

**SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**POST-EFFECTIVE AMENDMENT NO. 4 TO  
FORM S-1**

**REGISTRATION STATEMENT**

**UNDER  
THE SECURITIES ACT OF 1933**

**AELUMA, INC.**  
(Exact name of registrant as specified in its charter)

<b>Delaware</b> (State or other jurisdiction of incorporation or organization)	<b>3674</b> (Primary Standard Industrial Classification Code Number)	<b>85-2807351</b> (I.R.S. Employer Identification Number)
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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:*

Hunter Taubman Fischer & Li LLC  
950 Third Avenue, 19<sup>th</sup> Floor  
New York, New York 10022  
+ (212) 530-2206  
Louis Taubman, Esq.

**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 ☐  
Non-accelerated filer ☒

Accelerated filer ☐  
Smaller reporting company ☒  
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. ☐

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.

**The information in this prospectus is not complete and may be changed. Neither we nor the Selling Stockholders may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.**

**SUBJECT TO COMPLETION, DATED OCTOBER 6, 2025**

**AELUMA, INC.**

11,010,002 shares of Common Stock

This prospectus relates to the resale, from time to time, by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” of up to 11,010,002 shares of Common Stock of Aeluma, Inc., a Delaware corporation (the “Company”), \$0.0001 par value per share (the “Common Stock”). Our common stock is currently quoted on the Nasdaq Capital Market under the symbol “ALMU.” Accordingly, the selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices at the time of sale or at privately negotiated prices through the means described in this prospectus under the section titled, “Plan of Distribution.” As of October 2, 2025, the last reported sales price for our Common Stock as quoted on the Nasdaq Capital Market was \$16.85 per share. There is a limited public trading market for our Common Stock.

For the details about the selling stockholder, please see “Selling Stockholders.” The selling stockholders may sell the shares of our common stock offered by this prospectus from time to time through the means described in this prospectus under the section titled “Plan of Distribution.” Any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. The maximum amount of any compensation to be received by any FINRA member will not be greater than an amount that is considered fair and reasonable for the sale of any securities being registered. Each selling stockholder has informed us that it does not as of the date hereof have any agreement or understanding, directly or indirectly, with any person to distribute the common stock. The Selling Stockholders are subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

The shares are being registered to permit the selling stockholder, or its respective pledgees, donees, transferees or other successors-in-interest, to sell the shares from time to time in the public market. We do not know when or in what amount the selling stockholder may offer the securities for sale. The selling stockholder may sell some, all or none of the securities offered by this prospectus.

We will pay the expenses of registering these shares. We will not receive proceeds from the sale of our shares by the selling stockholder that are covered by this prospectus.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

You should read this prospectus, together with additional information described under the headings “Incorporation of Certain Information by Reference” and “Where You Can Find More Information”, carefully before you invest in any of our securities.

**Investing in our securities involves a high degree of risk. See “Risk Factors” starting on page 6 of this prospectus.**

**Neither the Securities and Exchange Commission nor any state 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 October 6, 2025

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### Explanatory Note

This Post-Effective Amendment No. 4 (this “Post-Effective Amendment No. 4”) to the Registration Statement on Form S-1 (File No. 333-259179), initially filed on August 30, 2021, as amended and declared effective on January 3, 2023 (collectively, the “Registration Statement”), is being filed to include information from the Company’s Annual Report on Form 10-K that was filed with the Securities Exchange Commission on September 9, 2025.

No additional securities are being registered under this Post-Effective Amendment No. 4. All applicable registration fees were previously paid.

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You should rely only on the information contained in this prospectus or in any free writing prospectus that we may specifically authorize to be delivered or made available to you. We have not authorized anyone to provide you with any information other than that contained in this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This

prospectus may only be used where it is legal to offer and sell our securities. 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. Our business, financial condition, results of operations and prospects may have changed since that date. We are not making an offer of these securities in any jurisdiction where the offer is not permitted.

Unless the context otherwise requires, the terms “Aeluma,” the “Company,” “we,” “us,” “our” and similar terms in this prospectus refer to Aeluma, Inc., and its subsidiary, and “this offering” refers to the offering contemplated in this prospectus.

## PROSPECTUS CONVENTIONS & DEFINITIONS

Except where the context otherwise requires and for purposes of this prospectus only:

“CMOS” refers to complementary metal oxide semiconductor, a widely used semiconductor transistor architecture;

“Common Stock” is the Common Stock of Aeluma, Inc., \$.0001 par value;

“InGaAs” refers to indium gallium arsenide, a compound semiconductor material commonly used for detectors and lasers;

“InP” is to indium phosphide, a compound semiconductor material and substrate for InGaAs and other related compound semiconductors;

“Lidar” refers to light detection and ranging, a remote sensing technique for measuring distance to an object and to generate 3D images;

“MOCVD” refers to metalorganic chemical vapor deposition;

“NIR” refers to near infrared;

“Optoelectronic” refers to electronic devices and systems that source, detect or control electromagnetic radiation (light);

“Silicon” refers to semiconductor material widely used for microelectronics;

“SPAD” refers to single photon avalanche diode, a photodetector capable of detecting low intensity signals;

The terms “we,” “us,” “our,” “the Company,” “our Company” or “Aeluma” refers to Aeluma, Inc., a Delaware corporation, and all of the Subsidiaries as defined herein unless the context specifies, after the merger that occurred on June 22, 2021, as further described below;

“Subsidiary” or “Subsidiaries,” refer to Aeluma Operating Co., sometimes referred to as “Biond”;

“SWIR” refers to shortwave infrared; and,

“VCSEL” refers to vertical cavity surface emitting laser, a laser utilized for communications and sensing applications.

All references to “U.S. dollars”, “dollars”, and “\$” are to the legal currency of the U.S.

## INDUSTRY AND MARKET DATA

This prospectus includes information with respect to market and industry conditions and market share from third-party sources or based upon estimates using such sources when available. We have not, directly or indirectly, sponsored or participated in the publication of any of such materials. We believe that such information and estimates are reasonable and reliable. We also assume the information extracted from publications of third-party sources has been accurately reproduced. We understand that the Company would be liable for the information included in this prospectus if any part of the information was incorrect, misleading or imprecise to a material extent.

## PROSPECTUS SUMMARY

*This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including our financial statements and the related notes and the information set forth under the headings “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in each case included elsewhere in this prospectus.*

### Company Overview

Aeluma develops novel optoelectronic devices for sensing and communications applications. Aeluma has pioneered a technique to manufacture devices using high performance compound semiconductor materials on large diameter substrates that are commonly used to manufacture mass market microelectronics. This enables cost effective manufacturing of high-performance photodetector array circuits for imaging applications in mobile devices as well as other technologies. This technology has the potential to enhance the performance and capability of camera image sensors, LiDAR (Light Detection and Ranging), AR/VR (augmented reality/virtual reality), AI (artificial intelligence), facial recognition, and other applications.

### Our Mission

Aeluma aims to disrupt the image sensors markets with proprietary sensors that seek to have higher performance and added capability. The sensors that are being developed by us are based on high performance nanomaterials and large diameter silicon wafer manufacturing that lends itself to larger volumes and low cost, both of which are important for mass market applications. Our technology may become enabling for applications including 3D imaging, LiDAR, AR/VR, industrial vision, defense and aerospace, and advanced camera.

### Corporate Structure

We were incorporated as Parc Investments, Inc. in the State of Delaware on August 21, 2020. Prior to the Merger (as defined below), we were a “shell company” (as defined in Rule 12b-2 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

On June 22, 2021, our board of directors and all of our pre-Merger stockholders approved a restated certificate of incorporation, which was effective upon its filing with the Secretary of State of the State of Delaware on June 22, 2021 and through which we changed our name to “Aeluma, Inc.” On June 22, 2021, our board of directors also adopted restated bylaws.

On June 22, 2021, Biond Photonics, Inc., a privately held California corporation (“Biond Photonics”) merged with and into our wholly-owned subsidiary, Aeluma Operating Co., a corporation formed in the State of Delaware on June 22, 2021 (“Acquisition Sub”). Pursuant to this transaction (the “Merger”), Acquisition Sub was the surviving corporation and remained our wholly owned subsidiary, and all of the outstanding stock of Biond Photonics was converted into shares of our common stock.

As a result of the Merger, we acquired the business of Biond Photonics and will continue the existing business operations of Biond Photonics as a public reporting company under the name Aeluma, Inc.

In accordance with “reverse merger” or “reverse acquisition” accounting treatment, our historical financial statements as of period ends, and for periods ended, prior to the Merger will be replaced with the historical financial statements of Biond Photonics prior to the Merger, in all future filings with the U.S. Securities and Exchange Commission (the “SEC”).

### ***Stock Symbol***

As of October 2, 2025, our common stock trades on the Nasdaq Capital Market, under the symbol ALMU.

### ***Recent Events***

On July 31, 2025, we filed a registration statement on Form S-3 with the SEC, using a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in the related prospectus in one of more offerings up to a total dollar amount of proceeds of \$100,000,000. The prospectus describes the general manner in which our securities may be offered by the prospectus. Each time we sell securities under the prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update, or change information contained in this prospectus or in documents incorporated by reference in this prospectus. The prospectus supplement that contains specific information about the terms of the securities being offered may also include a discussion of certain U.S. Federal income tax consequences and any risk factors or other special considerations applicable to those securities. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus or in documents incorporated by reference in this prospectus, you should rely on the information in the prospectus supplement. The “shelf” registration statement was originally filed on July 31, 2025, amended on August 6, 2025 and declared effective on August 8, 2025 (File No. 3330289135) (the “**Shelf S3**”).

On September 17, 2025, we entered into an underwriting agreement (the “Underwriting Agreement”) with Craig-Hallum Capital Group LLC, as the representative of the several underwriters named therein (the “Underwriters”), relating to the issuance and sale by the Company of 1,700,000 shares of the Company’s Common Stock in a public offering (the “CH Offering”). The public offering price in the CH Offering was \$13.00 per share of Common Stock. In connection with the Offering, the Company granted the Underwriters a 30-day option to purchase up to 255,000 additional shares of its Common Stock at the public offering price, less the underwriting discount, and on September 18, 2025, the Underwriters exercised such option to purchase an additional 255,000 shares of Common Stock. The Offering closed on September 19, 2025.

The net proceeds to the Company from the CH Offering were approximately \$23.4 million, after deducting underwriting discounts and commissions and after payment of estimated offering expenses of approximately \$200,000. The Company intends to use such proceeds, together with its existing cash and cash equivalents, for expansion of business development efforts including (i) advancing manufacturing processes for production; (ii) hiring new employees; and (iii) working capital and general business purposes.

### **Recent Government Contracts**

In April 2025, we received a contract with the U.S. Department of Energy to develop commercially viable, low-cost shortwave infrared (SWIR) photodetectors. The award will accelerate commercialization of Aeluma’s wafer-scale platform for high-sensitivity, energy-efficient photodetector sensors applicable across critical growth sectors.

In June 2025, we received a contract with the U.S. Navy that could accelerate development of high-speed photodetectors for government and commercial applications. The new contract is for up to \$1.3 million in funding, includes a major global interconnect manufacturer as a proposed subcontractor, and involves support from a top-tier government prime contractor.

In June 2025, we received a contract with the U.S. Navy that could accelerate development and commercialization for next-generation quantum computing and sensing systems. The new contract will support Aeluma’s low size, weight, and power imaging sensors for next-generation submarine systems.

### **Private Placements and Conversion of Notes**

On March 25, 2025, we determined that a Conversion Event had occurred pursuant to the terms of the Notes. As a result, all holders elected to convert their Notes at the applicable Ceiling Price of \$3.50 per share, resulting in the issuance of an aggregate of 898,573 shares of Common Stock in exchange for \$3.1 million in outstanding principal under the Notes. Following the conversion, we have no further obligations under the converted Notes. The shares issued upon conversion are subject to piggyback registration rights previously granted to the investors. See Public Offering of Common Stock in Note 3 – Convertible Notes

### **Public Offering of Common Stock**

On March 26, 2025, we entered into an Underwriting Agreement (“UA”) with Craig-Hallum Capital Group LLC in connection with a public offering of 2,285,714 shares of its common stock at a price of \$5.25 per share (the “Offering”). We also granted the Underwriter a 30-day option to purchase up to an additional 342,857 shares to cover over-allotments, which was exercised in full on March 27, 2025. The Offering closed on March 28, 2025.

The Offering was conducted pursuant to our registration statements on Form S-1 (File No. 333-285469), declared effective by the SEC on March 25, 2025, and on Form S-1MEF filed under Rule 462(b), effective March 26, 2025.

Under the terms of the UA, we provided a 7.0% underwriting discount per share and issued to the Underwriter warrants to purchase up to 5.0% of the total shares sold in the Offering (including the over-allotment shares), with an exercise price equal to 115% of the public offering price.

Total gross proceeds from the Offering, including the over-allotment option, were \$13.8 million. Net proceeds, after underwriting discounts and Offering expenses, were \$12.6 million. We intend to use the proceeds for business development, scaling manufacturing operations, and general corporate purposes.

In connection with the Offering, we, as well as our directors and officers, agreed to a 90-day lock-up period restricting sales or transfers of Company securities, subject to customary exceptions. The Underwriter has the discretion to release these restrictions at any time.

### **Our Strategy**

We will continue to develop our technology that includes novel materials and devices based on our core intellectual property. Our primary focus is to manufacture high-performance photodetector array circuits for image sensors and other optoelectronic devices. Initial efforts aim to penetrate the 3D imaging and sensing (mobile and consumer, defense, and aerospace, industrial, medical, auto), LiDAR (robotic vehicles, autonomous driving (AD), advanced driver assistance systems (ADAS), topography, wind, industrial), and communications (telecommunications, data center communication, artificial intelligence (AI) communications, and quantum processing and communications) markets.

### **Summary Risk Factors and Challenges**

We face substantial competition from a great many established and emerging technology companies that develop, distribute, or sell products similar to ours. Our current and potential competitors include large technology companies. Many of our current and potential competitors have substantially greater financial, technical, and human resources than we do and significantly more experience in the marketing, commercialization, discovery, development and regulatory approvals of products, which could place us at a significant competitive disadvantage or deny our marketing exclusivity rights. Typically, our competitors will most likely have more capital resources to support their products than we do. In addition, you should carefully consider the risks described under the “Risk Factors” section beginning on page 6 before investing in us.

The below is a summary of principal risks to our business and risks associated with this offering. It is only a summary. You should read the more detailed discussion of risks set forth below and elsewhere in this prospectus for a more complete discussion of the risks listed below and other risks.

- Risk associated with our profitability including, but not limited to:
  - We have never generated revenue and will continue to be unprofitable in the foreseeable future.
  - Our business, operations and plans and timelines could be adversely affected by the effects of health epidemics, including the COVID-19 pandemic.
- Risk associated with the development of our products, including but not limited to:
  - Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales.
  - We will rely on limited sources of wafer fabrication, packaged products fabrication and product testing, the loss of which could delay and limit our product shipments.

- Because we will depend on third-party manufacturers to build portions of our products, we will be susceptible to manufacturing delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales, income and customers.
- Rapid innovation and short product life cycles in the semiconductor industry can result in price erosion of older products, which may materially adversely affect our business and results of operations.
- Risks associated with intellectual property including but not limited to:
  - We may not be successful in obtaining or maintaining patent or other relating rights necessary to the development of our products;
  - The intellectual property rights underlying our exclusive licensing rights may expire or be terminated due to lack of maintenance;
- Risks associated with competition and manufacturing including, but not limited to:
  - We face competition from entities that have developed or are developing products similar to ours; and
  - The semiconductor industry is highly competitive, and our inability to compete effectively could materially adversely affect our business and results of operations.
- Risks associated with government regulations including without limitation:
  - If we do not obtain the necessary governmental approvals, the import and export of our products outside the U.S. may be negatively impacted; and
  - Special authorizations, permits, licenses may be required for our operations, which if delayed or denied could materially adversely affect our results of operations and financial condition.
- Risk associated with our Common Stock including without limitation:
  - The market prices and trading volumes of the Common may be volatile and may be affected by economic conditions beyond our control; and,
  - Shares of our Common Stock are sporadically and thinly traded.

These and other risks described in this prospectus could materially and adversely impact our business, financial condition, operating results and cash flow, which could

cause the trading price of our Common Stock to decline and could result in a loss of your investment. In addition, you should carefully consider the risks described under “Risk Factors” beginning on page 6.

### Corporate Information

Our principal executive office is located at 27 Castilian Dr., Goleta, CA 93117. Our telephone number at our principal executive office is (805)-351-2707. Our corporate website is [www.aeluma.com](http://www.aeluma.com). The information on our corporate website is not part of, and is not incorporated by reference into, this prospectus.

### THE OFFERING

Common Stock being offered by Selling Stockholders

Up to 11,010,002, including:

- (i) 4,000,000 shares of our common stock issued in the Offering;
- (ii) 50,000 shares issued to the Placement agent and up to 360,000 shares of common stock issuable upon exercise of the Placement Agent Warrants;
- (iii) 4,100,002 shares of our common stock issued as a result of the conversion of Biond shares into shares of the Company’s common stock that occurred in connection with the Merger; and,
- (iv) 2,500,000 shares of our common stock held by our stockholders prior to the Merger.

Our common stock is currently quoted on the Nasdaq Capital Market under the symbol “ALMU”. The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices through the means described in this prospectus under the section titled “Plan of Distribution.” We will not receive any proceeds from the sales by the Selling Stockholders.

Use of Proceeds

We will not receive any proceeds from the sale of common stock by the selling shareholders. We will, however, receive the proceeds of any Placement Agent Warrants exercised for cash in the future. Such gross proceeds will be up to \$720,000 if all such warrants are exercised. See “Use of Proceeds” in this prospectus.

Risk Factors

The securities offered by this prospectus are speculative and involve a high degree of risk and investors purchasing securities should not purchase the securities unless they can afford the loss of their entire investment. You should read “Risk Factors,” beginning on page 6 for a discussion of factors to consider before deciding to invest in our securities.

Transfer Agent

VStock Transfer, LLC, 18 Lafayette Place, Woodmere, New York 11598, (212) 828-8436.

