

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

AMENDMENT NO. 1
TO
FORM F-3
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

Rail Vision Ltd.

(Exact name of registrant as specified in its charter)

Not Applicable

(Translation of Registrant's Name into English)

Israel

(State or other jurisdiction of
incorporation or organization)

7372

(Primary Standard Industrial
Classification Code Number)

Not Applicable

(I.R.S. Employer
Identification No.)

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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this Registration Statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.C. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.C. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933.

Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 7(a)(2)(B) of the Securities Act.

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until this Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling shareholder may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell securities and it is not soliciting an offer to buy securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated July 6, 2023

PROSPECTUS

7,894,736 Ordinary Shares



RAIL VISION LTD.

This prospectus relates to the resale, from time to time, by the selling shareholder identified in this prospectus, or the selling shareholder, of up to 7,894,736 ordinary shares, par value NIS 0.01 per share, or the Ordinary Shares, as further described below under “Our Company— Recent Financings,” consisting of (i) 3,947,368 Ordinary Shares to be held by the selling shareholder, and (ii) up to 3,947,368 Ordinary Shares issuable upon the exercise of the Warrants.

The selling shareholder is identified in the table on page 7. No Ordinary Shares or Warrants are being registered hereunder for sale by us. While we will not receive any proceeds from the sale of the Ordinary Shares by the selling shareholder, we will receive cash proceeds equal to the total exercise price of the Warrants to the extent that they are exercised. The exercise price of the Warrants is \$0.84 per Ordinary Share. See “Use of Proceeds.” The selling shareholder may sell all or a portion of the Ordinary Shares from time to time in market transactions through any market on which our Ordinary Shares are then traded, in negotiated transactions or otherwise, and at prices and on terms that will be determined by the then prevailing market price or at negotiated prices directly or through a broker or brokers, who may act as agent or as principal or by a combination of such methods of sale. See “Plan of Distribution.”

Our Ordinary Shares are listed on the Nasdaq Capital Market, or Nasdaq, under the symbol “RVSN.” On July 5, 2023, the last reported sale price of our Ordinary Shares was \$0.5833 per share. We do not intend to apply for listing of the Warrants on any securities exchange or other nationally recognized trading system.

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and are subject to reduced public company reporting requirements.

Investing in the securities involves a high degree of risk. See “Risk Factors” beginning on page 3 of this prospectus and in the documents incorporated by reference into this for a discussion of information that should be considered in connection with an investment in the Ordinary Shares.

Neither the Securities and Exchange Commission nor any state or other securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2023

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You should rely only on the information contained in this prospectus, including information incorporated by reference herein, and any free writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the selling shareholder have authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. The information in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our securities.

For investors outside of the United States: We and the selling shareholder have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus. In this prospectus, “we,” “us,” “our,” the “Company” and “Rail Vision” refer to Rail Vision Ltd., an Israeli corporation.

Our reporting currency and functional currency is the U.S. dollar. Unless otherwise expressly stated or the context otherwise requires, references in this prospectus to “dollars” or “\$” mean U.S. dollars, and references to “NIS” are to New Israeli Shekels. All references to “shares” in this prospectus refer to ordinary shares of Rail Vision Ltd. par value NIS 0.01 per share.

We are incorporated under Israeli law and, under the rules of the U.S. Securities and Exchange Commission, or the SEC, we are currently eligible for treatment as a “foreign private issuer.” As a foreign private issuer, we are not required to file periodic reports and financial statements with the SEC as frequently or as promptly as domestic registrants whose securities are registered under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

INDUSTRY AND MARKET DATA

This prospectus includes statistical, market and industry data and forecasts which we obtained from publicly available information and independent industry publications and reports that we believe to be reliable sources. These publicly available industry publications and reports generally state that they obtain their information from sources that they believe to be reliable, but they do not guarantee the accuracy or completeness of the information. Although we are responsible for all of the disclosures contained in this prospectus, including such statistical, market and industry data, we have not independently verified any of the data from third-party sources, nor have we ascertained the underlying economic assumptions relied upon therein. In addition, while we believe the market opportunity information included in this prospectus is generally reliable and is based on reasonable assumptions, such data involves risks and uncertainties, including those discussed under the heading “Risk Factors.”

PRESENTATION OF FINANCIAL INFORMATION

Our financial statements were prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP. We present our consolidated financial statements in U.S. dollars. Our fiscal year ends on December 31 of each year. Certain figures included in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables may not be an arithmetic aggregation of the figures that precede them.

TRADEMARKS AND TRADENAMES

We own or have rights to trademarks, service marks and trade names that we use in connection with the operation of our business, including our corporate name, logos and website names. Other trademarks, service marks and trade names appearing in this prospectus are the property of their respective owners. Solely for convenience, some of the trademarks, service marks and trade names referred to in this prospectus are listed without the ® and ™ symbols, but we will assert, to the fullest extent under applicable law, our rights to our trademarks, service marks and trade names.

