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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

RAIL VISION LTD.

(Exact name of registrant as specified in its charter)

	tate of Israel	Not applicable				
	other jurisdiction of	(I.R.S. Employer				
incorpora	ation or organization)	Identification No.)				
		St, Ra'anana, 4366517 Israel Principal Executive Offices)				
		Amended Share Option Plan ll title of the plan)				
	850 Library Ave.	glisi& Associates , Suite 204, Newark, DE 19711 l: (302) 738-6680				
		ephone Number of Agent for Service)				
		COPIES TO:				
Greenber One A Round To 132 Mena Tel A	uberman, Esq. rg Traurig, P.A. zrieli Center ower, 30th floor chem Begin Rd viv 6701101 12-364-1633	Gal Rahav, Adv Shibolet Law Fir 4 Yitzhak Sadeh S Tel-Aviv 6777504, Is	Ron Soulema, Adv. Gal Rahav, Adv. Shibolet Law Firm 4 Yitzhak Sadeh St. Tel-Aviv 6777504, Israel Tel: +972-3-3075000			
	definitions of "large accelerated filer,"	iler, an accelerated filer, a non-accelerated filer, a smaller "accelerated filer," "smaller reporting company" and "er				
Large accelerated filer		Accelerated filer				
Non-accelerated filer	⊠	Smaller reporting company Emerging growth company				
	y, indicate by check mark if the registra standards provided pursuant to Section	ant has elected not to use the extended transition period for $7(a)(2)(B)$ of the Securities Act. \boxtimes	r complying with any new			

EXPLANATORY NOTE

Rail Vision Ltd. (the "Company" or the "Registrant") previously filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-8 (File No. 333-265968) to register under the Securities Act of 1933, as amended (the "Securities Act") an aggregate of 2,309,956 ordinary shares of the Registrant (the "Ordinary Shares") issuable upon the exercise of options under the Rail Vision Ltd. Amended Share Option Plan (the "Plan"). The previously-filed registration statement is referred to herein as the "Prior Registration Statement."

On November 15, 2023, the Company effected a one-for-eight (1-for-8) reverse stock split of its ordinary share (the "Reverse Split") which reduced the number of shares reserved under the Plan to 288,745. On August 6, 2024, the Company's Board of Directors, approved an amendment to the Plan in order to increase the number of shares reserved under the Plan to 4,288,745.

In accordance with General Instruction E to Form S-8, the Company is filing this registration statement on Form S-8 solely to register an additional 4,000,000 Ordinary Shares, which may be issued under the Plan over and above the number of Ordinary Shares issuable pursuant to the Plan that were registered under the Prior Registration Statement. Pursuant to General Instruction E to Form S-8, the contents of the Prior Registration Statement are hereby incorporated by reference in their entirety, with the exception of Items 3 and 8 of Part II of such Prior Registration Statement, each of which is amended and restated in its entirety herein.

PART II

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE

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The following documents filed by Rail Vision Ltd., an Israeli company (the "Registrant"), with the U.S. Securities and Exchange Commission (the "Commission") are incorporated by reference into this Registration Statement:

- (a) The Registrant's Annual Report on Form 20-F for the year ended December 31, 2023 filed with the SEC on March 28, 2024;
- (b) The Registrant's Reports on Form 6-K filed with the Commission on March 29, 2024, April 3, 2024, April 11, 2024, May 21, 2024, May 24, 2024, June 11, 2024, June 14, 2024, June 24, 2024, June 25, 2024, and July 2, 2024, July 26, 2024, and July 31, 2024 (File No. 001-41334); and
- (c) The description of the Registrant's ordinary shares, par value NIS 0.01 per share (the "**Ordinary Shares**"), which is contained in the Registrant's Registration Statement on <u>Form 8-A</u> filed with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the "**Exchange Act**") on March 25, 2022 (File No. 001-41334), as amended by <u>Exhibit 2.1</u> to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2023, and including any further amendment or report filed for the purpose of updating such description.

In addition to the foregoing, all documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, and all reports on Form 6-K subsequently filed by the Registrant which state that they are incorporated by reference herein, prior to the filing of a post-effective amendment which indicates that all securities offered hereunder have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference herein and to be part hereof from the date of filing of such documents and reports.

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 registration statement to the extent that a statement herein, or in any subsequently filed document which also is or is deemed to be incorporated by reference, modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

ITEM 8. EXHIBITS.

5.1*	Opinion of Shibolet & Co., Israeli counsel to Rail Vision Ltd.
23.1*	Consent of Brightman Almagor Zohar & Co., independent registered public accounting firm, and a firm in the Deloitte Global Network.
23.2*	Consent of Shibolet & Co, Israeli counsel to Rail Vision Ltd. (included in the opinion filed as Exhibit 5.1 to this Registration Statement).
24.1*	Power of Attorney (included on signature page).
99.1	Rail Vision Ltd. Amended Share Option Plan, amended as of March 28, 2024 (filed as Exhibit 4.4 to our Report on Form 20-F furnished to the Securities and Exchange Commission on March 28, 2024 and incorporated herein by reference).
107*	Filing Fee Table.