### RISK FACTORS

*Investing in our securities includes a high degree of risk. Prior to making a decision about investing in our securities, you should consider carefully the specific factors discussed below, together with all of the other information contained in this prospectus. If any of the following risks actually occurs, our business, financial condition, results of operations and future prospects would likely be materially and adversely affected. This could cause the market price of our Common Stock to decline and could cause you to lose all or part of your investment.*

#### Risks Relating to Our Business, Growth Prospects and Operating Results

***We are recently formed and only in the early development stages. Although we have generated some revenue, we are not in volume production for any of our product offerings. Our lack of operating history makes it difficult to evaluate our business and prospects, and may increase the risks associated with an investment in our Common Stock.***

Biond Photonics, now Aeluma, was formed in 2019. Although the Company has generated some revenue, the Company is subject to the risks involved with any speculative early-stage enterprise. There is no assurance that the Company will successfully offer, market, and distribute its products or services. The Company may experience continuing net losses and negative cash flows from operations. The extent of continuing losses and negative cash flows from operations and the time required to reach profitability are highly uncertain. There is no assurance that the Company will be able to achieve profitability or that profitability, if achieved, can be sustained on an ongoing basis. There is no assurance that actual cash requirements will not exceed our estimates. Such risks for the Company include, but are not limited to:

- an evolving, unpredictable and unproven business model;
- an intensely competitive developing market;
- rapidly changing technology;
- managing development and growth;
- dependence on key personnel;
- dependence on outsourced resources, materials and equipment;

- limited operating capital and limited access to credit; and
- other unforeseen changes and developments in operations, the product and markets.

In order to address these risks, the Company must, among other things:

- implement and successfully execute its business strategy;
- provide superior customer service;
- respond to competitive developments;
- attract, retain and motivate qualified personnel; and
- respond to unforeseen and changing circumstances.

The Company cannot make an assurance that it will succeed in addressing these risks.

***Our failure to raise additional capital or generate cash flows necessary to expand our operations and invest in new enterprises in the future could reduce our ability to compete successfully and harm our results of operations.***

Historically, we have funded our operations and capital expenditures primarily through equity issuances and cash generated from our operations. Although we currently anticipate that our existing cash and cash equivalents and cash flow from operations will be sufficient to meet our cash needs for the foreseeable future, our business may not always generate sufficient cash flow from operations to fund our activities and we may require additional financing, which we may not be able to obtain on favorable terms. If we raise equity financing to fund operations or on an opportunistic basis, our stockholders may experience significant dilution of their ownership interests. If we engage in debt financing, we may be required to accept terms that restrict our ability to incur additional indebtedness, force us to maintain specified liquidity or other ratios or restrict our ability to pay dividends or make acquisitions. Additionally, if we need such financing and it is not available to us, or is not available to us on satisfactory terms, our ability to operate and expand our business or to respond to competitive pressures would be limited and we could be required to delay, significantly curtail, or eliminate planned operations or other elements of our growth strategy. To reduce this risk, we filed the Shelf S3, which allows us to sell any combination of the securities described in the registration statement in one or more offerings up to a total dollar amount of proceeds of \$100,000,000; however, there is no guarantee that we will sell any shares pursuant to the Shelf S3.

***We may not be able to successfully implement our growth strategy on a timely basis or at all. Our future growth, profitability and cash flows depend upon our ability to successfully implement our growth strategy, which, in turn, is dependent upon a number of factors, including our ability to:***

- expand our eco-system of partners for our technology and products;
- acquire new customers;
- scale our business model, including scaling our technology for commercial deployment;
- ensure a consistent and timely supply chain;
- expand our presence within verticals;
- continue to innovate our product offerings; and
- selectively pursue strategic and value-enhancing acquisitions.

There can be no assurance that we can successfully achieve any or all of the above initiatives in the manner or time period that we expect. Further, achieving these objectives will require investments that may result in short-term costs without generating any current revenue and therefore may be dilutive to our earnings. We cannot provide any assurance that we will realize, in full or in part, the anticipated benefits we expect our strategy will achieve. The failure to realize those benefits could have a material adverse effect on our business, financial condition and results of operations.

***The timelines of adoption for our technologies might be longer than we anticipate.***

As a semiconductor company, we develop technologies and components that our customers incorporate into their end-products and systems, which may require development effort that may involve development risk for our customers; these products would then be subject to market adoption and selling lead-times. In some cases, there may be one or more additional intermediate participants in the supply chain. Collectively, the sequential nature of development and adoption of our products may take longer than expected and could potentially delay revenue growth and adversely impact our business.

***Changes to regulatory agencies could pose risks related to our business operations and financial outlook.***

On January 20, 2025, President Donald J. Trump issued Executive Order No. 14158 entitled “Establishing and Implementing the President’s “Department of Government Efficiency” or “DOGE”, which is tasked with making changes to eliminate regulations, cut expenditures, and restructure federal agencies, some of which could impact public companies and companies in our industry. Through DOGE or similar recently issued Executive Orders and initiatives, it is possible the Trump administration could institute significant changes to certain regulatory agencies. These changes could result in a significant reduction in staff and/or federal funding, which may cause backlogs or other interruptions to regulatory reviews and approvals causing a delay to our operations and/or special projects. As such, these changes to regulatory agencies could negatively impact our business operations and financial outlook.

***Compliance with federal securities laws, rules, and regulations, as well as Nasdaq requirements, has become increasingly complex, and the significant attention and expense we must devote to those areas may have an adverse impact on our business.***

Federal securities laws, rules, and regulations, as well as Nasdaq rules and regulations, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members, and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers, and directors for securities law violations. These laws, rules and regulations have increased, and in the future are expected to continue to increase, the scope, complexity, and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations.

***We generate a substantial portion of our revenue from contracts with U.S. federal government agencies, which are subject to a number of challenges and risks that may adversely impact our business, prospects, financial condition, and operating results.***

Contracts with U.S. federal governmental agencies, or prime contractors of these agencies, have in the past accounted for, and may in the future account for, a substantial portion of our revenue. Contracts with government entities or prime contractors are subject to the following risks:

- selling to and contracting with governmental agencies can be highly competitive, expensive, and time consuming, often requiring significant upfront time and expense without any assurance that such efforts will generate sales or revenue. Our existing contracts typically expire after some period of time and must be "re-competed." There is no guarantee that we will win such re-compete efforts;
- government certification requirements applicable to our products and services may change, and in doing so, may restrict our ability to sell into the U.S. federal government sector until we have attained the revised certification;
- government demand and payment for our products and services may be impacted by public sector budgetary cycles and funding authorizations, with funding reductions or delays adversely affecting public sector demand for our products and services;
- governments can generally terminate our contracts "for convenience", meaning we could lose part or all of our revenue on short notice. The potential impact of the DOGE on government spending may adversely impact our business and may lead to an increase in the frequency of events of terminating contracts for convenience;
- governments routinely investigate and audit government contractors' administrative processes, and any unfavorable audit could result in the government refusing to continue buying our products or services, which would adversely impact our revenue and results of operations, or institute fines or civil or criminal liability if the audit uncovers improper or illegal activities; and
- when we are a subcontractor, we have less control over the execution and success of the contract with the government.

If we were suspended or debarred from contracting with the U.S. government, if our reputation or relationship with government agencies was impaired, or if the government otherwise ceased doing business with us or significantly decreased the amount of business it does with us, our business, prospects, financial condition, and operating results would be materially and adversely affected.

***We rely on our management team and other key employees and will need additional personnel to grow our business. The loss of one or more key employees or our inability to attract and retain qualified personnel could harm our business.***

Our future success is substantially dependent on our ability to attract, retain and motivate the members of our management team and other key employees throughout our organization. The loss of one or more members of our management team or other key employees could materially impact our sales or our R&D programs and materially harm our business, financial condition, results of operations and prospects. We do not maintain key person life insurance policies on any of our management team members or key employees. Competition for highly skilled personnel is intense. We may not be successful in attracting or retaining qualified personnel to fulfill our current or future needs. For positions in our offices near Santa Barbara in particular, we may experience challenges hiring new and mid-level employees in part due to the high local housing costs. Our competitors may be successful in recruiting and hiring members of our management team or other key employees, and it may be difficult for us to find suitable replacements on a timely basis, on competitive terms, or at all.

***If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operations could fall below the expectations of investors, resulting in a decline in the market price of our common stock.***

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the amounts reported in our financial statements. Significant assumptions and estimates used in preparing our financial statements include those related to assets, liabilities, revenue, expenses, and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue, and expenses that are not readily apparent from other sources. Our results of operations may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our results of operations to fall below the expectations of investors, resulting in a decline in the market price of our common stock.

***Changes in accounting rules and regulations, or interpretations thereof, could result in unfavorable accounting charges or require us to change our compensation policies.***

Accounting methods and policies for companies such as ours, including policies governing revenue recognition, leases, R&D, and related expenses, and accounting for stock-based compensation, are subject to review, interpretation and guidance from our auditors and relevant accounting authorities, including the SEC. Changes to accounting methods or policies, or interpretations thereof, may require us to reclassify, restate or otherwise change or revise our historical financial statements, including those contained in this prospectus.

***Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.***

We do not expect to become profitable in the near future and may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change net operating loss carryforwards ("NOLs"), and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. The merger, our prior equity offerings and other changes in our stock ownership may have resulted in ownership changes. In addition, we may experience ownership changes in the future as a result of subsequent shifts in our stock ownership, some of which are outside of our control. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.



***We will depend on a limited number of customers and the loss of one or more of these customers could have a material adverse effect on our business, financial condition, and results of operations.***

Currently, Aeluma has customer engagements that involve R&D, development of wafers and delivery of engineering samples for evaluation. There is no assurance that any of these potential customers will purchase our product after they complete their analysis. Since we cannot predict how many of these evaluations will turn into sales, if any, we cannot guarantee that we will generate sufficient revenue to be profitable.

In addition, we cannot assure that any of our future customers will not cease purchasing products from us in favor of products produced by other suppliers, significantly reduce orders or seek price reductions in the future, and any such event could have a material adverse effect on our revenue, profitability, and results of operations.

Furthermore, if a significant portion of our revenue is derived from customers in certain industries, a downturn, or lower sales to customers in such industries could materially adversely affect our business and results of operations. If we cannot successfully market our products, we will not receive any revenue.

Due to the concentration and ongoing consolidation within the semiconductor industry, we may also find that over the longer term, our revenues are dependent on relatively few customers. If we lose any of these customers, or these customers do not pay us, our revenues could be materially adversely affected.

***Customer concentration could potentially result in volatility of revenues and stock prices.***

While we are targeting a broad and diverse customer base of both private and public customers as well as U.S. government agencies across multiple high-volume mass market opportunities, our initial phases of volume production may be limited in diversity of customers. As a result, revenues during these phases may be volatile. Such revenue volatility may potentially result in higher-than-average volatility in the price of our Common Stock.

***Some of our business may be dependent on a royalty-based business model, which is inherently risky.***

The long-term success of our business model may be dependent on future royalties paid to us by licensee-customers. We will depend on our ability to structure, negotiate and enforce agreements for the determination and payment of royalties, as well as upon our licensees' compliance with their agreements. We face risks inherent in a royalty-based model, many of which are outside our control, such as the following:

- the rate of adoption and incorporation of our technology by semiconductor designers and manufacturers and the manufacturers of semiconductor fabrication equipment;
- the length of the design cycle and the ability to successfully integrate our technology into manufacturing processes;
- the demand for products incorporating semiconductors that use our licensed technology;
- the cyclicity of supply and demand for products using our licensed technology;
- the impact of economic downturns; and
- the timing of receipt of royalty reports may not meet our revenue recognition criteria resulting in fluctuation in our results of operations;

***Uncertainties regarding the timing and amount of customer orders could lead to excess inventory and write-downs of inventory that could materially adversely affect our financial condition and results of operations.***

We expect that our sales will be typically made pursuant to individual purchase orders or customer agreements, and we do not expect to have long-term supply arrangements with our customers requiring a commitment to purchase. We expect that the agreements with our customers may allow them to cancel orders prior to shipment for standard products and, generally prior to start of production for custom products without incurring a penalty. We anticipate to routinely generate inventory based on customers' estimates of end-user demand for their products, which is difficult to predict. In times of under supply for certain products, some customers could respond by inflating their demand signals. As markets level off and supply capacity begins to match actual market demands, we could experience an increased risk of inventory write-downs, which may materially adversely affect our results of operations and our financial condition. In addition, our customers may change their inventory practices on short notice for any reason. Furthermore, short customer lead times are standard in the industry due to overcapacity. The cancellation or deferral of product orders, the return of previously sold products, or overproduction of products due to the failure of anticipated orders to materialize could result in excess obsolete inventory, which could result in write-downs of inventory or the incurrence of significant cancellation penalties under our arrangements with our raw materials and equipment suppliers. Unsold inventory, canceled orders and cancellation penalties may materially adversely affect our results of operations, and inventory write-downs, which may materially adversely affect our financial condition.

***Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales.***

Prior to purchasing our products, our customers may require that our products undergo an extensive qualification process, which involves testing of the products in the customer's system, as well as rigorous reliability testing. This qualification process may continue for a few months or longer, and we cannot guarantee that products will pass the required tests. However, qualification of a product by a customer does not ensure any sales of the product to that customer. Even after successful qualification and sales of a product to a customer, a subsequent revision to the product or software, changes in the product's manufacturing process or the selection of a new supplier by us may require a new qualification process, which may result in delays and in us holding excess or obsolete inventory. After our products are qualified, additional time may be required before the customer commences volume production of components or devices that incorporate our products. Despite these uncertainties, we will devote substantial resources, including design, engineering, sales, marketing, and management efforts, toward qualifying our products with customers in anticipation of sales. If we are unsuccessful or delayed in qualifying any of our products with a customer, such failure or delay would preclude or delay sales of such product to the customer, which may impede our growth and cause our business to suffer.

***Our business operations could suffer in the event of information technology systems' failures or security breaches.***

While we believe that we have implemented adequate security measures within our internal information technology and networking systems, our information technology systems may be subject to security breaches, damages from computer viruses, natural disasters, terrorism, and telecommunication failures. Any system failure or security

breach could cause interruptions in our operations in addition to the possibility of losing proprietary information and trade secrets. To the extent that any disruption or security breach results in inappropriate disclosure of our confidential information, our competitive position may be adversely affected, and we may incur liability or additional costs to remedy the damages caused by these disruptions or security breaches.

***If we fail to protect and enforce our intellectual property rights and our confidential information, our business will suffer.***

We rely primarily on a combination of nondisclosure agreements and other contractual provisions, and patent, trade secret and copyright laws to protect our technology and intellectual property. If we fail to protect our technology and intellectual property, our customers, licensees, and others may seek to use our technology and intellectual property without the payment of license fees and royalties, which could weaken our competitive position, reduce our operating results and increase the likelihood of costly litigation. The growth of our business depends in large part on our ability to secure intellectual property rights in a timely manner, our ability to convince third parties of the applicability of our intellectual property rights, and our ability to enforce our intellectual property rights. In certain instances, we attempt to obtain patent protection for portions of our technology, and our agreements may include both issued patents and pending patent applications. If we fail to obtain patents in a timely manner or if the patents issued to us do not cover all of the inventions disclosed in our patent applications, others could use portions of our technology and intellectual property without the payment of license fees and royalties.

We also rely on trade secret laws rather than patent laws to protect other portions of our proprietary technology. However, trade secrets can be difficult to protect. The misappropriation of our trade secrets or other proprietary information could seriously harm our business. We protect our proprietary technology and processes, in part, through confidentiality agreements with our employees, consultants, suppliers and customers. We cannot be certain that these contracts have not been and will not be breached, that we will be able to timely detect unauthorized use or transfer of our technology and intellectual property, that we will have adequate remedies for any breach, or that our trade secrets will not otherwise become known or be independently discovered by competitors. If we fail to use these mechanisms to protect our technology and intellectual property, or if a court fails to enforce our intellectual property rights, our business will suffer. We cannot be certain that these protection mechanisms can be successfully asserted in the future or will not be invalidated or challenged.

Further, the laws and enforcement regimes of certain countries do not protect our technology and intellectual property to the same extent as do the laws and enforcement regimes of the U.S. In certain jurisdictions we may be unable to protect our technology and intellectual property adequately against unauthorized use, which could adversely affect our business.

***A court invalidation or limitation of our key patents could significantly harm our business.***

Our patent portfolio contains some patents that are particularly significant to our technology and other business prospects. If any of these key patents are invalidated, or if a court limits the scope of the claims in any of these key patents, the likelihood that companies will take licenses could be significantly reduced. The resulting loss in license fees and royalties could significantly harm our business. Moreover, our stock price may fluctuate based on developments in the course of ongoing litigation.

***We may be involved in material legal proceedings in the future to enforce or protect our intellectual property rights, which could harm our business.***

From time to time, we may identify products that we believe infringe our patents. In that event, we may initially seek to license the manufacturer of the infringing products; however, if the manufacturer is unwilling to enter into a license agreement, we may have to initiate litigation to enforce our patent rights against those products. Litigation stemming from disputes could harm our ability to gain new customers, who may postpone commitments to us pending the outcome of the litigation or who may, as a result of such litigation, choose not to procure or adopt our technologies. Such litigation may also harm our relationships with existing customers, who may, as a result of such litigation, cease making payments to us or challenge the validity and enforceability of our patents or the scope of our agreements.

In addition, the costs associated with legal proceedings are typically high, relatively unpredictable, and not completely within our control. These costs may be materially higher than expected, which could adversely affect our operating results and lead to volatility in the price of our common stock. Whether or not determined in our favor or ultimately settled, litigation diverts our managerial, technical, legal, and financial resources from our business operations. Furthermore, an adverse decision in any of these legal actions could result in a loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from others, limit the value of our technology or otherwise negatively impact our stock price or our business and consolidated financial position, results of operations and cash flows.

Even if we prevail in our legal actions, significant contingencies may exist to their settlement and final resolution, including the scope of the liability of each party, our ability to enforce judgments against the parties, the ability and willingness of the parties to make any payments owed or agreed upon and the dismissal of the legal action by the relevant court, none of which are completely within our control. Parties that may be obligated to pay us royalties could be insolvent or decide to alter their business activities or corporate structure, which could affect our ability to collect royalties from such parties.

***Our technologies may infringe on the intellectual property rights of others, which could lead to costly disputes or disruptions.***

The semiconductor industry is characterized by frequent allegations of intellectual property infringement. Any allegation of infringement could be time- consuming and expensive to defend or resolve, result in substantial diversion of management resources, cause suspension of operations or force us to enter into royalty, license, or other agreements rather than dispute the merits of such allegation. Furthermore, third parties making such claims may be able to obtain injunctive or other equitable relief that could block our ability to further develop or commercialize some or all of our technologies, and the ability of our customers to develop or commercialize their products incorporating our technologies, in the U.S. and abroad. If patent holders or other holders of intellectual property initiate legal proceedings, we may be forced into protracted and costly litigation. We may not be successful in defending such litigation and may not be able to procure any required royalty or license agreements on acceptable terms or at all.