OUR COMPANY

We are a development stage technology company that is seeking to revolutionize railway safety and the data-related market. We believe we have developed cutting edge, AI based, industry-leading detection technology specifically designed for railways, with investments from Knorr-Bremse AG, or Knorr-Bremse, a world-class rail system manufacturer. We have developed our railway detection and systems to save lives, increase efficiency, and dramatically reduce expenses for the railway operator. We believe that our technology will significantly increase railway safety around the world, while creating significant benefits and adding value for everyone who relies on the train ecosystem: from passengers using trains for transportation to companies that use railways to deliver goods and services. In addition, we believe that our technology has the potential to advance the revolutionary concept of autonomous trains into a practical reality.

Recent Financings

Registered Direct Offering and Concurrent Private Placement of Warrants

On May 10, 2023, we entered into definitive securities purchase agreements with investors for the purchase and sale of 3,947,368 of Ordinary Shares, at a purchase price of \$0.76 per unit in a registered direct offering, or the Registered Direct Offering. In a concurrent private placement, or the Private Placement, we also agreed to issue to the same investors a total of 3,947,368 warrants, or the Concurrent Warrants, each to purchase one Ordinary Share at an exercise price of \$0.84 per share. The Concurrent Warrants will be exercisable upon issuance and will have a 5-year term from the initial issuance date. The transactions closed on May 11, 2023.

Private Placement of Ordinary Shares and Warrants

In an additional concurrent private placement, or the KB Private Placement, we entered into a definitive securities purchase agreement for the purchase and sale of an aggregate of 3,947,368 Ordinary Shares and 3,947,368 5-year term common warrants, or the KB Warrants, at a purchase price of \$0.76 per unit, to Knorr-Bremse Rail Vehicle Systems, part of Knorr-Bremse, which is our largest shareholder. Knorr-Bremse is the global market leader for braking systems and a leading supplier of other mission-critical systems for rail and commercial vehicles. The KB Warrants, or, together with the Concurrent Warrants, the Warrants, are exercisable at \$0.84 per Ordinary Share. The KB Private Placement closed on June 21, 2023 following approval of such transaction by our shareholders.

In connection with the transactions mentioned above and pursuant to a registration rights agreement between the Company and the selling shareholders dated May 10, 2023, or the Registration Rights Agreement, we also granted registration right to the selling shareholders. Pursuant to the Registration Rights Agreement, we agreed to file this registration statement, or this Resale Registration Statement, as soon as reasonably practicable, but in any case prior to fifty days after the pricing date, or the Filing Date, to register the resale of the Ordinary Shares and the Ordinary Shares issuable upon exercise of the Warrants and to cause the Resale Registration Statement to be declared effective within thirty calendar days following the Filing Date, or, in the event of a full review by the SEC, sixty calendar days following the Filing Date, or the Resale Effectiveness Date. If the Resale Registration Statement is not declared effective by the SEC by the Resale Effectiveness Date, subject to certain permitted exceptions, we will be required to pay liquidated damages to the selling shareholders. On July 6, 2023, we filed a registration statement in respect of the Ordinary Shares issuable upon exercise of the Concurrent Warrants that were issued and sold in connection with the Private Placement.

In addition, the foregoing investors, including Knorr-Bremse, have entered into lock-up agreements pursuant to which, subject to certain exceptions, they have agreed not to sell or otherwise dispose of their ordinary shares for a period of sixty (60) days after the effectiveness date of this registration statement.

THE OFFERING

Ordinary Shares currently outstanding	23,986,224 Ordinary Shares (assumes no exercise of the Warrants).
Ordinary Shares offered by the selling shareholder	Up to 7,894,735 Ordinary Shares consisting of (i) 3,947,368 Ordinary Shares held by the selling shareholder, and (ii) up to 3,947,368 Ordinary Shares issuable upon the exercise of the Warrants.
Ordinary Shares to be outstanding assuming exercise of the Warrants	31,880,960 Ordinary Shares (including Warrants issued in connection with the Private Placement).
Use of proceeds:	We will not receive any proceeds from the sale of the Ordinary Shares by the selling shareholder. All net proceeds from the sale of the Ordinary Shares covered by this prospectus will go to the selling shareholder. However, we will receive cash proceeds equal to the total exercise price of the Warrants that are exercised. We intend to use the proceeds from the exercise of the Warrants for general corporate purposes (which for the avoidance of doubt may include acquisitions, in our discretion), including working capital. See "Use of Proceeds."
Risk factors:	You should read the "Risk Factors" section starting on page 3 of this prospectus, and "Item 3. - Key Information – D. Risk Factors" in our Annual Report on Form 20-F for the year ended December 31, 2022 incorporated by reference herein, and other information included or incorporated by reference in this prospectus for a discussion of factors to consider carefully before deciding to invest in our securities.
Nasdaq symbol:	"RVSN."

Unless otherwise stated, all information in this prospectus, is based on 23,986,224 Ordinary Shares outstanding as of July 6, 2023, and does not include the following as of that date:

- 2,332,352 Ordinary Shares reserved for issuance under our Amended Share Option Plan, of which options to purchase 1,931,828 Ordinary Shares were outstanding as of such date at a weighted average exercise price of \$2.07, of which 1,105,585 were vested as of such date; and
- 12,567,274 Ordinary Shares issuable upon the exercise of warrants, at a weighted average exercise price of \$2.17 (including the Concurrent Warrants and the KB Warrants).

