SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

PRE-EFFECTIVE AMENDMENT NO. 3

TO FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

AELUMA, INC.

(Exact name of registrant as specified in its charter)

3674

Delaware (State or other jurisdiction of

incorporation or organization)

(Primary Standard Industrial Classification Code Number) 85-2807351 (I.R.S. Employer Identification Number)

27 Castilian Drive Goleta, California 93117 (805) 351-2707

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Mr. Jonathan Klamkin Chief Executive Officer 27 Castilian Drive Goleta, California 93117 (805) 351-2707

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With copies to:

Louis Taubman, Esq Hunter Taubman Fischer & Li LLC 950 Third Ave., 19th Floor New York, New York 10022 (212) 530-2206 Jonathan Zimmerman Tyler Vivian Faegre Drinker Biddle & Reath LLP 2200 Wells Fargo Center 90 S. Seventh Street Minneapolis, Minnesota 55402 (612) 776-7000

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this registration statement is declared effective.

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 post-effective amendment filed pursuant to Rule 462(d) 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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	
Non-accelerated filer	\mathbf{X}	Smaller reporting company	\times
		Emerging growth company	\times

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.

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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Pre-Effective Amendment No. 3 (the "Pre-Am No. 3") to the Registration Statement on Form S-1 (File No. 333-285469), initially filed on February 28, 2025, is being filed as an exhibits-only filing. Accordingly, this amendment consists only of the facing page, this explanatory note, Item 16(a) of Part II of the Registration Statement, the signature page to the Registration Statement and the filed exhibit. The remainder of the Registration Statement is unchanged and has therefore been omitted.

No additional securities are being registered under this Pre-Am No. 3. All applicable registration fees were previously paid.

PART II - INFORMATION NOT REQUIRED IN PROSPECTUS

Item 16. Exhibits and Financial Statement Schedules

Exhibit No.	Description
1.1	Form of Underwriting Agreement ⁽⁹⁾
2.1	Agreement and Plan of Merger and Reorganization among Parc Investments, Inc., Aeluma Operating Co. and Biond Photonics, Inc.**
3.1	Certificate of Merger relating to the merger of Aeluma Operating Co. with and into Biond Photonics, Inc., filed with the Secretary of State of the State of
	California on June 22, 2021**
3.2	Amended and Restated certificate of incorporation, filed with the Secretary of State of the State of Delaware on June 22, 2021**
3.3	Amended and Restated Bylaws. **
4.1	Form of Lock Up Agreement**
4.2	Form of Placement Agent Warrant**
4.3	Form of Placement Agent Warrant dated December 2022 ⁽⁴⁾
4.4	Form of Underwriter Warrant ⁽⁸⁾
4.5	Form of Convertible Note issued in 2024 ⁶⁰
4.6	Form of Non-qualified Option to purchase Common Stock ⁽⁷⁾
5.1	Opinion of Hunter Taubman Fischer & Li LLC
10.1	Reserved.
10.2	Form of Post-Merger Indemnification Agreement**
10.3	Form of Pre-Merger Indemnification Agreement**
10.4	Form of Subscription Agreement, dated June 22, 2021, by and between the Company and the parties thereto**
10.5 10.6+	Registration Rights Agreement, dated June 22, 2021, by and between the Company and the parties thereto** 2021 Equity Incentive Plan and form of award agreements**
10.6+	
10.7	Restricted Stock Purchase Agreement between Biond Photonics, Inc., and Mr. Klamkin ⁽¹⁾
	Restricted Stock Purchase Agreement between Biond Photonics, Inc., and Mr. McCarthy. ⁽¹⁾
10.9	Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated December 21, 2020(1)
10.10	Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated June 10, 2021(1)
10.11	Advisory Agreement between Biond Photonics, Inc. and Dr. DenBaars, dated December 31, 2020 ⁽¹⁾
10.12	Advisory Agreement between Biond Photonics, Inc. and Dr. DenBaars, dated June 10, 2021(1)
10.13	Reserved
10.14	Independent Director Agreement with John Paglia, effective as of December 1, 2021 ⁽²⁾
10.15	Subscription Agreement ⁽²⁾
10.16	Registration Rights Agreement ⁽²⁾
10.17	Form of Note Purchase Agreement ⁽²⁾
10.18	Reserved
10.19	Independent Director Agreement with Craig Ensley, effective as of December 14, 2023 ⁽³⁾
10.20	Director Agreement dated February 24, 2025 ⁽⁷⁾
10.21	Indemnification Agreement dated February 24, 2025 ⁽⁷⁾
16.1	Letter from Raich Ende Malter & Co. LLP as to the change in certifying accountant, dated June 28, 2021***
21.1	Subsidiaries of the Registrant**
23.1	Consent of Rose, Snyder & Jacobs LLP ⁽⁸⁾
23.2	Consent of Hunter Taubman Fischer & Li LLC (Included in Exhibit 5.1)
107	Filing Fee Table ⁽⁹⁾
+ Indicat	es a management contract or any compensatory plan, contract, or arrangement.