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement on Form S-8 to be signed on its behalf by the undersigned, thereunto duly authorized, in Rehovot, State of Israel, on August 7, 2024.

RAIL VISION LTD.

By: /s/ Shahar Hania

Name: Shahar Hania

Title: Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned officers and directors of Rail Vision, Ltd., hereby severally constitute and appoint Shahar Hania and Ofer Naveh, and each of them individually, our true and lawful attorney to sign for us and in our names in the capacities indicated below any and all amendments or supplements, including any post-effective amendments, to this Registration Statement on Form S-8 and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming our signatures to said amendments to this Registration Statement signed by our said attorney and all else that said attorney may lawfully do and cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-8 has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date		
/s/ Shahar Hania Shahar Hania	Chief Executive Officer and Director (principal executive officer)	August 7, 2024		
/s/ Ofer Naveh Ofer Naveh	Chief Financial Officer (principal financial officer and principal accounting officer)	August 7, 2024		
/s/ Eli Yoresh Eli Yoresh	Chairman of the Board	August 7, 2024		
/s/ Oz Adler Oz Adler	Director	August 7, 2024		
/s/ Yossi Daskal Yossi Daskal	Director	August 7, 2024		
/s/ Mark Cleobury Mark Cleobury	Director	August 7, 2024		
/s/ Ariel Dor Ariel Dor	Director	August 7, 2024		
/s/ Hila Kiron-Revach Hila Kiron-Revach	Director	August 7, 2024		
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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 Form S-8 on August 7, 2024.

/s/ Puglisi & Associates
Puglisi & Associates

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Rail Vision Ltd. 15 Ha'Tidhar St Ra'anana, 4366517 <u>Israel</u>

Re: Rail Vision Ltd. - Form S-8 Registration Statement

We are acting as Israeli counsel for Rail Vision Ltd., an Israeli company (the "Company"), in connection with the preparation of a Registration Statement on Form S-8 on August 7, 2024 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act"), relating to the registration of 4,000,000 of the Company's ordinary shares, no par value (the "Plan Shares"), under the Rail Vision Amended Share Option Plan (the "Plan").

In rendering our opinion, we have examined, and have relied as to factual matters solely upon, originals or copies certified, or otherwise identified to our satisfaction, of such documents, corporate records or other instruments as we have deemed necessary or appropriate for the purposes of this opinion. In our examination we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, and the conformity with the originals of all documents submitted to us as copies. We have, when relevant facts material to our opinion were not independently established by us, relied to the extent we deemed such reliance proper upon written or oral statements of officers and other representatives of the Company.

In giving the opinion expressed herein, no opinion is expressed as to the laws of any jurisdiction other than the State of Israel.

Based upon and subject to the foregoing, we are of the opinion that the Plan Shares, when issued pursuant to the terms of the Plan, and the terms of any agreements relating to such issuance, will be upon receipt of the consideration provided for in the Plan, validly issued, fully paid and non-assessable.

This opinion is intended solely for the benefit and use of the Company and other persons who are entitled to rely on the Registration Statement, and is not to be used, released, quoted, or relied upon by anyone else for any purpose (other than as required by law), without our prior written consent.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement, and to the use of our name wherever appearing in the Registration Statement in connection with Israeli law. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

Shibolet & Co.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 pertaining to the Amended Share Option Plan of our report dated March 28, 2024, 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, 2023.

/s/ Brightman Almagor Zohar & Co.

Brightman Almagor Zohar & Co. Certified Public Accountants A Firm in the Deloitte Global Network

Tel Aviv, Israel August 7, 2024

Calculation of Filing Fee Table

Form S-8 (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	Maximum Aggregate Offering Price	Fee Rate		nount of gistration Fee
Fees to be Paid	Equity	Ordinary shares, no par value, reserved for issuance under the Rail Vision Ltd. Amended Share		(2)					
	T 4 1 0 66	Option Plan	457(h)	4,000,000(2)	\$ 0.62(3)	\$2,480,000.00	\$ 0.0001476	\$	366.05
	Total Offering Amount		4,000,000		\$2,480,000.00		3	366.05	
	Total Fees	Previously Paid							_
	Total Fee	Offsets							
	Net Fee D	ue						\$	366.05

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement (the "Registration Statement") shall also cover any additional ordinary shares that become issuable under the Rail Vision Ltd. Amended Share Option Plan, as amended and ratified on March 28, 2024 (the "Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) Represents Ordinary Shares reserved for issuance upon the exercise of options and restricted share units that may be granted under the Plan to which this Registration Statement relates.
- (3) The proposed maximum offering price per share is calculated in accordance with Rules 457(c) and 457(h) under the Securities Act, solely for purposes of calculating the registration fee on the basis of \$0.62 per share, the average of the high and low price of the Registrant's ordinary shares as reported on the Nasdaq Capital Market on August 5, 2024.