RISK FACTORS

Investing in our securities involves significant risks. Before making an investment decision, you should carefully consider the risks described under the summary above, under “Risk Factors” in this prospectus and under Item 3.D. - “Risk Factors” in our most recent Annual Report on Form 20-F, or any updates in our Reports on Form 6-K, together with all of the other information appearing in this prospectus or incorporated by reference into this prospectus in light of your particular investment objectives and financial circumstances. The risks so described are not the only risks facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

The sale of a substantial number of our Ordinary Shares in the public market, including resale of the shares issued to the selling shareholders, could adversely affect the prevailing market price for our common stock.

We are registering for resale up to 11,842,104 of our Ordinary Shares issued and issuable to the selling shareholders pursuant to the securities purchase agreements in respect of the Private Placement and the KB Private Placement, of which 7,894,736 Ordinary Shares are being registered hereby, and the remaining 3,947,368 Ordinary Shares are being registered under a separate registration statement. Sales of substantial amounts of shares of our Ordinary Shares in the public market, or the perception that such sales might occur, could adversely affect the market price of our Ordinary Shares, and the market value of our other securities. We cannot predict if and when the selling shareholders may sell such shares in the public markets. Furthermore, in the future, we may issue additional Ordinary Shares or other equity or debt securities exercisable for, or convertible into, our Ordinary Shares. Any such issuances could result in substantial dilution to our existing shareholders and could cause our share price to decline.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the Private Securities Litigation Reform Act of 1995. Also, documents that we incorporate by reference into this prospectus, including documents that we subsequently file with the SEC, contain and will contain forward-looking statements. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words “may,” “will,” “could,” “should,” “expect,” “anticipate” “objective,” “goal,” “intend,” “estimate,” “believe,” “project,” “plan,” “assume” or other similar expressions, or negatives of those expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference in this prospectus regarding our future strategy, future operations, projected financial position, proposed products, anticipated collaborations, estimated future revenues, projected costs, future prospects, the future of our industry and results that might be obtained by pursuing management’s current plans and objectives, are forward-looking statements.

You should not place undue reliance on our forward-looking statements because the matters they describe are subject to certain risks, uncertainties and assumptions, including in many cases decisions or actions by third parties, that are difficult to predict. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this prospectus, or, in the case of forward-looking statements incorporated by reference, the date of the filing that includes the statement. Over time, our actual results, performance or achievements may differ from those expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our security holders. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

We have identified some of the important factors that could cause future events to differ from our current expectations and they are described in this prospectus and supplements to this prospectus (if any) under the caption “Risk Factors,” as well as in our most recent Annual Report on Form 20-F, including without limitation under the captions “Risk Factors” and “Operating and Financial Review and Prospects,” and in other documents that we may file with the SEC, all of which you should review carefully. Please consider our forward-looking statements in light of those risks as you read this prospectus, the documents incorporated by reference herein.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2022:

- on an actual basis;
- on an as adjusted basis to give further effect to the sale of (i) 3,947,368 Ordinary Shares and 3,947,368 Warrants in the Registered Direct Offering and Private Placement, respectively, at a combined purchase price of \$0.76 per Ordinary Shares and associated Warrants and (ii) 3,947,368 Ordinary Shares and 3,947,368 Warrants in the KB Private Placement at a combined purchase price of \$0.76 per Ordinary Shares and associated Warrants, after deducting estimated fees to the placement agent in the Registered Direct Offering and Private Placement and estimated offering expenses payable by us, as if the sale of the Ordinary Shares and Warrants (in the Registered Direct Offering and Private Placement) had occurred on December 31, 2022, and no exercise of Warrants.

The information in this table is derived from our audited financial information as of December 31, 2022, and should be read in conjunction with and is qualified by reference to such financial information and other financial information incorporated by reference into this prospectus.

U.S. dollars in thousands

	As of December 31, 2022	
	Actual	As Adjusted (1)
Cash and cash equivalents	\$ 8,270	13,670
Shareholders' equity:		
Ordinary shares	46	68
Additional paid in capital	63,033	68,411
Accumulated deficit	(54,814)	(54,814)
Total shareholders' equity	8,265	13,665
Total capitalization	8,265	13,665

- (1) The as adjusted additional paid-in capital includes warrants to be issued in connection with this offering are being accounted for as equity instruments in accordance with the guidance contained in ASC 815-40.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Ordinary Shares by the selling shareholder. All net proceeds from the sale of the Ordinary Shares covered by this prospectus will go to the selling shareholder. However, we will receive cash proceeds equal to the total exercise price of the Warrants that are exercised.

We intend to use the proceeds from the exercise of the Warrants for general corporate purposes (which for the avoidance of doubt may include acquisitions, in our discretion), including working capital.

Pending our use of the net proceeds from this offering, we may invest the net proceeds of this offering in a variety of capital preservation investments, including but not limited to short-term, investment grade, interest bearing instruments and U.S. government securities.