Indicates a management contract or any compensatory plan, contract, or arrangement
 Incompensatory plan, contract, or arrangement

** Incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021.

*** Incorporated by reference to the Current Report on Form 8-K filed on July 1, 2021.

(1) Incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021.

(2) Incorporated by reference to the Annual Report on Form 10-K filed on September 27, 2024

(3) Incorporated by reference to the Quarterly Report on Form 10-Q filed on February 11, 2025.

(4) Incorporated by reference to the Current Report on Form 8-K filed on December 23, 2022.

(5) Reserved.

(6) Incorporated by reference to the Current Report on Form 8-K filed on August 6, 2024.

(7) Incorporated by reference to the Current Report on Form 8-K filed on February 26, 2025.

(8) Incorporated by reference to the Registration Statement on Form S-1/A filed on March 20, 2025.

(9) Incorporated by reference to the Registration Statement on Form S-1/A filed on March 25, 2025.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Goleta, State of California, on March 25, 2025.

By: /s/ Jonathan Klamkin

Name: Jonathan Klamkin Title: Chief Executive Officer & Chairman

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

Signature	Title	Date
/s/ Jonathan Klamkin Jonathan Klamkin	President, Chief Executive Officer, and Chairman (Principal Executive Officer)	March 25, 2025
/s/ James Seo James Seo	Interim Chief Financial Officer (Principal Financial Officer)	March 25, 2025
/s/ Craig Ensley Craig Ensley	Director	March 25, 2025
/s/ Steven DenBaars Steven DenBaars	Director	March 25, 2025
/s/ John Paglia John Paglia	Director	March 25, 2025
/s/ Michael Byron Michael Byron	Director	March 25, 2025

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HUNTER TAUBMAN FISCHER & LI LLC

NEW YORK WASHINGTON, D.C. MIAMI

March 25, 2025

Aeluma, Inc. 27 Castilian Drive Goleta, California 93117

Ladies and Gentlemen:

We have acted as counsel to Aeluma, Inc. (the "**Company**"), in connection with the Registration Statement on Form S-1 initially filed with the U.S. Securities and Exchange Commission (the "**Commission**") on February 28, 2025, as amended (the "**Registration Statement**"), under the Securities Act of 1933, as amended (the "**Securities Act**"), for the registration of (i) 1,739,130 shares of common stock, par value \$0.0001 per share (the **Primary Shares**"), (ii) certain warrants (in the form filed as an exhibit to the Registration Statement) to be issued to the representative of the underwriters to purchase up to 86,957 shares of common stock (the "Warrants"), (iii) up to 86,957 shares of common stock, par value \$0.0001 per share, issuable upon the exercise of the Warrants granted to the representative by the Company (the "Warrant Shares"), pursuant to the Underwriting Agreement between the Company and the underwriter named therein (the "Underwriting Agreement"), (iv) at the option of the underwriter, up to an additional 260,870 shares of common stock of the Company (the "Option Shares," together with the Primary Shares, the "Offering Shares"), and (v) up to 898,573 shares of common stock, par value \$0.0001 per share, to be offered by certain selling stockholders named in the Registration Statement (the "**Resale Shares**").

A. Opinion Regarding the Validity of the Shares of Common Stock Being Registered

In connection with the opinion expressed in Section A hereof, we have examined and are familiar with the articles of incorporation and the bylaws of the Company, as each of the same has been amended through the date hereof, and have examined the originals, or copies certified or otherwise identified to our satisfaction, of corporate records, including minute books and resolutions, of the Company. We have also examined the Registration Statement and such statutes and other records, instruments, and documents pertaining thereto that we have deemed necessary to examine for the purposes of this opinion. In our examination, we have assumed the completeness and authenticity of any document submitted to us as an original, the completeness and conformity to the originals of any document submitted to us as a copy, the authenticity of the originals of such copies, the genuineness of all signatures, and the legal capacity and mental competence of natural persons. With respect to certain facts, we have considered it appropriate to rely upon certificates or other comparable documents of public officials and officers or other appropriate representatives of the Company, without investigation or analysis of any underlying data contained therein. This opinion is limited to our review of the Delaware General Corporation Law as currently in effect, and we express no opinion as to the effect of any other law of the State of Delaware or the laws of any other jurisdiction.

On the basis of and in reliance upon the foregoing, we are of the opinion that:

1. The Offering Shares registered under the Registration Statement, when and if issued by the Company in the manner described in the Registration Statement (in the form declared effective by the Commission) and duly purchased and paid for, will be legally issued, fully paid, and nonassessable.

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HUNTER TAUBMAN FISCHER & LI LLC

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- The Warrant Shares registered under the Registration Statement, when and if issued by the Company upon the exercise of the Warrants in accordance with the terms thereof, will be legally issued, fully paid, and nonassessable.
- 3. The Resale Shares have been validly issued and are fully paid and nonassessable.

B. Opinion Regarding the Enforceability of the Warrants

You have also requested our opinion as to the matters set forth below in connection with the enforceability of the Warrants. For purposes of rendering that opinion, we have examined: (i) the Registration Statement; (ii) the most recent prospectus included in the Registration Statement on file with the Commission as of the date of this opinion letter; (iii) the Underwriting Agreement; (iv) the Warrants; and (v) the records of corporate actions of the Company relating to the Registration Statement, the Underwriting Agreement, and the Warrants and matters in connection therewith. We have also made such other investigations as we have deemed appropriate. We have examined and relied upon certificates of public officials and, as to certain matters of fact that are material to our opinion, we have also relied on certificates of officers of the Company.

We have made the assumptions that are customary in opinion letters of this kind, including, without limitation: (i) that each document submitted to or reviewed by us is accurate and complete; (ii) that each such document that is an original is authentic and each such document that is a copy conforms to an authentic original; (iii) that all signatures on each such document are genuine; (iv) the legal capacity of all natural persons; (v) that each such document, other than the Warrants with respect to the Company, constitutes a legal, valid, and binding obligation of each party thereto, enforceable against each such party in accordance with its terms; (vi) that there are no documents or agreements by or among any of the parties thereto, other than those referenced in this opinion letter, that could affect the opinion expressed herein and no undisclosed modifications, waivers, or amendments (whether written or oral) to any of the documents reviewed by us in connection with this opinion letter; and (vii) that all parties have complied with all statue and federal statutes, rules, and regulations applicable to them relating to the transactions set forth in the Underwriting Agreement and the Warrants. We have further assumed that the Company will not in the future issue, or otherwise make unavailable, such number of shares of common stock that there will be an insufficient number of authorized but unissued shares of common stock for the issuance pursuant to the exercise of the Warrants. We have not verified any of the foregoing assumptions.

The opinion expressed in Section B hereof is based on the facts in existence and the laws in effect on the date hereof and is limited to (a) the federal laws of the United States of America and (b) the laws of the State of New York that, in either case and based on our experience, are applicable to transactions of the type contemplated by the Underwriting Agreement and the Warrants. Except as expressly set forth in this opinion letter, we are not opining on specialized laws that are not customarily covered in opinion letters of this kind, such as tax, insolvency, antitrust, pension, employee benefit, environmental, intellectual property, banking, consumer lending, insurance, labor,

health and safety, anti-money laundering, anti-terrorism, and state securities laws, or on the rules of any self-regulatory organization, securities exchange, contract market, clearing organization, or other platform, vehicle, or market for trading, processing, clearing, or reporting transactions. We are not opining on any other law of any other jurisdiction, including any foreign jurisdiction or any county, municipality, or other political subdivision or local governmental agency or authority.

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HUNTER TAUBMAN FISCHER & LI LLC

NEW YORK WASHINGTON, D.C. MIAMI

Based on the foregoing, and subject to the foregoing and the additional qualifications and other matters set forth below, it is our opinion that when the Registration Statement becomes effective under the Securities Act, when the offering is completed as contemplated by Underwriting Agreement and the Registration Statement, when the Warrants are duly executed and authenticated in accordance with the Underwriting Agreement, and when the Warrants are issued, delivered, and paid for, as contemplated by the Registration Statement and the Underwriting Agreement, such Warrants will constitute valid and binding obligations of the Company enforceable in accordance with their terms, except: (a) as such enforceability may be limited by bankruptcy, insolvency, orderly liquidation or resolution, fraudulent transfer and conveyance, preference, reorganization, receivership, conservatorship, moratorium, or similar laws affecting the rights and remedies of creditors generally, and by general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law), including, but not limited to, principles limiting the availability of specific performance and injunctive relief, and concepts of materiality, reasonableness, good faith, and fair dealing; (b) as enforceability of any indemnification or contribution provision may be equitable defenses and to the discretion of the court before which any proceeding therefor may be brought.

This opinion letter speaks only as of the date hereof, and we assume no obligation to update or supplement this opinion letter if any applicable laws change after the date of this opinion letter or if we become aware after the date of this opinion letter of any facts, whether existing before or arising after the date hereof, that might change the opinion expressed above.

This opinion letter is furnished in connection with the filing of the Registration Statement and may not be relied upon for any other purpose without our prior written consent in each instance. Further, no portion of this opinion letter may be quoted, circulated, or referred to in any other document for any other purpose without our prior written consent.

We hereby consent to the filing of this opinion letter as an exhibit to the Registration Statement and to the reference to this firm in the Registration Statement under the caption "Legal Matters." In giving our consent, we do not hereby 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 thereunder.

Yours truly,

/s/ Hunter Taubman Fischer & Li

HUNTER TAUBMAN FISCHER & LI LLC

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