***If the Company cannot effectively manage growth by implementing and improving its operational and financial systems, the Company's business, prospects, financial condition and results of operations could be materially adversely affected.***

In order to maximize the potential growth in the Company's market opportunities, the Company may have to expand rapidly and significantly. The impetus for expansion could place a significant strain on the management, operational and financial resources of the Company. In order to manage growth, the Company will be required to implement and continually improve its operational and financial systems, expand operations, attract and retain superior management and train, manage and expand its employee base. The Company can give no assurance that it will effectively manage its operations, that its system, procedures, or controls will adequately support operations or that management of the Company will successfully implement its business plan. If the Company cannot effectively manage growth, the Company's business, prospects, financial condition, and results of operations could be materially adversely affected.

***If our estimates related to expenditures are inaccurate, our business may fail.***

Our success is dependent in part upon the accuracy of our management's estimates of expenditures for the next twelve months and beyond. If such estimates are inaccurate, or we encounter unforeseen expenses and delays, we may not be able to carry out our business plan, which could result in the failure of our business.

***We may not obtain insurance coverage to adequately cover all significant risk exposures.***

We will be exposed to liabilities that are unique to the products and services we provide. There can be no assurance that we will acquire or maintain insurance for certain risks, that the amount of our insurance coverage will be adequate to cover all claims or liabilities, or that we will not be forced to bear substantial costs resulting from risks and uncertainties of business. It also may not be possible to obtain insurance to protect against all operational risks and liabilities. The failure to obtain adequate insurance coverage on terms favorable to us, or at all, could have a material adverse effect on our business, financial condition, and results of operations.

***Our insurance coverage strategy may not be adequate to protect us from all business risks.***

We may be subject, in the ordinary course of business, to losses resulting from product liability, accidents, acts of God and other claims against us, for which we may have inadequate insurance coverage. Our insurance policies may include significant deductibles or self-insured retentions, policy limitations and exclusions, and we cannot be certain that our insurance coverage will be sufficient to cover all future losses or claims against us. A loss that is uninsured or that exceeds applicable coverage limits may require us to pay substantial amounts, which may harm our financial condition and operating results.

***If product liability lawsuits are brought against us, we may incur substantial liabilities.***

We face a potential risk of product liability as a result of any of the products that we develop, manufacture and/or offer for sale. For example, we may be sued if any product we develop, manufacture and/or sell allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing, or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for products that we may offer for sale;
- injury to our reputation;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients; and
- product recalls, withdrawals or labeling, marketing, or promotional restrictions.

We currently do not maintain any product liability insurance. We may obtain insurance when we commence commercial operations. However, there is no guarantee that we will be able to obtain product liability insurance or that such insurance will be affordable or sufficient. If we are unable to obtain or retain sufficient product liability insurance coverage, it could prevent or inhibit the commercialization of products we develop. Even if we obtain product liability insurance in the future, we may have to pay amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

***Warranty claims, product liability claims and product recalls could harm our business, results of operations and financial condition.***

Manufacturing semiconductors is a highly complex and precise process, requiring production in a tightly controlled, clean environment. Minute impurities in our manufacturing materials, contaminants in the manufacturing environment, manufacturing equipment failures, and other defects can cause our products to be non-compliant with customer requirements or otherwise nonfunctional. We face an inherent business risk of exposure to warranty and product liability claims in the event that our products fail to perform as expected or such failure of our products results, is alleged to result in bodily injury or property damage (or both). In addition, if any of our designed products are or are alleged to be defective, we may be required to participate in their recall. A successful warranty or product liability claim against us in excess of our available insurance coverage, if any, and established reserves, or a requirement that we participate in a product recall, could have material adverse effects on our business, results of operations and financial condition. Additionally, in the event that our products fail to perform as expected or such failure of our products results in a recall, our reputation may be damaged, which could make it more difficult for us to sell our products to existing and prospective customers and could materially adversely affect our business, results of operations and financial condition.

Since a defect or failure in our product could give rise to failures in the goods that incorporate them (and claims for consequential damages against our customers from their customers), we may face claims for damages that are disproportionate to the revenue and profits we receive from the products involved. We plan to attempt to limit our liability through our standard terms and conditions of sale and other customer contracts in certain instances; however, there is no assurance that such limitations will be effective. To the extent that we are liable for damages in excess of the revenue and profits we received from the products involved, our results of operations and financial condition could be materially adversely affected.

***We may be subject to litigation from time to time during the normal course of business, which may adversely affect our business, financial condition, and results of operations.***

From time to time in the normal course of business or otherwise, we may become subject to litigation that may result in liability material to our financial statements as a whole or may negatively affect our operating results if changes to business operations are required. The cost to defend such litigation may be significant and may require a diversion of our resources. There also may be adverse publicity associated with litigation that could negatively affect customer perception of our products and business, regardless of whether the allegations are valid or whether we are ultimately found liable. As a result, litigation may adversely affect our business, financial condition, and results of operations.

***Natural disasters and other business disruptions could cause significant harm to our business operations and facilities and could adversely affect our supply chain and our customer base, any of which may materially adversely affect our business, results of operation, and financial condition.***

We expect that our manufacturing and other facilities, as well as the operations of our third-party suppliers, are susceptible to losses and interruptions caused by floods, fires, hurricanes, earthquakes, typhoons, and similar natural disasters, as well as power outages, telecommunications failures, industrial accidents, pandemics, and similar events. The occurrence of natural disasters in any of the regions in which we or our suppliers will operate could severely disrupt the operations of our businesses by negatively impacting our supply chain, our ability to deliver products, and the cost of our products. Such events can negatively impact revenue and earnings and can significantly impact cash flow, both from decreased revenue and from increased costs associated with the event. In addition, these events could cause consumer confidence and spending to

decrease. We may carry insurance to generally compensate for losses of the type noted above, however, even if we obtain such insurance, it may not be adequate to cover all losses that may be incurred or continue to be available in the affected area at commercially reasonable rates and terms. To the extent any losses from natural disasters or other business disruptions are not covered by insurance, any costs, write-downs, impairments and decreased revenue can materially adversely affect our business, our results of operations and our financial condition.

***There is no assurance on the future successful completion of strategic transactions by us to successfully implement our business strategies.***

Our ability to complete future strategic transactions could be important to the successful implementation of our business strategies, including our strategies to strengthen our geographic diversity and broaden its customer base. Successful completion of a strategic manufacturing partnership agreement or other similar transaction depends on a number of factors that are not entirely within our control, including our ability to negotiate acceptable terms, conclude satisfactory agreements and obtain all necessary regulatory approvals. In seeking to partner with another company, we may require capital investment, funding for operations, or dedicated personnel with special skills. If we need to finance this activity, we may not be able to obtain the necessary financing on satisfactory terms and within the timeframe that would permit the transaction to proceed. If any of these factors prevent us from completing one or more strategic transactions, we may not be able to expand our business in the manner and on the schedule that we plan. In addition, we may incur significant costs arising from our efforts to engage in strategic transactions. These costs may exceed the returns that we realize from a given transaction. Moreover, these expenditures may not result in the successful completion of a transaction.

Even if we complete one or more strategic partnership agreements, we may be unable to work effectively with the partner company which may impact our ability to reach the goals of the partnership. Further, such a partnership could disrupt ongoing business, distract management and employees, or lead to increased expenses.

***Our business could be adversely affected by natural disasters, public health crises, political crises, economic downturns or other unexpected events.***

A significant natural disaster, such as an earthquake, fire, hurricane, tornado, flood, or significant power outage, could disrupt our operations, mobile networks, the internet or the operations of our third-party technology providers. In addition, any further outbreaks of COVID-19 or other unforeseen public health crises, or political crises, such as terrorist attacks, war and other political instability, or other catastrophic events, whether in mainland China or abroad, could adversely affect our operations or the economies of the markets where we operate. The COVID-19 pandemic adversely affected the semiconductor industry between 2020 and 2021, and we cannot assure you that new outbreaks, particularly with new variants, will not occur. Any such occurrences could cause severe disruption to our daily operations. Any natural disaster, act of terrorism or other disruption to us or our business partners' abilities could result in decreased demand for our product and service offerings or a delay in the provision of our offerings, which could adversely affect our business, financial condition, and results of operations. All of the aforementioned risks may be further increased if our disaster recovery plans prove to be inadequate. Disruptions or downturns in global or national or local economic conditions may cause demand for our products and services to decline. An economic downturn resulting in a prolonged recessionary period would have a material adverse effect on our business, financial condition, and operating results.

***Our current operations are concentrated in one location and in the event of an earthquake, terrorist attack or other disaster affecting this location or those of our major suppliers, our operations may be interrupted, and our business may be harmed.***

Our principal executive offices and operating facilities are situated near Santa Barbara, California, and many of our major suppliers, vendors, and manufacturing partners are located in areas that have been subject to severe earthquakes and are susceptible to other disasters such as tropical storms, fires, typhoons or tsunamis. In the event of a disaster, we or one or more of our major suppliers, vendors, or manufacturing partners may be temporarily unable to continue operations and may suffer significant property damage. Any interruption in our ability, or that of our major suppliers, to continue operations could delay the development and shipment of our products and have a substantial negative impact on our financial results. As part of our risk management policy, we maintain insurance coverage at levels that we believe are appropriate for our business. However, in the event of an accident or incident at these facilities, we cannot assure you that the amounts or coverage of insurance will be sufficient to satisfy any damages and losses.

***Our officers and directors allocate their time to other businesses thereby causing conflicts of interest in their determination as to how much time to devote to our affairs. This conflict of interest could have a negative impact on our ability to carry out all of our operations and goals.***

Our officers and directors are not required to, and will not, commit their full time to our affairs, which may result in a conflict of interest in allocating their time between our operations and their other occupations. Our officers may be engaged in other business endeavors for which they may be entitled to substantial compensation and our officers are not obligated to contribute any specific number of hours per week to our affairs. Our directors also serve or may serve as officers or board members for other entities. If our officers' or directors' other business affairs require them to devote substantial amounts of time to such affairs in excess of their current commitment levels, it could limit their ability to devote time to our affairs, which may have a negative impact on our ability to carry out our operations and goals. For a complete discussion of our officers' and directors' other business affairs, please see the section of this prospectus entitled "Management."

## **Risks Relating to the Semiconductor Industry**

***We will rely on limited sources of wafer fabrication, packaged products fabrication and product testing, the loss of which could delay and limit our product shipments.***

We expect to subcontract wafer fabrication services to third-party suppliers. These suppliers also offer such services to other companies, which may lead to us not having access to adequate capacity for our needs and our customers' needs. We may have less control over delivery schedules and overall support versus other customers and users of those facilities. If the wafer foundries we use are unable or unwilling to manufacture our products in our required volumes, or at specified times, we may have to identify and qualify acceptable additional or alternative foundries. This qualification process could require significant time and capital, and we may not find sufficient capacity in a timely manner or at an acceptable cost to satisfy our production requirements.

Some companies that supply products to our customers are similarly dependent on a limited number of suppliers. These other companies' products may represent important components of camera systems or sensor assemblies and other products into which our products are designed. If these companies are unable to produce the volumes demanded by our customers, our customers may be forced to slow down or halt production on the equipment for which our products are designed, which could materially impact our order levels.

***Because we will depend on third-party manufacturers to build portions of our products, we will be susceptible to manufacturing delays and pricing fluctuations that could prevent us from shipping customer orders on time, if at all, or on a cost-effective basis, which may result in the loss of sales, income, and customers.***

We will depend on third-party manufacturers to build several stages of our products. Our reliance on these third-party manufacturers reduces our control over the manufacturing process and exposes us to risks, including reduced control over quality assurance, product costs, and product supply and timing. Any manufacturing disruption by these third-party manufacturers could severely impair our ability to fulfill orders. Our reliance on third-party manufacturers also creates the potential for infringement or

misappropriation of our intellectual property. If we are unable to manage our relationships with third-party manufacturers effectively, or if our third-party manufacturers experience delays or disruptions for any reason, increased manufacturing lead-times, capacity constraints or quality control problems in their manufacturing operations, or if they otherwise fail to meet our future requirements for timely delivery, our ability to ship products to our customers would be severely impaired, and our business and results of operations would be seriously harmed.

***Downturns or volatility in general economic conditions could have a material adverse effect on our business and results of operations.***

In recent years, worldwide semiconductor industry sales have tracked the impact of the financial crisis, subsequent recovery, and persistent economic uncertainty. We believe that the state of economic conditions in the United States is particularly uncertain due to recent and expected shifts in legislative and regulatory conditions concerning, among other matters, international trade and taxation, and that an uneven recovery or a renewed global downturn may put pressure on our sales due to reductions in customer demand as well as customers deferring purchases. Volatile and/or uncertain economic conditions can adversely impact sales and profitability and make it difficult for us and our competitors to accurately forecast and plan our future business activities. To the extent we incorrectly plan for favorable economic conditions, including inflation and interest rate fluctuations, that do not materialize or take longer to materialize than expected, we may face oversupply of our products relative to customer demand. Reduced customer spending may in the future drive us and our competitors, to reduce product pricing, which will result in a negative effect on gross profit. Moreover, volatility in revenue as a result of unpredictable economic conditions may alter our anticipated working capital needs and interfere with our short-term and long-term strategies. To the extent that our sales, profitability, and strategies are negatively affected by downturns or volatility in general economic conditions, our business and results of operations may be materially adversely affected.

***The semiconductor industry is highly cyclical, and significant downturns or upturns in customer demand can materially adversely affect our business and results of operations.***

The semiconductor industry is highly cyclical and, as a result, is subject to significant downturns and upturns in customer demand for semiconductors and related products. We cannot accurately predict the timing of future downturns and upturns in the semiconductor industry or how severe and prolonged these conditions might be. Significant downturns often occur in connection with, or in anticipation of, maturing product cycles (for semiconductors and for the end-user products in which they are used) or declines in general economic conditions and can result in reduced product demand, production overcapacity, high inventory levels and accelerated erosion of average selling prices, any of which could materially adversely affect our operating results as a result of increased operating expenses outpacing decreased revenue, reduced margins, underutilization of our manufacturing capacity and/or asset impairment charges. On the other hand, significant upturns can cause us to be unable to satisfy demand in a timely and cost-efficient manner. In the event of such an upturn, we may not be able to expand our workforce and operations in a sufficiently timely manner, procure adequate resources and raw materials, or locate suitable third-party suppliers to respond effectively to changes in demand for our existing products or to the demand for new products requested by our customers, and our business and results of operations could be materially and adversely affected.

***Rapid innovation and short product life cycles in the semiconductor industry can result in price erosion of older products, which may materially adversely affect our business and results of operations.***

The semiconductor industry is characterized by rapid innovation and short product life cycles, which often results in price erosion, especially with respect to products containing older technology. Products are frequently replaced by more technologically advanced substitutes and, as demand for older technology falls, the price at which such products can be sold drops, in some cases precipitously. In addition, our and our competitors' excess inventory levels can accelerate general price erosion.

***Shortages or increased prices of raw materials could materially adversely affect our results of operations.***

Our manufacturing processes will rely on many raw materials. Generally, we expect that our agreements with suppliers of raw materials will impose no minimum or continuing supply obligations, and we will obtain our raw materials and supplies from a large number of sources on a just-in-time basis. From time to time, suppliers of raw materials may extend lead times, limit supplies or increase prices due to capacity constraints or other factors beyond our control. Shortages could occur in various essential raw materials due to interruption of supply or increased demand. If we are unable to obtain adequate supplies of raw materials in a timely manner, the costs of our raw materials increase significantly, their quality deteriorates or they give rise to compatibility or performance issues in our products, our results of operations could be materially adversely affected. Geopolitical conflicts might unfavorably impact the availability of rare earths or rare minerals such as indium, gallium, arsenic, etc., which are used in our manufacturing processes or in the manufacturing of other components in our customers' systems. If any country or entity decided to reduce or ration the volumes available to us, our supplier eco-system or our customers' supply-chains, our business could be materially adversely impacted.

***Changes in administration may lead to changes in import tariffs, which could impact the semiconductor industry that relies on imports of raw materials and other supplies or equipment.***

When a new administration takes power and changes import tariffs, key risk factors include increased costs for businesses due to higher tariffs, disruption to supply chains, uncertainty in the market leading to delayed investment decisions, potential retaliatory tariffs from other countries, price increases for consumers, and potential impacts on specific industries heavily reliant on imports; all of which can negatively affect profitability and economic stability. Impacts may include higher import costs, supply chain disruptions, market uncertainty, retaliatory tariffs, tariff changes, price increases, currency fluctuations, and legal challenges, all of which could adversely affect our ability to conduct business.

Moreover, the emergence of a trade war between major trading nations could have broader economic repercussions, potentially affecting consumer spending, market stability, and overall demand in the semiconductor sector. As our operations may rely on goods or services affected by international trade dynamics, any unfavorable changes in trade relations could pose significant risks to our profitability and strategic growth.

***Our facilities and processes may be interdependent and an operational disruption at any particular facility could have a material adverse effect on our ability to produce our products, which would materially adversely affect our business and results of operations.***

We may utilize an integrated manufacturing platform in which multiple facilities may each produce one or more components necessary for the assembly of a single product. If we do, an operational disruption at a facility toward the front-end of our manufacturing process may have a disproportionate impact on our ability to produce our products. For example, if our multiple facilities rely predominantly on one third-party for manufacturing at the front-end of its manufacturing process, in the event of any operational disruption, natural or man-made disaster or other extraordinary event at such third-party facility, we may be unable to effectively source replacement components on acceptable terms from qualified third parties, in which case our ability to produce our products could be materially disrupted or delayed.

Conversely, if our facilities are single-source facilities that only produce one of our end-products, a disruption at any such facility would materially delay or cease production of the related product. In the event of any such operational disruption, we may experience difficulty in beginning production of replacement components or products at new

facilities (for example, due to construction delays) or transferring production to other existing facilities (for example, due to capacity constraints or difficulty in transitioning to new manufacturing processes), any of which could result in a loss of future revenues and materially adversely affect our business and results of operations.

***We may be unable to maintain manufacturing efficiency, which could have a material adverse effect on our results of operations.***

We believe that our success will materially depend on our ability to maintain or improve our margin levels related to manufacturing. Semiconductor manufacturing requires advanced equipment and significant capital investment, leading to high fixed costs, which include depreciation expenses. Manufacturing semiconductor components also involves highly complex processes that we and our competitors are continuously modifying to improve yields and product performance. In addition, impurities, waste, or other difficulties in the manufacturing process can lower production yields. Our manufacturing efficiency will be an important factor in our future profitability, and we cannot assure you that we will be able to manufacture efficiently, increase manufacturing efficiency to the same extent as our competitors, or be successful in our manufacturing rationalization plans. If we are unable to utilize manufacturing and testing facilities at expected levels, or if production capacity increases while revenue does not, the fixed costs and other operating expenses associated with these facilities will not be fully absorbed, resulting in higher average unit costs and lower gross profits, which could have a material adverse effect on our results of operations.

***The failure to successfully implement cost reduction initiatives, including through restructuring activities, could materially adversely affect our business and results of operations.***

From time to time, we may implement cost reduction initiatives in response to significant downturns in our industry, including relocating manufacturing to lower cost regions, transitioning higher-cost external supply to internal manufacturing, working with our material suppliers to lower costs, implementing personnel reductions and voluntary retirement programs, reducing employee compensation, temporary shutdowns of facilities with mandatory vacation and aggressively streamlining our overhead.

We cannot assure you that any cost reduction initiatives will be successfully or timely implemented or that they will materially and positively impact profitability.

***If we are unable to identify and make the substantial R&D investments required to remain competitive in our business, our business, financial condition, and results of operations may be materially adversely affected.***

The semiconductor industry requires substantial investment in R&D in order to develop and bring to market new and enhanced technologies and products. The development of new products is a complex and time-consuming process and often requires significant capital investment and lead time for development and testing. We cannot assure you that we will have sufficient resources to maintain the level of investment in R&D that is required to remain competitive.

In addition, the lengthy development cycle for our products will limit our ability to adapt quickly to changes affecting the product markets and requirements of our customers and end-users. There can be no assurance that we will win competitive bid selection processes, known as “design wins,” for new products. In addition, design wins do not guarantee that we will make customer sales or that we will generate sufficient revenue to recover design and development investments, as expenditures for technology and product development are generally made before the commercial viability for such developments can be assured. There is no assurance that we will realize a return on the capital expended to develop new products, that a significant investment in new products will be profitable or that we will have margins as high as we anticipate at the time of investment or have experienced historically. To the extent that we underinvest in our R&D efforts, or that our investments and capital expenditures in R&D do not lead to sales of new products, we may be unable to bring to market technologies and products that are attractive to our customers, and as a result our business, financial condition and results of operations may be materially adversely affected.

***We may be unable to develop new products to satisfy changing customer demands or regulatory requirements, which may materially adversely affect our business and results of operations.***

The semiconductor industry is characterized by rapidly changing technologies, evolving regulatory and industry standards and certifications, changing customer needs and frequent new product introductions. Our success will be largely dependent on our ability to accurately predict, identify and adapt to changes affecting the requirements of our customers in a timely and cost-effective manner. Additionally, the emergence of new industry or regulatory standards and certification requirements may adversely affect the demand for our products. We plan to focus our new product development efforts on market segments and applications that we anticipate will experience growth, but there can be no assurance that we will be successful in identifying high-growth areas or develop products that meet industry standards or certification requirements in a timely manner. A fundamental shift in technologies, the regulatory climate or consumption patterns and preferences in our existing product markets or the product markets of our customers or end-users could make our current products obsolete, prevent or delay the introduction of new products that we planned to make or render our current or new products irrelevant to our customers’ needs. If our new product development efforts fail to align with the needs of our customers, including due to circumstances outside of our control like a fundamental shift in the product markets of our customers and end users or regulatory changes, our business and results of operations could be materially adversely affected.

***The semiconductor industry is highly competitive, and our inability to compete effectively could materially adversely affect our business and results of operations.***

The semiconductor industry is highly competitive, and our ability to compete successfully depends on elements both within and outside of our control. We will face significant competition from major global semiconductor companies as well as smaller companies focused on specific market niches. In addition, companies not currently in direct competition with us may introduce competing products in the future.

Our inability to compete effectively could materially adversely affect our business and results of operations. Products or technologies developed by competitors that are larger and have more substantial R&D budgets, or that are smaller and more targeted in their development efforts, may render our products or technologies obsolete or noncompetitive. We also may be unable to market and sell our products if they are not competitive on the basis of price, quality, technical performance, features, system compatibility, customized design, innovation, availability, delivery timing and reliability. If we fail to compete effectively on developing strategic relationships with customers and customer sales and technical support, our sales and revenue may be materially adversely affected. Competitive pressures may limit our ability to raise prices, and any inability to maintain revenue or raise prices to offset increases in costs could have a significant adverse effect on our gross margin. Reduced sales and lower gross margins would materially adversely affect our business and results of operations.

***The semiconductor industry has experienced rapid consolidation and our inability to compete with large competitors or failure to identify attractive opportunities to consolidate may materially adversely affect our business.***

The semiconductor industry is characterized by the high costs associated with developing marketable products and manufacturing technologies as well as high levels of investment in production capabilities. As a result, the semiconductor industry has experienced, and may continue to experience, significant consolidation among companies and vertical integration among customers. Larger competitors resulting from consolidations may have certain advantages over us, including, but not limited to: substantially greater financial and other resources with which to withstand adverse economic or market conditions and pursue development, engineering, manufacturing, marketing and distribution of their products; longer independent operating histories; presence in key markets; patent protection; and greater name recognition. In addition, we may be at a competitive disadvantage to our peers if we fail to identify attractive opportunities to acquire companies to expand our business. Consolidation among our competitors and integration among our customers could erode our market share, negatively impact our capacity to compete and require us to restructure our operations, any of which would have a material adverse effect on our business.

***We will be dependent on the services of third-party suppliers and contract manufacturers, and any disruption in or deterioration of the quality of the services delivered by such third parties could materially adversely affect our business and results of operations.***

We plan to use third-party contractors for certain of our manufacturing activities. Our agreements with these manufacturers may require us to commit to purchase services based on forecasted product needs, which may be inaccurate, and, in some cases, require longer-term commitments. We will also be dependent upon a limited number of highly specialized third-party suppliers for required components and materials for certain of our key technologies. Arranging for replacement manufacturers and suppliers can be time-consuming and costly, and the number of qualified alternative providers can be extremely limited. Our business operations, productivity and customer relations could be materially adversely affected if these contractual relationships were disrupted or terminated, the cost of such services increased significantly, the quality of the services provided deteriorated, or our forecasted needs proved to be materially incorrect.

***Sales through distributors and other third parties will expose us to risks that, if realized, could have a material adverse effect on our results of operations.***

We may sell a significant portion of our products through distributors. Distributors may sell products that compete with our products, and we may need to provide financial and other incentives to focus distributors on the sale of our products. We may rely on one or more key distributors for a product, and the loss of these distributors could reduce our revenue. Distributors may face financial difficulties, including bankruptcy, which could harm our collection of accounts receivable and financial results. Violations of the Foreign Corrupt Practices Act ("FCPA") or similar laws by distributors or other third-party intermediaries could have a material impact on our business. Failure to manage risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position, any of which could have a material adverse effect on our results of operations.

***Our potential future global operations may subject us to risks inherent in doing business on a global level that could adversely impact our business, financial condition, and results of operations.***

If our long-term expansion plans are realized, we anticipate that a certain amount of our total revenue may be derived from countries outside of the United States in the future, and we might maintain certain operations in these regions. In addition, we may rely on a number of contract manufacturers whose operations are primarily located outside of the United States. Risks inherent in doing business on a global level include, among others, the following:

- economic and geopolitical instability (including as a result of the threat or occurrence of armed international conflict or terrorist attacks);
- changes in regulatory requirements, international trade agreements, tariffs, customs, duties, and other trade barriers;
- licensing requirements for the import or export of certain products;
- exposure to different legal standards, customs, business practices, tariffs, duties, and other trade barriers, including changes with respect to price protection, competition practices, IP, anti-corruption and environmental compliance, trade and travel restrictions, pandemics, import and export license requirements and restrictions, and accounts receivable collections;
- transportation and other supply chain delays and disruptions;
- power supply shortages and shutdowns;
- difficulties in staffing and managing foreign operations, including collective bargaining agreements and workers councils, exposure to foreign labor laws and other employment and labor issues;

- currency fluctuations;
- currency convertibility and repatriation;
- taxation of our earnings and the earnings of our personnel;
- limitations on the repatriation of earnings and potential additional taxation of foreign profits in the U.S.;
- potential violations by our international employees or third-party agents of international or U.S. laws relevant to foreign operations (e.g., FCPA);
- difficulty in enforcing intellectual property rights;
- restrictions on our employee's ability to travel and potential changes in our ability to obtain temporary work visas or work permits; and
- other risks relating to the administration of or changes in, or new interpretations of, the laws, regulations, and policies of the jurisdictions in which we conduct our business.

We cannot assure you that we will be successful in overcoming the risks that relate to or arise from operating in international markets, the materialization of any of which could materially adversely affect our business, financial condition, and results of operations.

***Special authorizations, permits, licenses may be required for our operations, which if delayed or denied could materially adversely affect our results of operations and financial condition.***

The semiconductor industry commonly uses various hazardous materials in the manufacture of products. These materials may be incorporated in end products, be waste products of the manufacturing process, or be released accidentally. Such hazardous materials are regulated by state, local, and federal law, and applicable policies, regulations, or other requirements. Furthermore, the semiconductor industry commonly utilizes equipment that can increase the risk of fire, water damage, electric shock to personnel, in addition to other risks. Semiconductor operations generally require permits, licenses, and other authorizations from government agencies. Since we have not yet commenced any of these operations, no permits or other authorizations have been obtained. Any delay or denial of such authorizations could have a material adverse effect on our operations and financial condition.

***Environmental and health and safety liabilities and expenditures could materially adversely affect our results of operations and financial condition.***

Our future manufacturing operations may be subject to various environmental laws and regulations relating to the management, disposal and remediation of hazardous substances and the emission and discharge of pollutants into the air, water, and ground, and we may be identified as either a primary responsible party or a potentially responsible party at sites where we or our predecessors operated or disposed of waste in the past. Our operations may also be subject to laws and regulations relating to workplace safety and worker health, which, among other requirements, regulate employee exposure to various hazards including hazardous substances. We do not currently maintain environmental insurance to cover certain claims related to historical contamination and future releases of hazardous substances. Moreover, we cannot assure you that even if such insurance is purchased, that it will cover any or all of our material environmental costs. In addition, the nature of our future operations may expose us to the continuing risk of environmental and health and safety liabilities including:

- changes in U.S. state and federal, and international environmental or health and safety laws or regulations, including, but not limited to, future laws or regulations imposed in response to climate change concerns;
- the manner in which environmental or health and safety laws or regulations will be enforced, administered or interpreted;
- our ability to enforce and collect under indemnity agreements and insurance policies relating to environmental liabilities;
- the cost of compliance with future environmental or health and safety laws or regulations or the costs associated with any future environmental claims, including the cost of clean-up of currently unknown environmental conditions; or
- the cost of fines, penalties, or other legal liability, should we fail to comply with environmental or health and safety laws or regulations.

To the extent that we face unforeseen environmental or health and safety compliance costs or remediation expenses or liabilities that are not covered by insurance, we may bear the full effect of such costs, expenses, and liabilities, which could materially adversely affect our results of operations and financial condition.

***We may be subject to disruptions or breaches of our secured network that could irreparably damage our reputation and our business, expose us to liability and materially adversely affect our results of operations.***

We may routinely collect and store sensitive data, including IP and other proprietary information about our business and our customers, suppliers, and business partners. The secure processing, maintenance and transmission of this information will be critical to our operations and business strategy. We may be subject to disruptions or breaches of our secured network caused by computer viruses, illegal hacking, criminal fraud, or impersonation, acts of vandalism or terrorism or employee error. Our security measures and/or those of our third-party service providers and/or customers may not detect or prevent such security breaches. The costs to us to reduce the risk of or alleviate cyber security breaches and vulnerabilities could be significant, and our efforts to address these problems may not be successful and could result in interruptions and delays that may materially impede our sales, manufacturing, distribution, or other critical functions. Any such compromise of our information security could result in the misappropriation or unauthorized publication of our confidential business or proprietary information or that of other parties with which we do business, an interruption in our operations, the unauthorized transfer of cash or other of our assets, the unauthorized release of customer or employee data or a violation of privacy or other laws. In addition, computer programmers and hackers also may be able to develop and deploy viruses, worms and other malicious software programs that attack our systems, or that otherwise exploit any security vulnerabilities, and any such attack, if successful, could expose us to liability to customer claims. Any of the foregoing could irreparably damage our reputation and business, which could have a material adverse effect on our results of operations.

***The failure to comply with the terms and conditions of our contracts could result in, among other things, damages, fines, or other liabilities.***

We expect to have a diverse customer base consisting of both private sector clients and public sector clients, including the U.S. government. Sales to our private sector clients are generally expected to be based on stated contractual terms, the terms and conditions on our website or terms contained in purchase orders on a transaction-by-transaction basis. Sales to our public sector clients are generally expected to be derived from sales to federal, state, and local governmental departments and agencies through various contracts and programs, which may require compliance with regulations covering many areas of our operations, including, but not limited to, accounting practices, IP rights, information handling, and security. Noncompliance with contract terms, particularly with respect to highly regulated public sector clients, or with government procurement regulations could result in fines or penalties against us, termination of such contracts or civil, criminal, and administrative liability to the Company. With respect to public sector clients, the government's remedies may also include suspension or debarment from future government business. The effect of any of these possible actions or the adoption of new or modified procurement regulations or practices could materially adversely affect our business, financial position, and results of operations.

#### **Risks Relating to Intellectual Property**

***If we are unable to protect the intellectual property we use, our business, results of operations and financial condition could be materially adversely affected.***

We have filed several patent applications that are in various stages of progress. Some applications have issued, but there can be no assurance that all of the applications will be issued. The enforceability of any patents, trademarks, copyrights, software licenses and other IP we own or may own may be uncertain in certain circumstances. Effective IP protection may be unavailable, limited or not applied for in the U.S. and internationally. The various laws and regulations governing registered and unregistered IP assets, patents, trade secrets, trademarks, mask works and copyrights to protect products and technologies are subject to legislative and regulatory change and interpretation by courts. With respect to our IP generally, we cannot assure you that:

- any of the U.S. or foreign patents and pending patent applications that we may employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned, or licensed to others;
- any of our pending or future patent applications will be issued, have the coverage originally sought or be enforceable against third party infringers;
- any of the trademarks, copyrights, trade secrets, know-how or mask works that we employ or will employ in our business will not lapse or be invalidated, circumvented, challenged, abandoned, or licensed to others; or
- any of our pending or future trademark, copyright, or mask work applications will be issued or have the coverage originally sought.

If we seek to enforce our rights, we may be subject to claims that the IP right is invalid, is otherwise not enforceable or is licensed to the party against whom we are asserting a claim. In addition, our assertion of IP rights may result in the other party seeking to assert alleged IP rights of its own against us, which may materially adversely impact our business. An unfavorable ruling in these sorts of matters could include money damages or an injunction prohibiting us from manufacturing or selling one or more products,



which could in turn negatively affect our business, results of operations or cash flows.

In addition, some of our products and technologies may not be covered by any patents or pending patent applications. We intend to protect our proprietary technologies, including technologies that may not be patented or patentable, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our collaborators, advisors, employees and consultants. We cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that persons or institutions will not assert rights to IP arising out of our research. Should we be unable to protect our IP, competitors may develop products or technologies that duplicate our products or technologies, benefit financially from innovations for which we bore the costs of development and undercut the sales and marketing of our products, all of which could have a material adverse effect on our business, results of operations and financial condition.

***If our technologies are subject to claims of infringement on the intellectual property rights of third parties, efforts to address such claims could have a material adverse effect on our results of operations.***

We may from time to time be subject to claims that we may be infringing third-party intellectual property ("IP") rights. If necessary or desirable, we may seek licenses under such IP rights. However, we cannot assure you that we will obtain such licenses or that the terms of any offered licenses will be acceptable to us. The failure to obtain a license from a third-party for IP we use could cause us to incur substantial liabilities or to suspend the manufacture or shipment of products or our use of processes requiring such technologies. Further, we may be subject to IP litigation, which could cause us to incur significant expense, materially adversely affect sales of the challenged product or technologies and divert the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome in any such litigation, we may be required to:

- pay substantial damages;
- indemnify customers or distributors;
- cease the manufacture, use, sale, or importation of infringing products;
- expend significant resources to develop or acquire non-infringing technologies;
- discontinue the use of processes; or
- obtain licenses, which may not be available on reasonable terms, to the infringing technologies.

The outcome of IP litigation is inherently uncertain and, if not resolved in our favor, could materially and adversely affect our business, financial condition, and results of operations.

## **Risks Relating to Our Common Stock**

***We are a smaller reporting company, and we cannot be certain if the reduced disclosure requirements applicable to smaller reporting companies will make our common stock less attractive to investors.***

We are currently a "smaller reporting company," meaning that we are not an investment company, an asset-backed issuer, or a majority-owned subsidiary of a parent company that is not a smaller reporting company, and we had a public float of less than \$250 million and annual revenues of less than \$100 million as of the last business day of our second fiscal quarter during the fiscal year ended June 30, 2025, which is when such determination is made. In the event that we are still considered a smaller reporting company at such time as we cease being an "emerging growth company," we will be required to provide additional disclosure in our SEC filings. However, similar to emerging growth companies, smaller reporting companies are able to provide simplified executive compensation disclosures in their filings; are exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act requiring that independent registered public accounting firms provide an attestation report on the effectiveness of internal control over financial reporting; and have certain other decreased disclosure obligations in their SEC filings, including, among other things, only being required to provide two years of audited financial statements in annual reports and in a registration statement under the Exchange Act on Form 10. Decreased disclosures in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects. We will remain exempt from the provisions of Section 404(b) of the Sarbanes-Oxley Act until we no longer qualify as a smaller reporting company or an emerging growth company. Depending on when our filer status changes and we lose our ability to rely on the exemption from Section 404(b), we may not have procedures and systems in place to immediately comply with its requirements.

***We have identified material weaknesses in our internal control over financial reporting that, if not properly remediated, could result in material misstatements in our consolidated financial statements in future periods.***

Our management identified a material weakness in our internal control over financial reporting as of June 30, 2025, and concluded that our disclosure controls and procedures were ineffective as of June 30, 2025. Management concluded that there was a material weakness in our internal controls because there was an insufficient number of personnel with appropriate technical accounting and SEC reporting expertise to adhere to certain control disciplines and to evaluate and properly record certain non-routine and complex transactions. As of August 4, 2025, we hired a full-time Chief Financial Officer who we believe will help resolve the identified material weaknesses and mitigate any material weaknesses in future periods.

A material weakness in internal control over financial reporting is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements would not be prevented or detected on a timely basis. If we fail to (1) remediate the significant deficiencies identified in the Company's internal control over financial reporting, (2) maintain the adequacy of internal control over our financial reporting with regard to the financial condition and results of operations of the Company, or (3) remediate the material weakness identified in our internal controls over financial reporting, we probably will not be able to conclude that we have effective internal control over financial reporting in accordance with Section 404 of Sarbanes Oxley, as such standards are modified, supplemented or amended from time to time. Also, such ineffective controls could impair our ability to report quarterly and annual financial results, or other information required to be disclosed, in a timely and accurate manner and could cause our financial reporting to be unreliable, leading to misinformation being disseminated to the public. In addition, other material weaknesses may be identified in the future. If we are unable to correct deficiencies in internal controls in a timely manner, our ability to record, process, summarize and report financial information accurately and within the time periods specified in SEC rules and forms will be adversely affected. These failures could negatively affect the market price and trading liquidity of our common stock, cause investors to lose confidence in our reported financial information, subject us to civil and criminal investigations and penalties, and generally materially and adversely impact our business and financial condition.

***There may be limitations on the effectiveness of our internal controls, and a failure of our control systems to prevent error or fraud may materially harm our company.***

Proper systems of internal controls over financial accounting and disclosure are critical to the operation of a public company. As we are a start-up company, we are at the very early stages of establishing, and we may be unable to effectively establish such systems, especially in light of the fact that we expect to operate as a publicly reporting company. This would leave us without the ability to reliably assimilate and compile financial information about the Company and significantly impair our ability to prevent error and detect fraud, all of which would have a negative impact on the Company from many perspectives.

Moreover, we do not expect that disclosure controls or internal control over financial reporting, even if established, will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Failure of our control systems to prevent error or fraud could materially adversely impact us.

***Our officers, directors, and 5%+ stockholders own a significant percentage of our outstanding voting securities, which could reduce the ability of minority stockholders to effect certain corporate actions.***

Collectively, our officers and directors own an aggregate of 2,625,533 shares of our common stock, or approximately 14.7% of our outstanding voting securities. We also have two stockholders who own over 5% of our common stock on an individual basis. As a result, such persons may exert a substantial influence on actions requiring a shareholder vote, potentially in a manner that you do not support, including amendments to our amended and restated certificate of incorporation and approval of major corporate transactions. Such persons are expected to have significant influence over a decision to enter into any corporate transaction. Such concentration of voting power could have the effect of delaying, deterring, or preventing a change of control or other business combination, which could, in turn, have an adverse effect on the market price of our Common Stock or prevent our shareholders from realizing a premium over the then-prevailing market price for their Common Stock.

In addition, our board of directors is and will be divided into three classes, each of which will generally serve for a term of three years with only one class of directors being elected in each year. As a consequence of our "staggered" board of directors, only a minority of the board of directors will be considered for election and our officers and directors, because of their ownership position, will have considerable influence regarding the outcome.

***We do not currently intend to pay dividends on our Common Stock in the foreseeable future, and consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our Common Stock.***

We have never declared or paid cash dividends on our Common Stock and do not anticipate paying any cash dividends to holders of our Common Stock in the foreseeable future. Consequently, investors must rely on sales of their shares after price appreciation, which may never occur, as the only way to realize any future gains on their investments. There is no guarantee that shares of our Common Stock will appreciate in value or even maintain the price at which our stockholders have purchased their shares.

***We may be subject to penny stock regulations and restrictions and if we are subject to such regulations and restrictions you may have difficulty selling shares of our Common Stock.***

The Commission has adopted regulations that generally define so-called "penny stocks" as an equity security that has a market price of less than \$5.00 per share or an exercise price of less than \$5.00 per share, subject to certain exemptions. Our Common Stock has been and may again be considered a "penny stock," and when it is we are subject to Rule 15c-9 under the Exchange Act, or the Penny Stock Rule. This rule imposes additional sales practice requirements on broker-dealers that sell such securities to persons other than established customers and "accredited investors" (generally, individuals with a net worth in excess of \$1,000,000 or annual income exceeding \$200,000, or \$300,000 together with their spouses). For transactions covered by Rule 15c-9, a broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to sale. As a result, this rule can affect the ability of broker-dealers to sell our securities and affects the ability of purchasers to sell any of our securities in the secondary market.

For any transaction involving a penny stock, unless exempt, the rules require delivery, prior to any transaction in a penny stock, of a disclosure schedule prepared by the Commission relating to the penny stock market. Disclosure is also required to be made about sales commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Finally, monthly statements are required to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stock.

There can be no assurance how long our shares of Common Stock will not be considered a "penny stock" because of its price or qualification for exemption from the Penny Stock Rule. In any event, even when our Common Stock is exempt from the Penny Stock Rule, we would remain subject to Section 15(b)(6) of the Exchange Act, which gives the Commission the authority to restrict any person from participating in a distribution of penny stock if the Commission finds that such a restriction would be in the public interest.

In addition to the "penny stock" rules described above, the Financial Industry Regulatory Authority ("FINRA") has adopted similar rules that may also limit a stockholder's ability to buy and sell our Common Stock. FINRA rules require that in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for such customer. Prior to recommending speculative low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA believes that there is a high probability that speculative low-priced securities will not be suitable for at least some customers. The FINRA requirements make it more difficult for broker-dealers to recommend that their customers buy our Common Stock, which may limit your ability to buy and sell our stock and have an adverse effect on the market for our shares.

***We have agreed to register the shares of common stock issued in the Merger and the Offering, as well as the common stock held by our pre-Merger stockholders.***

We have agreed, at our expense, to prepare and file this registration statement with the SEC registering the resale of up to (1) 4,100,002 shares of our common stock issued in connection with the Merger; (2) 50,000 shares of common stock issued to the Placement Agent and up to approximately 360,000 shares reserved for issuance pursuant to Placement Agent Warrants; (3) all shares issued in connection with the Offering; and (4) 2,500,000 shares of our common stock held by our pre-Merger stockholders. If (i) this registration statement ceases to remain continuously effective or the holders described above are otherwise not permitted to utilize the prospectus therein to resell their registrable securities for a specified period of time, or (ii) trading of our common stock is suspended or halted on the market on which our common stock trades for more than three full, consecutive trading days, then we may be subject to certain liquidated damages pursuant to the registration rights agreement we entered into with the holders described above.

Rule 144 under the Securities Act, which generally permits the resale, subject to various terms and conditions, of limited amounts of restricted securities after they have been held for six months will not immediately apply to our common stock because we were at one time designated as a "shell company" under SEC regulations. Pursuant to Rule 144(i), securities issued by a current or former shell company that otherwise meet the holding period and other requirements of Rule 144 nevertheless cannot be sold in reliance on Rule 144 until one year after the date on which the issuer filed current "Form 10 information" (as defined in Rule 144(i)) with the SEC reflecting that it ceased being a shell company, and provided that at the time of a proposed sale pursuant to Rule 144, the issuer has satisfied certain reporting requirements under the Exchange Act. We believe this requirement to file Form 10 information was satisfied by the filing of the report on Form 8-K that we filed on June 28, 2021. Because, as a former shell company, the reporting requirements of Rule 144(i) will apply regardless of holding period, the restrictive legends on certificates for the shares of common stock issued in the

Offering cannot be removed except in connection with an actual sale that is subject to an effective registration statement under, or an applicable exemption from the registration requirements of, the Securities Act.

***Substantial future sales of shares of our common stock could cause the market price of our common stock to decline.***

We will finance our immediate cash needs (and expect to finance our future cash needs until we become profitable, if ever) through equity offerings, debt financings or other third-party funding, marketing and distribution arrangements and other collaborations, strategic alliances, and licensing arrangements. We will require substantial funding to fund our business. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted.

Sales of substantial amounts of Common Stock in the public market, or the perception that such sales could occur, could materially adversely affect the market price of the Common Stock, and may make it more difficult for you to sell your securities at a time and price that you deem appropriate.

The market price of our Common Stock could decline as a result of sales of substantial amounts of our Common Stock in the public market, or the perception that these sales could occur. In addition, these factors could make it more difficult for us to raise funds through future offerings of our Common Stock.

***Sales of our shares of Common Stock in the public market by investors may cause the market price of our Common Stock to decline.***

Sales of our shares, as well as the issuance of shares of Common Stock in future offering could result in resales of our Common Stock by our current shareholders concerned about the potential dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our Common Stock. If and when we issue shares of Common Stock through the Shelf S3, it would further dilute your ownership.

***If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline.***

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. In addition, because we did not become a reporting company by conducting an underwritten initial public offering of our common stock, security analysts of brokerage firms may not provide coverage of our company. We cannot assure you that brokerage firms will provide analyst coverage of our company in the future or continue such coverage if started. In addition, investment banks may be less likely to agree to underwrite secondary offerings on our behalf than they might if we became a public reporting company by means of an underwritten initial public offering, because they may be less familiar with our company as a result of more limited coverage by analysts and the media, which could harm our ability to raise additional funding in the future. The failure to receive research coverage or support in the market for our shares will have an adverse effect on our ability to develop a liquid market for our common stock, which will negatively impact the trading price of our common stock.

If any of the analysts who cover us issue an adverse or misleading opinion regarding us, or if our operating results fail to meet the expectations of analysts, our stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

***Because the Merger was a reverse merger, this registration statement may be subject to heightened scrutiny by the SEC.***

Certain SEC rules are more restrictive when applied to reverse merger companies, such as the ability of stockholders to re-sell their shares of common stock pursuant to Rule 144. Rule 144 under the Securities Act, which generally permits the resale, subject to various terms and conditions, of limited amounts of restricted securities after they have been held for six months will not immediately apply to our common stock because we were at one time designated as a “shell company” under SEC regulations. Pursuant to Rule 144(i), securities issued by a current or former shell company that otherwise meet the holding period and other requirements of Rule 144 nevertheless cannot be sold in reliance on Rule 144 until one year after the date on which the issuer filed current “Form 10 information” (as defined in Rule 144(i)) with the SEC reflecting that it ceased being a shell company, and provided that at the time of a proposed sale pursuant to Rule 144, the issuer has satisfied certain reporting requirements under the Exchange Act. We believe this requirement to file Form 10 information was satisfied by the filing of the report on Form 8-K that we filed on June 28, 2021. Because, as a former shell company, the reporting requirements of Rule 144(i) will apply regardless of holding period, the restrictive legends on certificates for the shares of common stock issued in the Merger and the Offering or held by our pre-Merger stockholders cannot be removed except in connection with an actual sale that is subject to an effective registration statement under, or an applicable exemption from the registration requirements of, the Securities Act.

***Provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law may inhibit a takeover of us, which could limit the price investors might be willing to pay in the future for our common stock.***

Our certificate of incorporation and bylaws contains provisions that may discourage unsolicited takeover proposals that stockholders may consider to be in their best interests. These provisions include the ability of the board of directors to designate the terms of and issue new series of preferred shares, which may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities and the division of our board of directors into three classes, serving staggered terms of three years each.

We are also subject to anti-takeover provisions under Delaware law, which could delay or prevent a change of control. Together these provisions may make the removal of management more difficult and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities.

***Our bylaws require, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers, other employees or stockholders for breach of fiduciary duty and certain other actions may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will, subject to certain exceptions, be deemed to have consented to service of process on such stockholder’s counsel, which may have the effect of discouraging lawsuits against our directors, officers, other employees or stockholders.***

Our bylaws will require, to the fullest extent permitted by law, that derivative actions brought in our name, actions against our directors, officers, other employees or stockholders for breach of fiduciary duty and certain other actions may be brought only in the Court of Chancery in the State of Delaware and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to service of process on such stockholder’s counsel except any action (A) as to which the Court of Chancery in the State of Delaware determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), (B) which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery or (C) for which the Court of Chancery does not have subject matter jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and consented to the forum provisions in our amended and restated bylaws. This choice of forum provision may limit or make more costly a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees, or stockholders, which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, operating results, and financial condition.

Our bylaws will provide that the exclusive forum provision will be applicable to the fullest extent permitted by applicable law, subject to certain exceptions. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. As a result, the exclusive forum provision will not apply to suits brought to enforce any duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. In addition, our bylaws provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act, or the rules and regulations promulgated thereunder. We note, however, that there is uncertainty as to whether a court would enforce this provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Section 22 of the Securities Act creates concurrent jurisdiction for state and federal courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

***Upon dissolution of the Company, you may not recoup all or any portion of your investment.***

In the event of a liquidation, dissolution or winding-up of our company, whether voluntary or involuntary, the proceeds and/or assets of the Company remaining after giving effect to such transaction, and the payment of all of our debts and liabilities will be distributed to the stockholders of Common Stock on a pro rata basis. There can be no assurance that we will have available assets to pay to the holders of Common Stock, or any amounts, upon such a liquidation, dissolution or winding-up of our Company. In this event, you could lose some or all of your investment.

***The market price and trading volume of our common stock may be volatile.***

The quotation systems and stock exchanges, including Nasdaq, on which our common stock is quoted, have from time to time experienced significant price and volume fluctuations. Even if our common stock is quoted on the Nasdaq, the market price of our common stock may be volatile and could decline significantly. In addition, the trading volume in our common stock may fluctuate and cause significant price variations to occur. If the market price of our common stock declines significantly, you may be unable to resell your shares at or above the market price of our common stock. We cannot assure you that the market price of common stock will not fluctuate widely or decline significantly in the future in response to a number of factors, including, among others, the following:

- the realization of any of the risk factors presented in this prospectus;
- actual or anticipated differences in our estimates, or in the estimates of analysts, for our revenues, results of operations, level of indebtedness, liquidity, or financial condition;
- additions and departures of key personnel;
- failure to comply with the requirements of Nasdaq;
- failure to comply with the Sarbanes-Oxley Act or other laws or regulations;
- future issuances, sales, resales or repurchases or anticipated issuances, sales, resales or repurchases, of our common stock;
- publication of research reports about us, or the semiconductor and sensors industries generally;
- the performance and market valuations of other similar companies;
- broad disruptions in the financial markets, including sudden disruptions in the credit markets;
- speculation in the press or investment community;
- actual, potential, or perceived control, accounting or reporting problems; and
- changes in accounting principles, policies, and guidelines.

In the past, securities class-action litigation has often been instituted against companies following periods of volatility in the market price of their shares. This type of litigation could result in substantial costs and divert our management's attention and resources, which could have a material adverse effect on us.

***We are an emerging growth company and a smaller reporting company, and any decision on our part to comply only with certain reduced reporting and disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our common stock less attractive to investors.***

We are an "emerging growth company," as defined in the JOBS Act, and, for as long as we continue to be an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to other public companies but not to emerging growth companies, including:

- not being required to have our independent registered public accounting firm audit our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act;
- reduced disclosure obligations regarding executive compensation in our periodic reports and annual report on Form 10-K; and
- exemptions from the requirements of holding non-binding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We could be an emerging growth company for up to five years following the completion of our initial public offering. Our status as an emerging growth company will end as soon as any of the following takes place:

- the last day of the fiscal year in which we have more than \$1.235 billion in annual revenues;
- the date we qualify as a "large accelerated filer," with at least \$700 million of equity securities held by non-affiliates;
- the date on which we have issued, in any three-year period, more than \$1.0 billion in non-convertible debt securities; or
- the last day of the fiscal year ending after the fifth anniversary of the completion of this offering.

We cannot predict if investors will find our common stock less attractive if we choose to rely on any of the exemptions afforded emerging growth companies. If some investors find our common stock less attractive because we rely on any of these exemptions, there may be a less active trading market for our common stock and the market price of our common stock may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this provision of the JOBS Act. As a result, we will not be subject to new or revised accounting standards at the same time as other public companies that are not emerging growth companies. Therefore, our consolidated financial statements may not be comparable to those of companies that comply with new or revised accounting pronouncements as of public company effective dates.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a “smaller reporting company” even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than \$250 million measured on the last business day of our second fiscal quarter, or our annual revenues is less than \$100 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than \$700 million measured on the last business day of our second fiscal quarter.

***We may face risks related to securities litigation that could result in significant legal expenses and settlement or damage awards.***

We may in the future become subject to claims and litigation alleging violations of the securities laws or other related claims, which could harm our business and require us to incur significant costs. Significant litigation costs could impact our ability to comply with certain financial covenants under our credit agreement. We are generally obliged, to the extent permitted by law, to indemnify our current and former directors and officers who are named as defendants in these types of lawsuits. Regardless of the outcome, litigation may require significant attention from management and could result in significant legal expenses, settlement costs or damage awards that could have a material impact on our financial position, results of operations and cash flows.

***FINRA sales practice requirements may limit a stockholder's ability to buy and sell our stock.***

The Financial Industry Regulatory Authority (“FINRA”) has adopted rules requiring that, in recommending an investment to a customer, a broker-dealer must have reasonable grounds for believing that the investment is suitable for that customer.

Prior to recommending speculative or low-priced securities to their non-institutional customers, broker-dealers must make reasonable efforts to obtain information about the customer's financial status, tax status, investment objectives and other information. Under interpretations of these rules, FINRA has indicated its belief that there is a high probability that speculative or low-priced securities will not be suitable for at least some customers. If these FINRA requirements are applicable to us or our securities, they may make it more difficult for broker-dealers to recommend that at least some of their customers buy our common stock, which may limit the ability of our stockholders to buy and sell our common stock and could have an adverse effect on the market for and price of our common stock.

***If we are unable to comply with the continued listing requirements of The Nasdaq Capital Market, our Common Stock could be delisted, which would adversely affect our common stock market price and liquidity and reduce our ability to raise capital.***

The listing of our common stock on the Nasdaq Capital Market is contingent on our compliance with the Nasdaq Capital Market's conditions for continued listing. While we are currently in compliance with Nasdaq listing requirements and diligently attempt to remain in compliance, there is no guarantee that we will remain in compliance. If we were to fail to meet a Nasdaq Capital Market listing requirement, we may be subject to delisting by the Nasdaq Capital Market. In the event our common stock is no longer listed for trading on the Nasdaq Capital Market, our trading volume and share price may decrease and we may experience further difficulties in raising capital which could materially affect our operations and financial results. Further, delisting from the Nasdaq Capital Market could also have other negative effects, including potential loss of confidence by investors, employees, and fewer business development opportunities. Finally, delisting could make it harder for us to raise capital and sell securities.

***An investment in our company should be considered illiquid.***

There is currently a limited market for our Common Stock. An investment in the Company requires a long-term commitment, with no certainty of return. Because we did not become an SEC reporting company by the traditional means of conducting an initial public offering of our Common Stock, we may be unable to establish a liquid market for our Common Stock. Moreover, we do not expect security analysts of brokerage firms to provide coverage of the Company in the near future. In addition, investment banks may be less likely to agree to underwrite primary or secondary offerings on behalf of the Company or its stockholders in the future than they would if we were to become a public reporting company by means of an initial public offering of common stock. If all or any of the foregoing risks occur, it would have a material adverse effect on the Company. We cannot predict whether an active market for our Common Stock will ever develop in the future. The lack of an active market impairs purchasers of the Company's Common Stock at the time they wish to sell their shares or at a price that they consider reasonable. The lack of an active market may also reduce the fair market value of the Company's Common Stock.

We have agreed, at our expense, to prepare and file this registration statement with the SEC registering the resale of up to (1) 2,017,498 shares of our common stock issued in connection with the Offering; and (2) up to approximately 85,653 shares reserved for issuance pursuant to Placement Agent Warrants. To the extent the effectiveness of this registration statement is not maintained, the shares of common stock covered herein will not be eligible for resale until the registration statement is once again declared effective or an exemption from registration, such as Rule 144, becomes available. If (i) this registration statement ceases to remain continuously effective or the holders described above are otherwise not permitted to utilize the prospectus therein to resell their registrable securities for a specified period of time, or (ii) trading of our common stock is suspended or halted on the Nasdaq Capital Market for more than three full, consecutive trading days, then we may be subject to certain liquidated damages pursuant to the registration rights agreement we entered into with the holders described above.

***Because our management will have broad discretion over the use of the net proceeds from the Offering, you may not agree with how we use them, and the proceeds may not be invested successfully.***

We intend to use the net proceeds from the Offering, as well as any cash exercises of the Placement Agent Warrants, if any for working capital and general corporate purposes, and therefore, our management will have broad discretion as to the use of the Offering proceeds. Accordingly, you will be relying on the judgment of our management with regard to the use of these net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the proceeds will be invested in a way that does not yield a favorable, or any, return for our company.

***We may need to raise additional capital by sales of our securities, which may adversely affect the market price of our Common Stock and your rights in us may be***

reduced.

We expect to continue to incur product development and selling, general and administrative costs, and in order to satisfy our funding requirements, we will need to continue to raise additional capital above and beyond the anticipated proceeds of this offering. The sale or the proposed sale of substantial amounts of our Common Stock or other securities in the public markets may adversely affect the market price of our Common Stock and our stock price may decline substantially. Our stockholders may experience substantial dilution and a reduction in the price that they are able to obtain upon sale of their shares. Also, new equity securities issued may have greater rights, preferences, or privileges than our existing Common Stock. Furthermore, additional capital may not be available in sufficient amounts or on reasonable terms, if at all, and our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions and the recent disruptions to and volatility in the credit and financial markets in the United States and worldwide resulting from the COVID-19 pandemic.

#### **SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains forward-looking statements that involve risks and uncertainties, including statements based on our current expectations, assumptions, estimates and projections about us, our industry, and the regulatory environment in which we and companies integral to our ecosystem operate. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Use of Proceeds,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance, or achievements to be materially different from those expressed or implied by the forward-looking statements. In some cases, these forward-looking statements can be identified by words or phrases such as “may,” “will,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “potential,” “continue,” “is/are likely to” or other similar expressions. The forward-looking statements included in this prospectus relate to, among others:

- our ability to protect and enforce our intellectual property protection and the scope and duration of such protection;
- our reliance on vendors;
- our ability to attract and retain key personnel;
- anticipated trends, growth rates and challenges in our business and in the markets in which we operate;
- our estimates regarding the use of proceeds from the Offering, expenses, future revenues, capital requirements and our need for or ability to obtain additional financing to fund our operations;
- developments and projections relating to our competitors and our industry, including market projections, estimated product pricing, market adoption of new technologies and changing industry trends;
- the impact of current and future laws and regulations;
- the impact of the COVID-19 crisis on our business, results of operations and future growth prospects;
- our intended use of proceeds from the Offering (as defined below); and
- the implementation of our business model and strategic plans for our business and products;
- the scope of protection we are able to establish and maintain for intellectual property rights covering our products and our ability to operate our business without infringing the intellectual property rights of others;
- the performance of our third-party suppliers and manufacturers;
- our ability to maintain and establish collaborations or obtain additional funding;
- the success of competing products that are currently or may become available;
- our ability to continue as a going concern;
- our financial performance;
- developments and projections relating to our competitors and our industry; and,
- other risks and uncertainties, including those listed under the caption “Risk Factors.”

We caution you that the forward-looking statements highlighted above do not encompass all of the forward-looking statements made in this prospectus or in the documents incorporated by reference in this prospectus.

There are important factors that could cause actual results to vary materially from those described in this registration statement, of which this prospectus is a part, as anticipated, estimated or expected, including, but not limited to: the effects of the COVID-19 outbreak, including on the demand for our products; the pace of recovery following the COVID-19 pandemic; our ability to implement cost containment and business recovery strategies; the adverse effects of the COVID-19 outbreak on our business or the market price of our common stock; competition in the industry in which we operate and the impact of such competition on pricing, revenues and margins, volatility in the securities market due to the general economic downturn; SEC regulations which affect trading in the securities of “penny stocks,” and other risks and uncertainties described herein and elsewhere in the documents incorporated by reference into this prospectus. Moreover, we operate in a very competitive and challenging environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus and in the documents incorporated by reference in this prospectus. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. Except as required by law, we assume no obligation to update any forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, even if new information becomes available in the future. Depending on the market for our

stock and other conditional tests, a specific safe harbor under the Private Securities Litigation Reform Act of 1995 may be available. Notwithstanding the above, Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) expressly state that the safe harbor for forward-looking statements does not apply to companies that issue penny stock. Because we may from time to time be considered to be an issuer of penny stock, the safe harbor for forward-looking statements may not apply to us at certain times.

The forward-looking statements contained in this prospectus and in the documents incorporated by reference in this prospectus relate only to events as of the date on which the statements are made. We do not undertake any obligation to release publicly any revisions to such forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, other strategic transactions, or investments we may make.

## USE OF PROCEEDS

We are filing this registration statement of which this prospectus is a part to permit holders of the shares of our common stock described in the section titled “Selling Stockholders” to resell such shares. We will not receive any proceeds from the sale of the shares of Common Stock by the selling stockholders pursuant to this prospectus. We will, however, receive the proceeds of any warrants exercised for cash in the future. Such gross proceeds will be up to \$720,000 if all such warrants are exercised, of which there can be no guarantee.

If the placement agent warrants are exercised, then we intend to use any proceeds for working capital and other general corporate purposes. We may use a portion of any proceeds we might receive for acquisitions of complementary businesses, technologies, or other assets. However, we have no commitments to use any proceeds we might receive from this offering for any such acquisitions or investments at this time.

## DETERMINATION OF OFFERING PRICE

Our common stock is currently quoted on the Nasdaq Capital Market under the symbol “ALMU”. The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices or at privately negotiated prices. Except to the extent that we are involved in an underwritten secondary offering of common stock, if any, by the selling stockholders, all shares being offered pursuant to this prospectus will be sold by the selling stockholders without our involvement.

## MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*The following discussion and analysis should be read together with our financial statements and the related notes appearing elsewhere in this prospectus. This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. See “Cautionary Note Regarding Forward-Looking Statements and Industry Data” for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results and the timing of events could differ materially from those discussed in our forward-looking statements as a result of many factors, including those set forth under “Risk Factors” and elsewhere in this prospectus.*

### Overview

Aeluma develops novel optoelectronic and electronic devices for sensing, communication, and computing applications. Aeluma has pioneered a technique to produce semiconductor materials and chips using high-performance compound semiconductors on large-diameter substrates that are commonly used to manufacture mass-market microelectronics. This enables cost-effective manufacturing of high-performance photodetectors and photodetector arrays for imaging applications in mobile devices, as well as other applications. Aeluma’s technology has the potential to impact a broad range of market verticals. Aeluma is based in Goleta, California, where we operate in a 9,000 sq. ft. facility with a state-of-the-art R&D/manufacturing cleanroom and access to world-class rapid prototyping capabilities. The facility houses unique equipment for scalable manufacturing. Aeluma also partners with production-scale fabrication foundries and packaging companies. Aeluma maintains extensive patent protection and trade secrets that relate to its materials, manufacturing technology, and applications.

Aeluma is a transformative semiconductor company specializing in high-performance technology that scales. Applications include mobile, automotive, AI, defense & aerospace, communication, AR/VR, high-performance commuting, and quantum computing. Aeluma aims to break out of traditional manufacturing to expand the reach of its technology into mass markets. The demand for higher-performance semiconductors in consumer markets is increasing (<https://www.marketsandmarkets.com/Market-Reports/shortwave-ir-market-52975079.html>). Aeluma’s disruptive technology is scalable, cost-effective, while not sacrificing performance.

Additionally, Aeluma’s technology may be used to manufacture other electronic and optoelectronic devices including lasers, transistors, and solar cells.

### Recent Government Contracts

In August 2024, we received a contract by NASA to develop quantum dot photonic integrated circuits (PICs) on silicon. This advanced technology targets next-generation space and aerospace applications, enabling capabilities such as free-space laser communication, autonomous navigation, and precision sensing.

In September 2024, we received an \$11.7 million contract with DARPA to develop heterogeneous integration technology for nano-scale semiconductors that is compatible with leading-edge and future advanced-node semiconductors. Technology applications include AI, mobile devices, and 5G/6G wireless networking. This DARPA contract to Aeluma is structured with \$6.0 million expected to be invoiced over the first 18 months and the remaining \$5.7 million invoiced over the following 18 months, contingent on Aeluma meeting certain milestones.

In April 2025, we received a contract with the U.S. Department of Energy to develop commercially viable, low-cost shortwave infrared (SWIR) photodetectors. The award will accelerate commercialization of Aeluma’s wafer-scale platform for high-sensitivity, energy-efficient photodetector sensors applicable across critical growth sectors.

In June 2025, we received a contract with the U.S. Navy that could accelerate development of high-speed photodetectors for government and commercial applications. The new contract is for up to \$1.3 million in funding, includes a major global interconnect manufacturer as a proposed subcontractor, and involves support from a top-tier

government prime contractor.

In June 2025, we received a contract with the U.S. Navy that could accelerate development and commercialization for next-generation quantum computing and sensing systems. The new contract will support Aeluma's low size, weight, and power imaging sensors for next-generation submarine systems.

### Private Placements and Conversion of Notes

Between August 5, 2024 and August 27, 2024, we issued convertible promissory notes in the aggregate principal amount of \$3.1 million to 10 accredited investors, pursuant to a private note financing. The Notes were to mature in June 2026 and did not carry any interest. The Notes were convertible into shares of the Company's common stock par value \$0.0001 per share (the "Common Stock") upon the occurrence of certain events, (i.e., qualified financing resulting in at least \$5.0 million to the Company, if the Common Stock is uplisted to a national securities exchange or if neither of those such events occur prior to the maturity date, (together with Sale of the Company (as hereinafter defined), a "Conversion Event")). In the event the Company did not complete qualified financing or uplist at or before the maturity date, the outstanding balance of the Notes would automatically convert without any further action by the Holder into shares of the Company's common stock equal to eighty-five percent (85%) to the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to maturity date. The Note also provided that if there was a Sale of the Company, as defined in the Note, the Holder may elect to receive a cash payment equal to the aggregate amount of principal then outstanding under such Holder's Note or convert the Note into shares of Common Stock equal to 85% of the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to the Sale of the Company. Although the conversion price was dependent upon the type of Conversion Event that occurs, the Note carried a ceiling and floor price: the applicable conversion price would not be lower than 85% of the 5-day VWAP on the applicable Closing Date (the "Floor Price") nor would the applicable conversion price be higher than \$3.50 per share (the "Ceiling Price"); the Floor Price and Ceiling Price shall automatically adjust in the event of a stock split or consolidation by the Company. The Floor Price for the investors who participated in this initial closing was equal to \$2.68 per share. Since the Floor Price is tied to the Closing Date, the Floor Price may be different for investors who are part of a different closing, should the Company hold additional closings. The Investors were granted piggyback registration rights for the shares of Common Stock underlying the Note.

The Note Purchase Agreement ("NPA") also contains customary representation and warranties of the Company and the Investors, indemnification obligations of the Company, termination provisions, and other obligations and rights of the parties.

The foregoing description of the NPA and the Note is qualified by reference to the full text of the forms of NPA and Note, which are filed as Exhibits hereto and incorporated herein by reference.

On March 25, 2025, we determined that a Conversion Event had occurred pursuant to the terms of the Notes. As a result, all holders elected to convert their Notes at the applicable Ceiling Price of \$3.50 per share, resulting in the issuance of an aggregate of 898,573 shares of Common Stock in exchange for \$3.1 million in outstanding principal under the Notes. Following the conversion, we have no further obligations under the converted Notes. The shares issued upon conversion are subject to piggyback registration rights previously granted to the investors. See Public Offering of Common Stock in Note 3 – Convertible Notes

### Public Offering of Common Stock

On March 26, 2025, we entered into an Underwriting Agreement ("UA") with Craig-Hallum Capital Group LLC (Craig-Hallum) in connection with a public offering of 2,285,714 shares of its common stock at a price of \$5.25 per share (the "Offering"). We also granted the Underwriter a 30-day option to purchase up to an additional 342,857 shares to cover over-allotments, which was exercised in full on March 27, 2025. The Offering closed on March 28, 2025.

The Offering was conducted pursuant to our registration statements on Form S-1 (File No. 333-285469), declared effective by the SEC on March 25, 2025, and on Form S-1MEF filed under Rule 462(b), effective March 26, 2025.

Under the terms of the UA, we provided a 7.0% underwriting discount per share and issued to the Underwriter warrants to purchase up to 5.0% of the total shares sold in the Offering (including the over-allotment shares), with an exercise price equal to 115% of the public offering price.

Total gross proceeds from the Offering, including the over-allotment option, were \$13.8 million. Net proceeds, after underwriting discounts and Offering expenses, were \$12.6 million. We intend to use the proceeds for business development, scaling manufacturing operations, and general corporate purposes.

In connection with the Offering, we, as well as our directors and officers, agreed to a 90-day lock-up period restricting sales or transfers of Company securities, subject to customary exceptions. The Underwriter has the discretion to release these restrictions at any time.

On September 17, 2025, we entered into another underwriting agreement (the "Underwriting Agreement") with Craig-Hallum, as the representative of the several underwriters named therein (the "Underwriters"), relating to the issuance and sale by the Company of 1,700,000 shares of the Company's Common Stock in a public offering (the "CH Offering"). The public offering price in the CH Offering was \$13.00 per share of Common Stock. In connection with the Offering, the Company granted the Underwriters a 30-day option to purchase up to 255,000 additional shares of its Common Stock at the public offering price, less the underwriting discount, and on September 18, 2025, the Underwriters exercised such option to purchase an additional 255,000 shares of Common Stock. The Offering closed on September 19, 2025.

The net proceeds to the Company from the CH Offering were approximately \$23.4 million, after deducting underwriting discounts and commissions and after payment of estimated offering expenses of approximately \$200,000. The Company intends to use such proceeds, together with its existing cash and cash equivalents, for expansion of business development efforts including (i) advancing manufacturing processes for production; (ii) hiring new employees; and (iii) working capital and general business purposes.

In connection with the Offering, we, as well as our directors and officers, agreed to a 90-day lock-up period restricting sales or transfers of Company securities, subject to customary exceptions. The Underwriter has the discretion to release these restrictions at any time.

### Executive Officer Announcements

As of March 18, 2025, Mr. James Seo agreed to serve as Aeluma's interim Chief Financial Officer/Principal Accounting Officer until we hire a full-time CFO. Mr. Seo has been serving as our Controller since May 2023. As of August 4, 2025, Mr. Christopher Stewart agreed to serve as Aeluma's Chief Financial Officer/Principal Accounting Officer, replacing Mr. James Seo, our Interim CFO.

### Plan of Operations



Our technology is based on heterogeneous integration of compound semiconductor materials on large-diameter substrates such as silicon. This heterogeneous integration enables the subsequent device fabrication and manufacturing in large-scale manufacturing environments that are suited to mass markets.

We will continue to develop our technology that includes novel materials and devices based on our core intellectual property. Our primary focus is to manufacture high-performance semiconductor technologies that scale for mass markets. Aeluma operates R&D/manufacturing facilities at its headquarters in Goleta, California, and has developed relationships with volume fabrication foundries and packaging partners. We will continue to mature our manufacturing processes to further our commercialization traction. We have generated revenue through various customer and government contracts, including small-volume orders, engineering sample evaluations, non-recurring engineering (NRE) development efforts, and R&D projects. We will continue to perform on these various efforts, expand our business development and marketing efforts, further engage with our manufacturing partners, and continue our efforts toward volume production and commercialization. We expect to rely on such external capabilities to scale our production capacity in support of high-volume markets.

### Limited Operating History

We have a limited operating history, and our future success is subject to numerous uncertainties and risks inherent in the development of a new business. Although we successfully completed our public offering on March 26, 2025, raising gross proceeds of \$13.8 million, there can be no assurance that these funds will be sufficient to carry out all aspects of our business plan.

Following the Offering, management has assessed our financial position and operating plan and determined that the previously reported substantial doubt about our ability to continue as a going concern has been alleviated. The proceeds from the Offering have provided near-term capital to support our operations and ongoing development efforts. However, we continue to face risks typical of early-stage companies, including limited capital resources, operational and financial challenges, and uncertainty in product development.

### Components of Results of Operations

#### Revenue

Our revenue currently consists of commercial product sales and government contracts.

#### Operating Expenses

Cost of revenue consists of costs of materials, as well as direct compensation and other expenses incurred to provide deliverables that resulted in payment of our services performed and wafers delivered. We anticipate that our cost of revenue will vary substantially depending on the nature of products and/or services delivered in each customer engagement.

R&D expenses consist primarily of compensation and related costs for personnel, including stock-based compensation and employee benefits, costs associated with design, fabrication, packaging and testing of our devices, and facility lease and utility expenses. We expense R&D expenses as incurred.

General and administrative expenses consist primarily of compensation and related costs for personnel, including stock-based compensation and employee benefits. In addition, general and administrative expenses include third-party consulting, legal, insurance, audit and accounting services, and office lease and utility expenses.

#### Other (Income) Expense

Interest income consists primarily of interest earned in interest-bearing savings accounts and certificates of deposit placed in a bank.

Amortization of discount on convertible notes represents the non-cash interest expense associated with the amortization of convertible notes issued to our debtholders.

Changes in the fair value of derivative liabilities reflect valuation changes in the derivatives held by us.

#### Income Tax Expense

Income tax expense consists primarily of income taxes in certain state jurisdictions in which we conduct business.

### Results of Operations

Our results of operations for the fiscal year ended June 30, 2025, as compared to the same period of 2024, were as follows (\$ in thousands):

	Year Ended June 30,			
	2025	2024	\$ Change	% Change
Revenue	\$ 4,665	\$ 919	\$ 3,746	407.9%
Operating expenses	6,807	5,482	1,325	24.2%
Other (income) expense	(880)	1	(881)	n/m
Loss before income tax expense	(3,022)	(4,562)	1,540	-33.8%
Income tax expense	-	-	-	-
Net loss	\$ (3,022)	\$ (4,562)	\$ 1,540	-33.8%

Revenue: Revenue increased \$3.7 million to \$4.7 million, of which \$4.4 million was derived from government contracts and \$266 thousand from commercial product and service contracts for the fiscal year ended June 30, 2025. Revenue was \$919 thousand, of which \$854 thousand was derived from government contracts and \$65 thousand from commercial product and service contracts, for the fiscal year ended June 30, 2024.

Operating expenses: Operating expenses increased \$1.3 million, or 24.2%, to \$6.8 million for the fiscal year ended June 30, 2025, compared to \$5.5 million for the same period in 2024. The increase was primarily driven by an increase in material purchases to support the delivery of our products and services associated with revenue, as well as

higher compensation and related costs, including salaries, stock-based compensation, and employee benefits.

**Other (income) expense:** Other (income) expense consists of amortization of discount on convertible notes of (\$715) thousand, changes in fair value of derivative liabilities of (\$278) thousand, and interest income of \$113 thousand for the fiscal year ended June 30, 2025.

**Income tax expense:** No income tax expense was recorded for the fiscal years ended June 30, 2025 and 2024.

### Liquidity and Capital Resources

As of June 30, 2025, we had cash, cash equivalents, and a certificate of deposit totaling \$15.7 million, compared to \$1.3 million as of June 30, 2024. The increase in cash was primarily attributable to the net proceeds from the Offering, which generated gross proceeds of \$13.8 million, offset by underwriting discounts and offering expenses totaling \$1.2 million.

Prior to the Offering, our operations were primarily financed through the issuance of convertible notes and sales of common stock in private placement transactions. As previously disclosed, we had expressed substantial doubt about our ability to continue as a going concern due to recurring losses and negative operating cash flows. With the successful completion of the Offering, we believe that substantial doubt about our ability to continue as a going concern has been alleviated for at least the next twelve months.

We intend to use the net proceeds from the Offering to support operational growth, invest in product development, and fund working capital and general corporate purposes. Based on our current operating plan, we believe that our existing cash, cash equivalents, and certificate of deposit, combined with projected revenues and cost management strategies, will be sufficient to meet our working capital and capital expenditure requirements for at least the next twelve months.

We will continue to assess our capital requirements and may pursue additional financing opportunities to support long-term growth initiatives or respond to changes in market conditions.

As of June 30, 2025, we had working capital of \$16.6 million, compared to \$766 thousand as of June 30, 2024. The increase was primarily driven by a \$15.9 million increase in current assets, which rose to \$17.3 million from \$1.4 million over the same period, largely due to a \$14.4 million increase in cash, cash equivalents, and a certificate of deposit. Current liabilities totaled \$706 thousand and \$627 thousand as of June 30, 2025 and 2024, respectively, and the balances primarily consisted of accounts payable, along with accrued expenses and other short-term obligations expected to be settled within one year.

The following table shows a summary of our cash flows for the periods presented (\$ in thousands):

	Year Ended June 30,			
	2025	2024	\$ Change	% Change
Net cash provided by (used in)				
Operating activities	\$ (1,148)	\$ (3,455)	\$ 2,307	-66.8%
Investing activities	(161)	(322)	161	-50.0%
Financing activities	15,757	(4)	15,761	n/m
<b>Increase (decrease) in cash</b>	<b>\$ 14,449</b>	<b>\$ (3,781)</b>	<b>\$ 18,230</b>	<b>n/m</b>

Net cash used in our operating activities were \$1.1 million and \$3.5 million for the fiscal years ended June 30, 2025 and 2024, respectively. For the fiscal year ended June 30, 2025, the net cash used in operating activities primarily resulted from a net loss of \$3.0 million and decreases in accounts receivable of \$1.0 million, and prepaid and other current assets of \$609 thousand. These amounts were partially offset by non-cash expenses including stock-based compensation expense of \$1.9 million, amortization of discount on convertible notes of \$715 thousand, depreciation and amortization expense of \$416 thousand, and a change in fair value of derivative liabilities of \$278 thousand. For the fiscal year ended June 30, 2024, the net cash used in operating activities was primarily attributable to a net loss of \$4.6 million, partially offset by non-cash stock-based compensation expense of \$732 thousand and depreciation and amortization expense of \$311 thousand.

Net cash used in our investing activities totaled \$161 thousand and \$322 thousand for the fiscal years ended June 30, 2025 and 2024, respectively. These investing activities primarily consisted of purchases of equipment.

Net cash provided by our financing activities was \$15.8 million for the fiscal year ended June 30, 2025, compared to net cash used in our financing activities of \$4 thousand for the same period in 2024. We received \$3.1 million from the issuance of convertible notes, \$12.6 million from the Offering, and \$25 thousand from the exercise of stock options for the fiscal year ended June 30, 2025, compared to \$4 thousand we used to purchase unvested restricted shares during the same period in 2024.

### Critical Accounting Policies

The accompanying discussion and analysis of our financial condition and results of operations is based upon our audited consolidated financial statements, which have been prepared in accordance with GAAP. We believe certain of our accounting policies are critical to understanding our financial position and results of operations. Our significant accounting policies and estimates are discussed in the “Notes to Consolidated Financial Statements, Note 2 — Summary of Significant Accounting Policies.”

### Recent Accounting Pronouncements

New accounting pronouncements adopted and under evaluation are discussed in the “Notes to Consolidated Financial Statements, Note 2 — Summary of Significant Accounting Policies.”

## BUSINESS

### Overview

We develop high-performance semiconductors for sensing, communication, and computing applications. Aeluma has pioneered a technique to manufacture devices using compound semiconductor materials on large-diameter substrates that are commonly used to manufacture mass-market microelectronics. This enables cost-effective manufacturing of high-performance photodetectors and photodetector arrays for imaging applications in mobile devices, as well as other applications. Aeluma’s technology has the potential to impact a broad range of market verticals. Aeluma is based in Goleta, California, considered one of the most important technology hubs in the world that

some claim is the next Silicon Valley. We operate in a 9,000 sq. ft. facility with a state-of-the-art research and development (R&D)/manufacturing cleanroom and access to world-class rapid prototyping capabilities. The facility houses unique equipment for scalable manufacturing. We also partner with production-scale fabrication foundries and packaging companies. We maintain extensive patent protection and trade secrets that relate to our materials, manufacturing technology and applications.

## Recent Events

### Shelf Registration Statement

On July 31<sup>st</sup>, 2025, we filed a registration statement on Form S-3 with the SEC, using a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in the related prospectus in one of more offerings up to a total dollar amount of proceeds of \$100,000,000. The prospectus describes the general manner in which our securities may be offered by the prospectus. Each time we sell securities under the prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update, or change information contained in this prospectus or in documents incorporated by reference in this prospectus. The prospectus supplement that contains specific information about the terms of the securities being offered may also include a discussion of certain U.S. Federal income tax consequences and any risk factors or other special considerations applicable to those securities. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus or in documents incorporated by reference in this prospectus, you should rely on the information in the prospectus supplement. The “shelf” registration statement was originally filed on July 31, 2025, amended on August 6, 2025 and declared effective on August 8, 2025 (File No. 3330289135) (the “**Shelf S3**”).

### Recent Government Contracts

In August 2024, we received a contract by NASA to develop quantum dot photonic integrated circuits (PICs) on silicon. This advanced technology targets next-generation space and aerospace applications, enabling capabilities such as free-space laser communication, autonomous navigation, and precision sensing.

In September 2024, we received an \$11.7 million contract with DARPA to develop heterogeneous integration technology for nano-scale semiconductors that is compatible with leading-edge and future advanced-node semiconductors. Technology applications include artificial intelligence (“AI”), mobile devices, and 5G/6G wireless networking. This DARPA contract to Aeluma is structured with \$6.0 million expected to be invoiced over the first 18 months and the remaining \$5.7 million invoiced over the following 18 months, contingent on Aeluma meeting certain milestones.

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In June 2025, we received a contract with the U.S. Navy that could accelerate development and commercialization for next-generation quantum computing and sensing systems. The new contract will support Aeluma’s low size, weight, and power imaging sensors for next-generation submarine systems.

### Private Placements and Conversion of Notes

Between August 5, 2024 and August 27, 2024, we issued convertible promissory notes in the aggregate principal amount of \$3.1 million to 10 accredited investors, pursuant to a private note financing. The Notes were to mature in June 2026 and did not carry any interest. The Notes were convertible into shares of the Company’s common stock par value \$0.0001 per share (the “Common Stock”) upon the occurrence of certain events, (i.e., qualified financing resulting in at least \$5.0 million to the Company, if the Common Stock is uplisted to a national securities exchange or if neither of those such events occur prior to the maturity date, (together with Sale of the Company (as hereinafter defined), a “Conversion Event”). In the event the Company did not complete qualified financing or uplist at or before the maturity date, the outstanding balance of the Notes would automatically convert without any further action by the Holder into shares of the Company’s common stock equal to eighty-five percent (85%) to the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to maturity date. The Note also provided that if there was a Sale of the Company, as defined in the Note, the Holder may elect to receive a cash payment equal to the aggregate amount of principal then outstanding under such Holder’s Note or convert the Note into shares of Common Stock equal to 85% of the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to the Sale of the Company. Although the conversion price was dependent upon the type of Conversion Event that occurs, the Note carried a ceiling and floor price: the applicable conversion price would not be lower than 85% of the 5-day VWAP on the applicable Closing Date (the “Floor Price”) nor would the applicable conversion price be higher than \$3.50 per share (the “Ceiling Price”); the Floor Price and Ceiling Price shall automatically adjust in the event of a stock split or consolidation by the Company. The Floor Price for the investors who participated in this initial closing was equal to \$2.68 per share. Since the Floor Price is tied to the Closing Date, the Floor Price may be different for investors who are part of a different closing, should the Company hold additional closings. The Investors were granted piggyback registration rights for the shares of Common Stock underlying the Note.

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The foregoing description of the NPA and the Note is qualified by reference to the full text of the forms of NPA and Note, which are filed as Exhibits hereto and incorporated herein by reference.

On March 25, 2025, we determined that a Conversion Event had occurred pursuant to the terms of the Notes. As a result, all holders elected to convert their Notes at the applicable Ceiling Price of \$3.50 per share, resulting in the issuance of an aggregate of 898,573 shares of Common Stock in exchange for \$3.1 million in outstanding principal under the Notes. Following the conversion, we have no further obligations under the converted Notes. The shares issued upon conversion are subject to piggyback registration rights previously granted to the investors. See Public Offering of Common Stock in Note 3 – Convertible Notes

### Public Offering of Common Stock

On March 26, 2025, we entered into an Underwriting Agreement (“UA”) with Craig-Hallum Capital Group LLC in connection with a public offering of 2,285,714 shares of its common stock at a price of \$5.25 per share (the “Offering”). We also granted the Underwriter a 30-day option to purchase up to an additional 342,857 shares to cover over-allotments, which was exercised in full on March 27, 2025. The Offering closed on March 28, 2025.

The Offering was conducted pursuant to our registration statements on Form S-1 (File No. 333-285469), declared effective by the SEC on March 25, 2025, and on Form S-1MEF filed under Rule 462(b), effective March 26, 2025.

Under the terms of the UA, we provided a 7.0% underwriting discount per share and issued to the Underwriter warrants to purchase up to 5.0% of the total shares sold in the Offering (including the over-allotment shares), with an exercise price equal to 115% of the public offering price.

Total gross proceeds from the Offering, including the over-allotment option, were \$13.8 million. Net proceeds, after underwriting discounts and Offering expenses, were \$12.6 million. We intend to use the proceeds for business development, scaling manufacturing operations, and general corporate purposes.

In connection with the Offering, we, as well as our directors and officers, agreed to a 90-day lock-up period restricting sales or transfers of Company securities, subject to customary exceptions. The Underwriter has the discretion to release these restrictions at any time.

## Our Strategy

We will continue to develop our technology that includes novel materials and devices based on our core intellectual property. Our primary focus is to manufacture high-performance semiconductor technologies that scale for mass markets. Our technology has the potential to impact across mobile, automotive, AI, defense & aerospace, communication, augmented reality (“AR”), virtual reality (“VR”), high-performance computing (“HPC”) and quantum computing applications. Aeluma operates an R&D/manufacturing facility at its headquarters in Goleta, California, and has developed relationships with volume fabrication foundries and packaging partners. We will continue to mature our manufacturing processes to further our commercialization traction. We have generated revenue through various customer and government contracts, including small-volume orders, engineering sample evaluations, non-recurring engineering (NRE) development efforts, and R&D projects. We will continue to perform on these various efforts, expand our business development and marketing efforts, further engage with our manufacturing partners, and continue our efforts toward volume production and commercialization.

## Our Technology

Our technology is based on heterogeneous integration of compound semiconductor materials on large-diameter substrates such as silicon. This heterogeneous integration enables the subsequent device fabrication and manufacturing in large-scale manufacturing environments that are suited to mass markets.

## Competition

There are two primary classes of image sensors currently on the market, low-cost silicon sensors for mass market applications, and high-performance compound semiconductor (e.g., indium gallium arsenide or “InGaAs”) sensors deployed primarily in specialty applications. According to Yole Development, the major suppliers of silicon complementary metal-oxide semiconductor (“CMOS”) image sensors include Sony, Samsung, Omnivision, onsemi, STMicroelectronics, Panasonic, Canon, SK Hynix, and others. According to Markets and Markets, the major suppliers of InGaAs sensors include Hamamatsu, Sumitomo, Teledyne/FLIR, Excelitas, and others. InGaAs sensors are manufactured primarily on 2- to 4-inch substrates. As an example, to manufacture 20 million sensor chips of a nominal size (i.e. chip area), approximately 425,000 3-inch wafers are required, whereas only 18,000 12-inch wafers would be required for the same volume. Aeluma aims to leverage larger diameter substrates up to 12-inch.

We believe that our technology will be able to compete effectively because we are uniquely positioned to outperform silicon CMOS image sensors while achieving a cost of manufacturing that is lower than that for traditional InGaAs sensors. Compared to silicon, InGaAs demonstrates higher detection sensitivity and a broader wavelength absorption spectrum. Silicon absorbs or detects light in the visible spectral region (400-750 nm) and partially in the near infrared (NIR) spectral region (greater than 750 nm), cutting off near 940 nm. InGaAs not only demonstrates high absorption in the NIR, but also extends well into the shortwave infrared (SWIR) spectrum (900-1700 nm), with the ability to extend to near 2500 nm. Generally speaking, 940 nm is not considered “eye-safe;” wavelengths in the SWIR are considered “eye-safe”.

We believe that we are also positioned to win on price in competing with current InGaAs sensors while having the ability to realize much larger area photodetector arrays because of our ability to manufacture on up to 12-inch substrates, whereas competing InGaAs photodetectors are manufactured on indium phosphide (InP) substrates that are typically 2 to 4 inches in size. Therefore, in addition to realizing many more sensor chips per wafer, we have the ability to realize array sizes that are larger than what is possible with traditional InGaAs, and to leverage wafer-scale integration and packaging that is available for 8- and 12-inch substrates. As a result, we believe we are positioned to manufacture our products potentially at a ten times lower cost for mass market applications and are able to scale our production to meet mass market demands at a faster rate than incumbent technologies.

In addition to photodetectors for sensors, our technology may apply to a broad range of photonic and electronic semiconductors.

Existing and potential competitors have or could have advantages such as greater name recognition, longer operating histories, broader and deeper product portfolios, larger customer bases, substantially greater financial and other resources, and larger-scale manufacturing operations. However, we believe that our products will have the potential to compete because of our unique ability to manufacture high-performance semiconductors at scale.

## Customers

Aeluma has customer engagements that involve development of wafers, delivery of engineering samples for evaluation, delivery of small volumes of chips, and R&D contracts. Aeluma’s technology is broadly applicable. Potential markets for our technology include mobile, consumer electronics, AI, defense and aerospace, automotive, AR/VR, and quantum computing. Our current strategy is to pursue partnerships with system integrators, including mobile and consumer electronics manufacturers, Tier-1 suppliers, module manufacturers, component suppliers, or semiconductor manufacturing companies. Aeluma is pursuing direct sales relationships and strategic partnerships. We have active engagements with approximately 20 prospective customers.

See “Risk Factors—Risks Relating to Our Business, Growth Prospects and Operating Results—Our customers may require our products to undergo a lengthy and expensive qualification process without any assurance of product sales.”

## Markets

Aeluma’s technology is broadly applicable and has the potential to impact across mobile and consumer electronics, AI, defense and aerospace, robotics, automotive, AR/VR, quantum computing, and other markets. According to a report by Yole Development dated June 2024, the CMOS image sensors market is projected to be \$28.6 billion by 2029. In the mobile market, Apple arguably leads in terms of deploying advanced capabilities such as facial identification and lidar sensing in their devices. Apple does not currently use our technology in any of their products. According to a press release from Apple issued May 5, 2021, Apple leverages vertical cavity surface emitting laser (VCSEL) emitters in conjunction with single-photon avalanche diode (SPAD) photodetectors for the facial identification and the lidar scanner in smartphones and tablets, and such technology “helps to deliver faster, more realistic AR experiences and improves autofocus in low-light scenes in photos and videos”. Other major smartphone suppliers include Samsung, Xiaomi, OPPO, vivo, Huawei, and realme according to Counterpoint Research. According to an estimate by Velodyne, the automotive lidar market is projected to be between \$5 billion to \$80 billion in 2030. According to Statista, the AI market is projected to be \$826 billion in 2030. The silicon photonics market is projected to be \$8 billion in 2030 according to Grand View Research. Silicon photonics is a key technology that enables optical interconnects inside data centers in support of AI infrastructure. The total addressable market for the quantum computing industry is projected to grow to \$20 billion by 2030 according to UBS. According to Yole Group,

the mobile and consumer market represented \$296 billion in semiconductor revenue in 2023, and according to DIGITIMES Asia, the global semiconductor market is projected to exceed \$1 trillion in 2030. Based on third party market research and internal assumptions, we estimate our serviceable addressable market could reach \$4.9 billion in 2030, growing at a 47% compound annual rate from \$1.0 billion in 2026.

## **Intellectual Property**

Aeluma has filed several patent applications with the United States Patent and Trademark Office (USPTO), and several patents have been issued. To date, we have approximately 30 issued and pending patents. We have filed trademarks for the name “Aeluma” and the slogan “Sensing Reimagined” with the USPTO. We maintain protection of trade secrets that include “know-how” and process recipes.

## **Our Intellectual Property Approach**

Our strategy for the protection of our proprietary technology is to seek worldwide patent protection with a focus on jurisdictions that represent significant global semiconductor markets. However, we will assess on a case-by-case basis whether it is strategically more favorable to maintain trade secret protection for our inventions and “know-how” rather than pursue patent protection. Generally, patents have a term of twenty years from the earliest priority date, assuming that all maintenance fees are paid, no portion of the patent has been terminally disclaimed, and the patent has not been invalidated. In certain jurisdictions, and in certain circumstances, patent terms can be extended or shortened.

## **Governmental & Environmental Regulations**

Our primary products are anticipated to be photonics and electronics based on high-performance semiconductors. To the extent that our products are or become subject to U.S. export controls and regulations, these regulations may limit the export of our products and technology, and provision of our services outside of the United States, or may require export authorizations, including by license, a license exception, or other appropriate government authorizations and conditions, including annual or semi-annual reporting. Export control and economic sanctions laws may also include prohibitions on the sale or supply of certain of our products to embargoed or sanctioned countries, regions, governments, persons, and entities. In addition, various countries regulate the importation of certain products through import permitting and licensing requirements, and have enacted laws that could limit our ability to distribute our products. The exportation, re-exportation, and importation of our products and technology and the provision of services, including by our partners, must comply with these laws or else we may be adversely affected, through reputational harm, government investigations, penalties, and a denial or curtailment of our ability to export our products and technology. Complying with export control and sanctions laws may be time-consuming and may result in the delay or loss of sales opportunities. Although we take precautions to prevent our products and technology from being provided in violation of such laws, our products and technology may have previously been, and could in the future be, provided inadvertently in violation of such laws, despite the precautions we take. If we are found to be in violation of U.S. sanctions or export control laws, it could result in substantial fines and penalties for us and for the individuals working for us. Export or import laws or sanctions policies are subject to rapid change and have been the subject of recent U.S. and non-U.S. government actions. Changes in export or import laws or sanctions policies, may adversely impact our operations, delay the introduction and sale of our products in international markets, or, in some cases, prevent the export or import of our products and technology to certain countries, regions, governments, persons, or entities altogether, which could adversely affect our business, financial condition and results of operations.

We seek to comply with all applicable statutory and administrative requirements concerning environmental quality. Expenditures for compliance with federal state and local environmental laws have not had, and are not expected to have, a material effect on our capital expenditures, results of operations or competitive position.

In addition, to the extent that our facilities and operations are or become subject to the plant and laboratory safety requirements of various environmental and occupational safety and health laws in the U.S., we believe we are in compliance with all such laws and regulations, and to date, those regulations have not materially restricted or impeded operations. Further, we believe our processes to be highly efficient, generating very low levels of waste and emissions. For this reason, we do not view issues surrounding climate change and any currently foreseeable related regulations as materially impacting our business and financial statements, beyond any inestimable impact on the macro-economic environment.

We are also generally subject to other industry and environmental regulations for electronic and semiconductor products such as the Restriction of Hazardous Substances Directive 2002/95/EC.

See “*Risk Factors—Risks Relating to Our Business, Growth Prospects and Operating Results—Environmental and health and safety liabilities and expenditures could materially adversely affect our results of operations and financial condition*” for additional information.

## **Manufacturing**

Our operations include R&D and manufacturing capabilities for semiconductor wafer production, quick-turn chip fabrication, rapid prototyping, test and validation. We also partner with production-scale fabrication foundries, packaging and integration companies. We expect to rely on such external resources and capabilities to scale our production capacity in support of high-volume markets.

## **Sales**

We have sold chips and wafers in relatively small volumes to customers, and have shipped samples for R&D and sampling evaluations. However, we cannot predict whether or not customers will ultimately purchase our product in large volumes.

See “*Risk Factors—Risks Relating to Our Business, Growth Prospects and Operating Results—We will depend on a limited number of customers and the loss of one or more of these customers could have a material adverse effect on our business, financial condition and results of operations.*”

## **Marketing**

Marketing activities include direct relationships with potential customers and partners. We are under nondisclosure agreements (NDA) with several current and potential customers and partners. In addition to posting information on our website, we occasionally participate in conferences and trade shows to market our technology and product offerings.

## **Employees & Human Resources**

At June 30, 2025, Aeluma had 12 full-time employees, two part-time employees, and consultants. The majority of employees work in engineering. None of our employees are represented by a labor union. We have not experienced any work stoppages, and we consider our relations with our employees to be very good. We plan to hire additional persons on an as-needed basis. On a case-by-case basis, Aeluma may offer stock options to employees for attraction and retention.

## **Sustainability**

We are committed to leveraging our technology for sustainable operations. Recognizing the profound impact of climate change on the global economy, our company, and our stakeholders, we embrace our responsibility to safeguard the planet. Our journey toward sustainability is ongoing, driven by a commitment to understand our environmental footprint and enhance our positive impact.

## Litigation

There is no material litigation, arbitration, governmental proceeding, or any other legal proceeding currently pending or known to be contemplated against us or any members of our management team in their capacity as such, and we and the members of our management team have not been subject to any such proceeding in the 10 years preceding the date hereof. We may however be involved, from time to time, in claims and lawsuits incidental to the conduct of our business in the ordinary course. We carry insurance coverage in such amounts as we believe to be reasonable under the circumstances and that may or may not cover any or all of our liabilities in respect of these matters. We do not believe that the ultimate resolution of these matters will have a material adverse impact on our consolidated financial position, cash flows or results of operations, but cannot guarantee the same.

## Corporate Information

Aeluma was incorporated in Delaware on August 21, 2020, under the name Parc Investments, Inc.; the name was changed to Aeluma, Inc. in June 2021. Our principal executive offices are located at 27 Castilian Drive, Goleta, California 93117. Our website is located at [www.aeluma.com](http://www.aeluma.com) and we make available, free of charge, on or through our website all of our periodic reports, including our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, and current reports on Form 8-K, as soon as reasonably practicable after we file such reports with the SEC. Our website and the information contained on our website is not incorporated by reference and is not a part of this registration statement.

## MANAGEMENT

### Executive Officers and Directors

The Board of Directors currently consists of five members. As per our amended and restated bylaws, our board of directors is divided into three classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the class whose terms are then expiring, to serve from the time of election and qualification until the third annual meeting following their election or until their earlier death, resignation, or removal.

The division of our Board of Directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control. See Exhibit 4.3 - "Description of Securities-Anti-Takeover Provisions" for a discussion of these and other anti-takeover provisions found in our amended and restated certificate of incorporation and amended and restated bylaws, which became effective immediately following the closing of the Merger.

A majority of the authorized number of directors constitutes a quorum of the Board of Directors for the transaction of business. The directors must be present at the meeting to constitute a quorum. However, any action required or permitted to be taken by the Board of Directors may be taken without a meeting if all members of the Board of Directors individually or collectively consent in writing to the action.

On August 4, 2025, the Company appointed Christopher Stewart as its full-time Chief Financial Officer (CFO) and Principal Accounting Officer, taking over for Mr. James Seo who was serving as Interim CFO. There are no family relationships between Mr. Stewart, Mr. Seo, and any of the Company's directors or other executive officers. There have been no transactions involving Mr. Stewart that would be required to be disclosed by Item 404(a) of Regulation S-K. The Company has entered into a standard indemnification agreement with Mr. Stewart.

The following table provides information regarding our executive officers and directors as of the date hereof:

Name	Age	Positions	Directors Class, if applicable	Expiration of Director Term
<b>Executive Officers</b>				
Jonathan Klamkin	45	Chief Executive Officer, President & Chairman	Class III	2027
Christopher Stewart	57	Chief Financial Officer		
<b>Non-Employee Directors</b>				
Craig Ensley	74	Director	Class II	2026
Steven P. DenBaars	63	Director	Class I	2025
John Paglia	57	Director	Class I	2025
Michael Byron	59	Director	Class II	2026

### Background of Officers and Directors

**Jonathan Klamkin** serves as President and Chief Executive Officer and is one of our directors. Mr. Klamkin has been the CEO and Director of Biond Photonics (now Aeluma) since February 28, 2019. He is a Professor of Electrical and Computer Engineering at the University of California, Santa Barbara (2015-present), where his group conducts pioneering research in integrated photonics and optoelectronics for communications and sensing applications. Mr. Klamkin was with BinOptics Corp. (2001-2002), a laser diode manufacturer that was acquired by Macom in 2015. Jonathan is the recipient of numerous awards including the NASA Young Faculty Award, the DARPA Young Faculty Award, and the DARPA Director's Fellowship. He has published more than 200 papers, holds several patents, and has given more than 100 invited presentations to industry, government, and the academic community. Mr. Klamkin holds a Bachelor of Science in Electrical and Computer Engineering from Cornell University and a Master of Science in Electrical and Computer Engineering and a Ph.D. in Materials from the University of California, Santa Barbara.

**Christopher Stewart** was appointed as Chief Financial Officer in August 2025. Prior to joining the Company, Mr. Stewart was the Chief Financial Officer for LeddarTech Holdings Inc., an AI-driven software company that he led through its transition to a publicly traded company. Prior to that, he was the Chief Financial Officer of Bionano Genomics, Inc. Mr. Stewart also previously held leadership roles at Maxwell Technologies (acquired by Tesla in 2019), Entropic Communications (acquired by Maxlinear in 2015), and Intel Corporation. Stewart received a Bachelor of Science in Business Administration from the University of Southern California and a Master's in Business Administration from Carnegie Mellon University.

**Steven P. DenBaars** serves as one of our directors. Steven has been on Biond Photonics' (now Aeluma's) Board of Directors since June 5, 2021. He is a Professor of Materials and Electrical and Computer Engineering at the University of California Santa Barbara (1991-pres). Prof. DenBaars has been very active in entrepreneurship, having

helped co-found several start-up companies in the field of photonics and electronics. In 1996, he Co-founded Nitres Inc., which was acquired by Cree Inc. in May 2000. In 2013, he Co-Founded SLD Laser, and helped build the company to over 150 employees before being acquired by Kyocera Corporation in 2021. In 2014, he assisted Dr. Jeffry Shealy in the founding of Akoustis Technologies Inc. (AKTS) for commercialization of RF Filters. In 2022 he joined the Board of Directors of SmartKem Ltd., a high-performance organic semiconductor company. He received the IEEE Fellow award in 2005, member of the National Academy of Engineers in 2012, and National Academy of Inventors in 2014. He has authored or co-authored over 980 technical publications, 360 conference presentations, and over 185 patents. Mr. DenBaars has a Bachelor of Science in Metallurgical Engineering from the University of Arizona and a Master of Science and a Ph.D. in Material Science and Electrical Engineering, respectively from the University of Southern California. We believe Mr. DenBaars qualifies as our director because of his entrepreneurial and start-up experience, as well as his engineering knowledge.

**Craig Ensley** serves as one of our directors and chairs compensation committee. Craig Ensley has built and led global semiconductor businesses in Analog & DSP, MEMS & Sensors, Communications (RF/Wireless, Optical, and Wired), and Consumer. Most recently he has been the CEO or President of three venture-backed companies which he repositioned to drive growth, create first profitability, and deliver superior shareholder returns. Previously, he served as SVP of a public firm where he helped lead a successful \$1 billion turnaround & restructuring. Prior, he was an executive helping build two businesses from pre-revenue to \$300-400 million in sales. Mr. Ensley serves as a Board Director of Mentium Technologies, which delivers mission-critical Artificial Intelligence (AI) capabilities to Edge Devices. He also serves on the Governing Council (aka Board of Directors) of the MEMS & Sensors Industry Group, the WW supplier ecosystem. He is an active investor with the Santa Barbara Angel Investor Alliance and an advisor at the Silicon Catalyst incubator. Previously, Mr. Ensley was CEO of Atomica (formerly IMT), where he and the team grew it to become the largest MEMS & Sensor manufacturing foundry in the U.S. Prior to Atomica, he was CEO of DisplayLink, creating an enterprise video networking firm with global leadership. He was President of Peregrine, which built high-volume RF & Wireless devices leading the world's transitions to 3G & 4G wireless. Peregrine invented high volume SOI (Silicon on Insulator) process technology, and took over markets previously served by GaAs. Mr. Ensley's earlier roles were leading strategy, development, and marketing. As SVP, he was on the team to restructure Cirrus Logic from massive losses to profitability and growth. He previously helped start Crystal Semiconductor, which became the world's highest growth analog & mixed signal DSP company. At Rockwell International, Mr. Ensley started and built the communications semiconductor business, which subsequently spun out as 3 public companies: Conexant, Mindspeed, and Jazz. He served on the Boards of Directors of the Consumer Electronics Association Home Networking Division and Audio Division, and the KLRU Austin PBS Television Station. Mr. Ensley holds a Master of Business Administration from Stanford University. He also holds a Bachelor of Science in Applied Physics and a Bachelor of Arts in Economics, both from the University of California at San Diego. We believe Mr. Ensley qualifies as our director because of his entrepreneurial and start-up experience, as well as his engineering knowledge.

**John Paglia** serves as one of our directors and chairs the audit committee. Mr. Paglia is also an independent board director and audit committee chair for Simulations Plus, Inc. (NASDAQ: SLP), and an advisor to venture capital firms and startup companies. After 25 years as a faculty member with Pepperdine University's Graziadio School of Business, serving in a variety of academic and leadership roles, John retired in July 2025 with the honorary title of Professor Emeritus of Finance. He also served as a consultant to the Library of Congress and the U.S. Congress, where he testified as an expert on the Small Business Administration's private equity and venture capital program. John is a recipient of several prestigious industry awards for his work on the financing and capital markets. Mr. Paglia holds a Ph.D. in Business Administration (Finance), an MBA, a B.S. in Finance, and is a Certified Public Accountant, Chartered Financial Analyst, and NACD Directorship Certified™. We believe his knowledge of technical accounting issues and business experience qualify him as an expert in financial matters and as a qualified candidate for the Board.

**Michael Byron** serves as one of our directors. Mr. Byron retired as Vice President of Finance Operations & Systems at NVIDIA in December 2024. He joined NVIDIA in 2002 and held various finance leadership positions over 22 years. Before serving as Vice President of Finance Operations & Systems he served as Vice President & Chief Accounting Officer from 2011 to 2019. Prior to NVIDIA, Mr. Byron held finance and accounting roles at public technology companies and spent eight years as an auditor at Deloitte. He holds a Bachelor's degree in Business Economics from UC Santa Barbara and has been a Certified Public Accountant since 1990. In addition to his corporate experience, Mr. Byron serves in various volunteer roles at UC Santa Barbara, including as a Trustee of the UC Santa Barbara Foundation and as an adviser to the Dean's Investment Group. The Board believes Mr. Byron is qualified to be a director because of his knowledge of technical accounting, compliance issues, and business experience.

### Corporate Social Responsibility

We believe that social responsibility is essential for a healthy and equitable corporate culture; one that balances the interests of its various worldwide stakeholders, including employees, shareholders, and our potential partners and customers. We are committed to sound corporate citizenship in the way we manage our people, our business and our impact on society and the environment. Furthermore, we acknowledge our responsibility to ensure our products will be designed, developed, and supplied in an environmentally safe and sound manner. We believe that we obey and comply with all laws and regulations that apply to us in the communities where we do business. Last but not least, we value our shareholders' governance view and seek to solicit feedback from our shareholders on a regular basis relating to matters that are important to them, including the compensation of our executive officers and directors and environmental, social and governance ("ESG") topics.

### Involvement in Certain Legal Proceedings

To the best of the Company's knowledge, none of the following events occurred during the past ten years that are material to an evaluation of the ability or integrity of any of our executive officers, directors, Director Nominees or promoters:

- (1) A petition under the Federal bankruptcy laws or any state insolvency law was filed by or against, or a receiver, fiscal agent or similar officer was appointed by a court for the business or property of such person, or any partnership in which he was a general partner at or within two years before the time of such filing, or any corporation or business association of which he was an executive officer at or within two years before the time of such filing;
- (2) Convicted in a criminal proceeding or is a named subject of a pending criminal proceeding (excluding traffic violations and other minor offenses);
- (3) Subject of any order, judgment, or decree, not subsequently reversed, suspended, or vacated, of any court of competent jurisdiction, permanently or temporarily enjoining him from, or otherwise limiting, the following activities:
  - (i) Acting as a futures commission merchant, introducing broker, commodity trading advisor, commodity pool operator, floor broker, leverage transaction merchant, any other person regulated by the Commodity Futures Trading Commission, or an associated person of any of the foregoing, or as an investment adviser, underwriter, broker or dealer in securities, or as an affiliated person, director or employee of any investment company, bank, savings and loan association or insurance company, or engaging in or continuing any conduct or practice in connection with such activity;
  - (ii) Engaging in any type of business practice; or
  - (iii) Engaging in any activity in connection with the purchase or sale of any security or commodity or in connection with any violation of Federal or State securities laws or Federal commodities laws;
- (4) Subject of any order, judgment or decree, not subsequently reversed, suspended or vacated, of any Federal or State authority barring, suspending or otherwise limiting for more than 60 days the right of such person to engage in any activity described by such activity;

(5) Found by a court of competent jurisdiction in a civil action or by the Commission to have violated any Federal or State securities law, and the judgment in such civil action or finding by the Commission has not been subsequently reversed, suspended, or vacated;

(6) Found by a court of competent jurisdiction in a civil action or by the Commodity Futures Trading Commission to have violated any Federal commodities law, and the judgment in such civil action or finding by the Commodity Futures Trading Commission has not been subsequently reversed, suspended or vacated;

(7) Subject of, or a party to, any Federal or State judicial or administrative order, judgment, decree, or finding, not subsequently reversed, suspended, or vacated, relating to an alleged violation of:

(i) Any Federal or State securities or commodities law or regulation; or

(ii) Any law or regulation respecting financial institutions or insurance companies including, but not limited to, a temporary or permanent injunction, order of disgorgement or restitution, civil money penalty or temporary or permanent cease-and-desist order, or removal or prohibition order; or

(iii) Any law or regulation prohibiting mail or wire fraud or fraud in connection with any business entity; or

(8) Subject of, or a party to, any sanction or order, not subsequently reversed, suspended or vacated, of any self-regulatory organization (as defined in Section 3(a)(26) of the Exchange Act (15 U.S.C. 78c(a)(26)), any registered entity (as defined in Section 1(a)(29) of the Commodity Exchange Act (7 U.S.C. 1(a)(29))), or any equivalent exchange, association, entity or organization that has disciplinary authority over its members or persons associated with a member.

#### **Director Independence and Board Committees**

As of the date hereof, we currently have four independent directors on our board and are operating with three board committees.

Our board of directors shall determine which directors qualify as “independent” directors in accordance with listing requirements of The NASDAQ Stock Market, or NASDAQ. The NASDAQ independence definition includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director nor any of his family members has engaged in various types of business dealings with us.

Our Board of Directors has determined that Mr. DenBaars, Mr. Paglia, Mr. Ensley, and Mr. