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

FORM S-8 REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

LUMINAR TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization) 83-1804317 (I.R.S. Employer Identification No.)

2603 Discovery Drive, Suite 100 Orlando, Florida 32826 (Address of Principal Executive Offices) (Zip Code)

Luminar Technologies, Inc. Amended and Restated 2020 Equity Incentive Plan (Full title of the plan)

> Paul Ricci Chief Executive Officer 2603 Discovery Drive, Suite 100 Orlando, Florida 32826 Telephone: (800) 532-2417

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Daniel S. Kim, Esq.
Mitchell Zuklie, Esq.
William L. Hughes, Esq.
Orrick, Herrington & Sutcliffe LLP
631 Wilshire Boulevard
Santa Monica, California 90401
Tel: (301) 633-2800

Alexander Fishkin, Esq. Chief Legal Officer 2603 Discovery Drive, Suite 100 Orlando, Florida 32826 Telephone: (800) 532-2417

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer	
		Ш
Non-accelerated filer	Smaller reporting company	\boxtimes
	Emerging growth company	

If an emerging growth company, 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.

REGISTRATION OF ADDITIONAL SHARES PURSUANT TO GENERAL INSTRUCTION E

Pursuant to General Instruction E of Form S-8, Luminar Technologies, Inc. (the "Registrant") is filing this Registration Statement with the Securities and Exchange Commission (the "Commission") to register an increase of 2,500,000 shares of Class A common stock to the employee share pool for potential issuance as part of the Registrant's ordinary course of business, as approved at the 2025 Annual Meeting of Stockholders on July 3, 2025. The Registrant previously registered shares of its Class A common stock for issuance under the Plan on February 26, 2021 (Registration No. 333-253658), June 22, 2022 (Registration No. 333-265752), June 9, 2023 (Registration No. 333-272577), June 7, 2024 (Registration No. 333-280049) and April 1, 2025 (Registration No. 333-286311). This Registration Statement hereby incorporates by reference the contents of the Registrant's registration statements referenced above.

Item 8. Exhibits.

The following documents are filed as exhibits to this Registration Statement.

		incorporated by Reference					
Exhibit Number	Description of Exhibit	Form	File No.	Exhibit/Appendix	Filing Date	Filed Herewith	
5.1	Opinion of Orrick, Herrington & Sutcliffe LLP.					X	
23.1	Consent of Independent Registered Public Accounting Firm.					X	
23.2	Consent of Orrick, Herrington & Sutcliffe LLP (included in Exhibit 5.1).					X	
24.1	Power of Attorney (included in the signature page to this Registration Statement).					X	
99.1	Amended and Restated 2020 Equity Incentive Plan.	DEF 14A	001-38791	A	6/6/2025		
107	Filing Fee Table.					X	

Incorporated by Reference

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 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Orlando, Florida, on July 28, 2025.

LUMINAR TECHNOLOGIES, INC.

By: /s/ Thomas J. Fennimore

Thomas J. Fennimore

Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Paul Ricci, Alexander Fishkin and Thomas J. Fennimore, and each of them, as his or her true and lawful attorney-in-fact and agent with the full power of substitution, for him or her, in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments to this Registration Statement on Form S-8), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or his or her substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons on behalf of the Registrant in the capacities and on the dates indicated:

Signature	Title	Date	
/s/ Paul Ricci	Chief Executive Officer, Director	Index 20, 2025	
Paul Ricci	(Principal Executive Officer)	July 28, 2025	
/s/ Thomas J. Fennimore Thomas J. Fennimore	Chief Financial Officer (Principal Financial and Accounting Officer)	July 28, 2025	
Thomas J. I chimnore	(Fine-par Financial and Accounting Officer)		
/s/ Alec E. Gores	Director	July 28, 2025	
Alec E. Gores	2		
/s/ Mary Lou Jepsen, PhD	Director	July 28, 2025	
Mary Lou Jepsen, PhD	2		
/s/ Shaun Maguire, PhD	Director	July 28, 2025	
Shaun Maguire, PhD	2		
/s/ Katharine A. Martin	Director	July 28, 2025	
Katharine A. Martin	Bilector		
	Director		
Austin Russell	Director		
/s/ Dominick Schiano			
	Director	July 28, 2025	
Dominick Schiano	Bilector		
/s/ Matthew J. Simoncini			
	Director	July 28, 2025	
Matthew J. Simoncini	Director.		
/s/ Daniel D. Tempesta		July 28, 2025	
Daniel D. Tempesta	Director	July 20, 2023	

Calculation of Filing Fee Tables

Form S-8 (Form Type)

Luminar Technologies, Inc. (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 Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Class A Common Stock, \$0.0001 par value per share	Other	2,500,000(2)	\$3.24 ⁽³⁾	\$8,100,000.00	0.0001531	\$1,240.11
Total Offering Amounts				\$8,100,000.00		\$1,240.11	
Total Fee Offsets						_	
Net Fee Due				_		\$1,240.11	

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement on Form S-8 (the "Registration Statement") shall also cover any additional shares of the Class A common stock, \$0.0001 par value per share (the "Common Stock"), of Luminar Technologies, Inc. (the "Registrant") that become issuable with respect to the securities identified in the above table, by reason of any stock dividend, stock splits, reverse stock splits, recapitalizations, reclassifications, mergers, split-ups, reorganizations, consolidations and other capital adjustments effected without receipt of consideration that increases the number of outstanding shares of Common Stock.
- (2) Represents a total of 2,500,000 shares of additional Common Stock reserved for issuance under the Amended and Restated 2020 Equity Incentive Plan (the "2020 Plan") resulting from an increase of shares of Common Stock available for issuance under the 2020 Plan approved by the Registrant's stockholders on July 3, 2025 at the Annual Meeting of Stockholders..
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act on the basis of \$3.24, the average of the high and low prices of a share of Common Stock as reported on The Nasdaq Stock Market LLC on July 22, 2025.



631 WILSHIRE BOULEVARD SUITE 2C SANTA MONICA, CA 90401 +1-310-633-2800

July 28, 2025

Luminar Technologies, Inc. 2603 Discovery Drive, Suite 100 Orlando, Florida 32826

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel for Luminar Technologies, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's registration statement on Form S-8 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of the Company's Class A common stock, par value \$0.0001 per share, in the amount of 2,500,000 shares (the "Additional Shares") that have been added to the reserve under the Luminar Technologies, Inc. Amended and Restated 2020 Equity Incentive Plan, as amended (as so amended, the "Plan"), as a result of the approval thereof by the stockholders of the Company on July 3, 2025.

In connection with rendering this opinion, we have examined and relied upon originals or copies, certified or otherwise identified to our satisfaction, of (i) the Company's Second Amended and Restated Certificate of Incorporation, as amended through the date hereof, (ii) the Company's Amended and Restated Bylaws effective as of December 2, 2020, as amended through the date hereof, (iii) the Plan, (iv) certain resolutions of the Company's Board of Directors adopted on May 27, 2025 and (v) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary or appropriate as a basis for the opinion set forth below.

In our examination, we have assumed the legal capacity of all natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and of public officials.

Based on the foregoing and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Additional Shares to be issued pursuant to the terms of the Plan have been duly authorized and, when issued, delivered and paid for in accordance with the terms of the Plan, will be validly issued, fully paid and non-assessable.



Luminar Technologies, Inc. July 28, 2025 Page 2

The opinion expressed herein is limited to General Corporation Law of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ ORRICK, HERRINGTON & SUTCLIFFE LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 28, 2025, relating to the financial statements of Luminar Technologies, Inc. appearing in the Annual Report on Form 10-K of Luminar Technologies, Inc., for the year ended December 31, 2024.

/s/ Deloitte & Touche LLP

San Jose, California

July 28, 2025