SELLING SHAREHOLDER

The Ordinary Shares being offered by the selling shareholder are those previously issued to the selling shareholder, and those issuable to the selling shareholder upon the exercise of the Warrants. For additional information regarding the issuances of those Ordinary Shares and Warrants, see “Recent Financings” above. We are registering the Ordinary Shares in order to permit the selling shareholder to offer the Ordinary Shares for resale from time to time. See “Item 7.B. Related Party Transactions” in our Annual Report on Form 20-F for additional information regarding our relationship with the selling shareholder.

The table below lists the selling shareholder and other information regarding the beneficial ownership of the Ordinary Shares by each of the selling shareholder. The second column lists the number of Ordinary Shares beneficially owned by the selling shareholder, based on its ownership of the Ordinary Shares and Warrants, as of July 5, 2023, assuming exercise of the warrants held by the selling shareholder on that date, without regard to any limitations on exercises.

The third column lists the Ordinary Shares being offered by this prospectus by the selling shareholder.

In accordance with the terms of a Registration Rights Agreement with the selling shareholder, this prospectus generally covers the resale of the sum of (i) the number of Ordinary Shares issued to the selling shareholder in the “Recent Financings” described above and (ii) the maximum number of Ordinary Shares issuable upon exercise of the related Warrants, determined as if the outstanding Warrants were exercised in full as of the trading day immediately preceding the date this registration statement was initially filed with the SEC, each as of the trading day immediately preceding the applicable date of determination and all subject to adjustment as provided in the Registration Rights Agreement, without regard to any limitations on the exercise of the Warrants. The fourth column assumes the sale of all of the Ordinary Shares offered by the selling shareholder pursuant to this prospectus.

The number of Ordinary Shares in the second column does not reflect this limitation. The selling shareholder may sell all, some or none of their Ordinary Shares in this offering. See “Plan of Distribution.”

Name of Selling Shareholder	Number of Ordinary Shares Beneficially Owned Prior to Offering	Maximum Number of Ordinary Shares to be Sold Pursuant to this Prospectus	Number of Ordinary Shares Beneficially Owned After Offering
Knorr-Bremse Systeme für Schienenfahrzeuge GmbH	13,748,314(1)	7,894,736(2)	5,853,578

- (1) Consists of: (i) 9,195,795 Ordinary Shares and (ii) 4,552,519 Ordinary Shares issuable upon the exercise of warrants (which includes the 3,947,368 KB Warrants). The shareholder is Knorr-Bremse Systeme für Schienenfahrzeuge GmbH, which is a 100% subsidiary of Knorr-Bremse AG which is a German company publicly traded on the Frankfurt Stock Exchange. As of January 1, 2023, Marc Llistosella is the chief executive officer of Knorr-Bremse AG.
- (2) Consists of: (i) 3,947,368 Ordinary Shares and (ii) 3,947,368 Ordinary Shares issuable upon the exercise of the KB Warrants.

PLAN OF DISTRIBUTION

The selling shareholder of the securities and any of their donees, pledgees, transferees, distributees, assignees and other successors-in-interest may, from time to time, sell any or all of their securities covered hereby on the principal trading market or any other stock exchange, market or trading facility on which the securities are traded or in private transactions. These sales may be at fixed or negotiated prices. A selling shareholder may use any one or more of the following methods when selling securities:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- settlement of short sales;
- in transactions through broker-dealers that agree with the selling shareholder to sell a specified number of such securities at a stipulated price per security;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling shareholder may also sell securities under Rule 144 or any other exemption from registration under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling shareholder may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling shareholder (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this Prospectus, in the case of an agency transaction not in excess of a customary brokerage commission in compliance with FINRA Rule 2121; and in the case of a principal transaction a markup or markdown in compliance with FINRA Rule 2121.

In connection with the sale of the securities or interests therein, the selling shareholder may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the securities in the course of hedging the positions they assume. The selling shareholder may also sell securities short and deliver these securities to close out their short positions, or loan or pledge the securities to broker-dealers that in turn may sell these securities. The selling shareholder may also enter into option or other transactions with broker-dealers or other financial institutions or create one or more derivative securities which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The selling shareholder and any broker-dealers or agents that are involved in selling the securities may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the securities purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling shareholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the securities.

We are required to pay certain fees and expenses incurred by us incident to the registration of the securities. We have agreed to indemnify the selling shareholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

We agreed to keep this prospectus effective until the earlier of (i) the date on which the securities may be resold by the selling shareholder without registration and without regard to any volume or manner-of-sale limitations by reason of Rule 144, without the requirement for us to be in compliance with the current public information under Rule 144 under the Securities Act or any other rule of similar effect or (ii) all of the securities have been sold pursuant to this prospectus or Rule 144 under the Securities Act or any other rule of similar effect. The resale securities will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale securities covered hereby may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale securities may not simultaneously engage in market making activities with respect to the Ordinary Shares for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling shareholder will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of the Ordinary Shares by the selling shareholder or any other person. We will make copies of this prospectus available to the selling shareholder and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

Certain legal matters concerning this offering will be passed upon for us by Greenberg Traurig, P.A., Tel Aviv, Israel. Certain legal matters with respect to the legality of the issuance of the securities offered by this prospectus will be passed upon for us by Shibolet & Co. Law Firm, Tel Aviv, Israel.

EXPERTS

The financial statements of Rail Vision Ltd. as of December 31, 2022 and 2021, and for each of the three years in the period ended December 31, 2022 incorporated in this Prospectus by reference from the Annual Report on Form 20-F for the year ended December 31, 2022, have been audited by Brightman Almagor Zohar & Co., a Firm in the Deloitte Global Network, an independent registered public accounting firm, as stated in their report thereon, incorporated herein. Such financial statements are incorporated in this Prospectus by reference in reliance upon such report given on the authority of said firm as experts in auditing and accounting.

EXPENSES

The following are the estimated expenses related to the filing of the registration statement of which this prospectus forms a part, all of which will be paid by us. With the exception of the SEC registration fee, all amounts are estimates and may change:

SEC registration fee	\$	228.81
Legal fees and expenses		25,000
Accounting fees and expenses		5,000
Miscellaneous		2,771.19
Total	\$	<u>33,000</u>

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information. The documents we are incorporating by reference as of their respective dates of filing are:

- Annual Report on [Form 20-F](#) for the year ended December 31, 2022, filed on March 23, 2023;
- our Reports of Foreign Private Issuer on Form 6-K filed on [May 11, 2023](#), [May 12, 2023](#), [May 15, 2023](#), [May 31, 2023](#), [June 9, 2023](#), [June 20, 2023](#) and [June 21, 2023](#).
- The description our Ordinary Shares, which is contained in our registration statement on [Form 8-A](#) filed with the SEC pursuant to the Exchange Act on March 25, 2022 (File No. 001-41334), as amended by [Exhibit 2.1](#) to our Annual Report on [Form 20-F](#) for the year ended December 31, 2022, and including any further amendment or report filed for the purpose of updating such description.

All subsequent annual reports filed by us pursuant to the Exchange Act on Form 20-F prior to the termination of an offering shall be deemed to be incorporated by reference to this prospectus and to be a part hereof from the date of filing of such documents. We may also incorporate part or all of any Form 6-K subsequently submitted by us to the SEC prior to the termination of an offering by identifying in such Forms 6-K that they, or certain parts of their contents, are being incorporated by reference herein, and any Forms 6-K so identified shall be deemed to be incorporated by reference in this prospectus and to be a part hereof from the date of submission of such documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

The information we incorporate by reference is an important part of this prospectus, and later information that we file with the SEC will automatically update and supersede the information contained in this prospectus.

We will provide you without charge, upon your written or oral request, a copy of any of the documents incorporated by reference in this prospectus, other than exhibits to such documents which are not specifically incorporated by reference into such documents. Please direct your written or telephone requests to us at: Rail Vision Ltd., 15 Hatidhar St. Ra’anana, 4366517 Israel. Attention: Ofer Naveh, Chief Financial Officer, telephone number: + 972-9-957-7706.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement on Form F-3 that we filed with the SEC relating to the securities offered by this prospectus, which includes additional information. You should refer to the registration statement and its exhibits for additional information. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreements or other document.

We are subject to the informational requirements of the Exchange Act applicable to foreign private issuers. We, as a “foreign private issuer,” are exempt from the rules under the Exchange Act prescribing certain disclosure and procedural requirements for proxy solicitations, and our officers, directors and principal shareholders are exempt from the reporting and “short-swing” profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchases and sales of shares. In addition, we are not required to file annual, quarterly and current reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

You can review our SEC filings and the registration statement by accessing the SEC’s internet site at <http://www.sec.gov>. We maintain a corporate website at <http://railvision.io/>. Information contained on, or that can be accessed through, our website does not constitute a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

ENFORCEABILITY OF CIVIL LIABILITIES

We are incorporated under the laws of the State of Israel. Service of process upon us and upon our directors and officers and the Israeli experts named in the registration statement of which this prospectus forms a part, all or a substantial majority of whom reside outside of the United States, may be difficult to obtain within the United States. Furthermore, because substantially all of our assets and all of our directors and officers are located outside of the United States, any judgment obtained in the United States against us or any of our directors and officers may not be collectible within the United States.

We have been informed by our legal counsel in Israel, Shibolet & Co., that it may be difficult to assert U.S. securities law claims in original actions instituted in Israel. Israeli courts may refuse to hear a claim based on a violation of U.S. securities laws because Israel is not the most appropriate forum to bring such a claim. In addition, even if an Israeli court agrees to hear a claim, it may determine that Israeli law and not U.S. law is applicable to the claim. If U.S. law is found to be applicable, the content of applicable U.S. law must be proved as a fact which can be a time-consuming and costly process. Certain matters of procedure will also be governed by Israeli law.

Subject to specified time limitations and legal procedures, Israeli courts may enforce a United States judgment in a civil matter which, subject to certain exceptions, is non-appealable, including judgments based upon the civil liability provisions of the Securities Act and the Exchange Act and including a monetary or compensatory judgment in a non-civil matter, provided that among other things:

- the judgment is obtained after due process before a court of competent jurisdiction, according to the laws of the state in which the judgment is given and the rules of private international law currently prevailing in Israel;
- the judgment is final and is not subject to any right of appeal;
- the prevailing law of the foreign state in which the judgment was rendered allows for the enforcement of judgments of Israeli courts;
- adequate service of process has been effected and the defendant has had a reasonable opportunity to be heard and to present his or her evidence;
- the liabilities under the judgment are enforceable according to the laws of the State of Israel and the judgment and the enforcement of the civil liabilities set forth in the judgment is not contrary to the law or public policy in Israel nor likely to impair the security or sovereignty of Israel;
- the judgment was not obtained by fraud and does not conflict with any other valid judgments in the same matter between the same parties;
- an action between the same parties in the same matter is not pending in any Israeli court at the time the lawsuit is instituted in the foreign court; and
- the judgment is enforceable according to the law of the foreign state in which the relief was granted.

If a foreign judgment is enforced by an Israeli court, it generally will be payable in Israeli currency, which can then be converted into non-Israeli currency and transferred out of Israel. The usual practice in an action before an Israeli court to recover an amount in a non-Israeli currency is for the Israeli court to issue a judgment for the equivalent amount in Israeli currency at the rate of exchange in force on the date of the judgment, but the judgment debtor may make payment in foreign currency. Pending collection, the amount of the judgment of an Israeli court stated in Israeli currency ordinarily will be linked to the Israeli Consumer Price Index plus interest at the annual statutory rate set by Israeli regulations prevailing at the time. Judgment creditors must bear the risk of unfavorable exchange rates.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 8. Indemnification of Directors and Officers

Indemnification

The Israeli Companies Law 5759-1999, or the Companies Law, and the Israeli Securities Law, 5728-1968, or the Securities Law, provide that a company may indemnify an office holder against the following liabilities and expenses incurred for acts performed by him or her as an office holder, either pursuant to an undertaking made in advance of an event or following an event, provided its articles of association include a provision authorizing such indemnification:

- a financial liability imposed on him or her in favor of another person by any judgment concerning an act performed in his or her capacity as an office holder, including a settlement or arbitrator's award approved by a court. However, if an undertaking to indemnify an office holder with respect to such liability is provided in advance, then such an undertaking must be limited to events which, in the opinion of the board of directors, can be foreseen based on the company's activities when the undertaking to indemnify is given, and to an amount or according to criteria determined by the board of directors as reasonable under the circumstances, and such undertaking shall detail the abovementioned foreseen events and amount or criteria;
- reasonable litigation expenses, including attorneys' fees, expended by the office holder (a) as a result of an investigation or proceeding instituted against him or her by an authority authorized to conduct such investigation or proceeding, provided that (1) no indictment (as defined in the Companies Law) was filed against such office holder as a result of such investigation or proceeding; and (2) no financial liability as a substitute for the criminal proceeding (as defined in the Companies Law) was imposed upon him or her as a result of such investigation or proceeding, or, if such financial liability was imposed, it was imposed with respect to an offense that does not require proof of criminal intent; and (b) in connection with a monetary sanction;
- reasonable litigation expenses, including attorneys' fees, expended by the office holder or imposed on him or her by a court: (1) in proceedings that the company institutes, or that another person institutes on the company's behalf, against him or her; (2) in a criminal proceedings of which he or she was acquitted; or (3) as a result of a conviction for a crime that does not require proof of criminal intent; and
- expenses incurred by an office holder in connection with an Administrative Procedure under the Securities Law, including reasonable litigation expenses and reasonable attorneys' fees. An "Administrative Procedure" is defined as a procedure pursuant to chapters H3 (Monetary Sanction by the Israeli Securities Authority), H4 (Administrative Enforcement Procedures of the Administrative Enforcement Committee) or I1 (Arrangement to prevent Procedures or Interruption of procedures subject to conditions) to the Securities Law.

Exculpation

Under the Companies Law, an Israeli company may not exculpate an office holder from liability for a breach of his or her duty of loyalty, but may exculpate in advance an office holder from his or her liability to the company, in whole or in part, for damages caused to the company as a result of a breach of his or her duty of care (other than in relation to distributions), but only if a provision authorizing such exculpation is included in its articles of association.

Limitations

The Companies Law provides that the Company may not exculpate or indemnify an office holder nor enter into an insurance contract that would provide coverage for any liability incurred as a result of any of the following: (1) a breach by the office holder of his or her duty of loyalty unless (in the case of indemnity or insurance only, but not exculpation) the office holder acted in good faith and had a reasonable basis to believe that the act would not prejudice us; (2) a breach by the office holder of his or her duty of care if the breach was carried out intentionally or recklessly (as opposed to merely negligently); (3) any act or omission committed with the intent to derive an illegal personal benefit; or (4) any fine, monetary sanction, penalty or forfeit levied against the office holder.

Under the Companies Law, exculpation, indemnification and insurance of office holders in a public company must be approved by the compensation committee and the board of directors and, with respect to certain office holders or under certain circumstances, also by the shareholders.

The Company's amended and restated articles of association permit the Company to exculpate, indemnify and insure its office holders to the fullest extent permitted or to be permitted by the Companies Law.

The Company enters into agreements with each of our directors and executive officers exculpating them from liability to the Company for damages caused to it as a result of a breach of duty of care and undertaking to indemnify them, in each case, to the fullest extent permitted by the Company's amended and restated articles of association to be effective upon the closing of this offering and the Companies Law, including with respect to liabilities resulting from this offering to the extent that these liabilities are not covered by insurance.

Item 9. Exhibits

Exhibit Number	Description of Document
3.1	Amended and Restated Articles of Association of Rail Vision Ltd. (filed as Exhibit 3.2 to our Registration Statement on Form F-1 as filed with the Securities and Exchange Commission on March 24, 2022 and incorporated herein by reference).
4.1	Form of Securities Purchase Agreement (filed as Exhibit 10.1 to our Report on Form 6-K furnished to the Securities and Exchange Commission on May 11, 2023 and incorporated herein by reference).
4.2	Form of Knorr-Bremse Securities Purchase Agreement (filed as Exhibit 10.2 to our Report on Form 6-K furnished to the Securities and Exchange Commission on May 11, 2023 and incorporated herein by reference).
4.3	Form of Common Warrant (filed as Exhibit 10.1 to our Report on Form 6-K furnished to the Securities and Exchange Commission on May 15, 2023 and incorporated herein by reference).
4.4	Form of Registration Rights Agreement (filed as Exhibit 10.3 to our Report on Form 6-K furnished to the Securities and Exchange Commission on May 11, 2023 and incorporated herein by reference).
4.5	Placement Agent Agreement dated May 10, 2023 (filed as Exhibit 10.4 to our Report on Form 6-K furnished to the Securities and Exchange Commission on May 11, 2023 and incorporated herein by reference).
5.1*	Opinion of Shibolet & Co.
23.1*	Consent of Brightman Almagor Zohar & Co., a Firm in the Deloitte Global Network.
23.2*	Consent of Shibolet & Co. (included in Exhibit 5.1).
24.1**	Power of Attorney (included on signature page).
107*	Filing Fee Table.

* Filed herewith.

** Previously filed.

Item 10. Undertakings

(a) The undersigned Registrant hereby undertakes:

1. To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and a(1)(iii) do not apply if the registration statement is on Form S-3 or Form F-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) To file a post-effective amendment to the registration statement to include any financial statements required by Item 8.A. of Form 20-F at the start of any delayed offering or throughout a continuous offering. Financial statements and information otherwise required by Section 10(a)(3) of the Act need not be furnished, *provided*, that the registrant includes in the prospectus, by means of a post-effective amendment, financial statements required pursuant to this paragraph (a)(4) and other information necessary to ensure that all other information in the prospectus is at least as current as the date of those financial statements. Notwithstanding the foregoing, with respect to registration statements on Form F-3, a post-effective amendment need not be filed to include financial statements and information required by Section 10(a)(3) of the Act or Rule 3-19 of this chapter if such financial statements and information are contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Form F-3.

(5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the Registrant is relying on Rule 430B:

A. Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

B. Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned Registrant hereby undertakes to deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Exchange Act; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information.

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

(e) The undersigned Registrant hereby undertakes that for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4), or 497(h) under the Securities Act of 1933 shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(f) The undersigned Registrant hereby undertakes that, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirement of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form F-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Ra'anana, Israel on July 6, 2023.

RAIL VISION LTD.

By: /s/ Shahar Hania
Shahar Hania
Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by each of the following persons in the capacities and on the dates indicated:

<u>/s/ Shahar Hania</u> Shahar Hania	Chief Executive Officer (Principal Executive Officer)	July 6, 2023
<u>/s/ Ofer Naveh</u> Ofer Naveh	Chief Financial Officer (Principal Financial and Accounting Officer)	July 6, 2023
<u>/s/ *</u> Mark Cleobury	Chairman of the Board	July 6, 2023
<u>/s/ *</u> Sam Donnerstein	Director	July 6, 2023
<u>/s/ *</u> Yossi Daskal	Director	July 6, 2023
<u>/s/ *</u> Inbal Kreiss	Director	July 6, 2023
<u>/s/ *</u> Eli Yoresh	Director	July 6, 2023
<u>/s/ *</u> Oz Adler	Director	July 6, 2023
<u>/s/ *</u> Maximillian Eichhorn	Director	July 6, 2023
<u>/s/ *</u> Keren Aslan	Director	July 6, 2023
<u>/s/ Shahar Hania</u> Shahar Hania Attorney-in-fact		

SIGNATURE OF AUTHORIZED REPRESENTATIVE IN THE UNITED STATES

Pursuant to the Securities Act of 1933, as amended, the undersigned, Puglisi & Associates, the duly authorized representative in the United States of Rail Vision Ltd., has signed this registration statement on July 6, 2023.

PUGLISI & ASSOCIATES

Authorized U.S. Representative

/s/ Donald J. Puglisi

Name: Donald J. Puglisi

Title: Managing Director

July 6, 2023

Rail Vision Ltd.
15 Ha'Tidhar St
Ra'anana, 4366517
Israel

Re: **Rail Vision Ltd. – Form F-3 Registration Statement**

We are acting as Israeli counsel for Rail Vision Ltd., an Israeli company (the “**Company**”), in connection with the offering of up to 7,894,736 ordinary shares of the Company, par value NIS 0.01 per share (each, an “**Ordinary Share**”) consisting of (i) 3,947,368 Ordinary Shares purchased by a shareholder, and (ii) up to 3,947,368 Ordinary Shares issuable upon the exercise of the warrants to purchase Ordinary Shares (the “**Warrants**” and together with the Ordinary Shares - the “**Securities**”). The Securities are being offered pursuant to a registration statement on Form F-3 (the “**Registration Statement**”) filed with the Securities and Exchange Commission (the “**Commission**”) on the date hereof under the Securities Act of 1933, as amended (the “**Securities Act**”) and the related prospectus which forms a part of and is included in the Registration Statement (the “**Prospectus**”):

As Israeli counsel of the Company, we have examined copies of the Articles of Association, as amended, of the Company and such corporate records, instruments, and other documents relating to the Company and such matters of law as we have considered necessary or appropriate for the purpose of rendering this opinion.

In such examination, we have assumed: (i) the authenticity of original documents and the genuineness of all signatures; (ii) the conformity to the originals of all documents submitted to us as copies; (iii) the truth, accuracy and completeness of the information, representations and warranties contained in the corporate records, documents, certificates and instruments we have reviewed; (iv) the due execution and delivery of all documents where due execution and delivery are a prerequisite to the effectiveness thereof; and (v) the legal capacity of all natural persons. As to any facts material to such opinion, to the extent that we did not independently establish relevant facts, we have relied on certificates of public officials and certificates of officers or other representatives of the Company

Based upon and subject to the foregoing, we are of the opinion that the Securities issued and to be issued pursuant to the Registration Statement, are validly issued.

Members of our firm are admitted to the Bar in the State of Israel, and we do not express any opinion as to the laws of any other jurisdiction. This opinion is limited to the matters stated herein and no opinion is implied or may be inferred beyond the matters expressly stated. In rendering our opinions, we have not considered, and hereby disclaim any opinion as to, the application or impact of any laws, cases, decisions, rules or regulations of any other jurisdiction, court or administrative agency. This opinion is expressly limited to the matters set forth above, and we render no opinion, whether by implication or otherwise, as to any other matters.

This opinion is rendered to you in connection with the filing of the Registration Statement. This opinion may not be relied upon for any other purpose, or furnished to, quoted or relied upon by any other person, firm or corporation for any purpose, without our prior written consent, except that (A) this opinion may be furnished or quoted to judicial or regulatory authorities having jurisdiction over you, and (B) this opinion may be relied upon by purchasers and holders of the securities covered by the Registration Statement currently entitled to rely on it pursuant to applicable provisions of federal securities law.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to the reference to this firm under the caption “Legal Matters” in the Registration Statement. In giving such consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the SEC promulgated thereunder, or Item 509 of the SEC’s Regulation S-K promulgated under the Securities Act.

Very truly yours,

/s/ Shibolet & Co.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form F-3, as amended, of our report dated March 23, 2023 relating to the financial statements of Rail Vision Ltd. (the “Company”), appearing in the Annual Report on Form 20-F of the Company for the year ended December 31, 2022. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ Brightman Almagor Zohar & Co.

Brightman Almagor Zohar & Co

Certified Public Accounts

A Firm in the Deloitte Global Network

Tel Aviv, Israel

July 6, 2023

Calculation of Filing Fee Table

Form F-3
(Form Type)

Rail Vision Ltd.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share ⁽⁴⁾	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Ordinary shares, par value NIS 0.01 per share	457(c)	3,947,368 ⁽²⁾	\$ 0.526 ⁽³⁾	\$ 2,076,315.57	\$ 0.0001102	\$ 228.81
Total Offering Amount			3,947,368		\$ 2,076,315.57		\$ 228.81
Total Fees Previously Paid							998.33
Total Fee Offsets							—
Net Fee Due							<u>\$ 0</u>

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended, or the Securities Act, the Registrant is also registering hereunder an indeterminate number of additional shares of common stock that shall be issuable pursuant to Rule 416 to prevent dilution resulting from stock splits, stock dividends or similar transactions.
- (2) Consists of an aggregate of 3,947,368 Ordinary Shares issuable upon the exercise of warrants. All 3,947,368 Ordinary Shares are to be offered for resale by the selling shareholders named in the prospectus contained in this Registration Statement on Form F-3.
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act and based upon the average of the high and low sale prices of the Registrant's shares of common stock on the Nasdaq Capital Market on June 29, 2023.
- (4) The Registrant will not receive any proceeds from the sale of its Ordinary Shares by the selling shareholders.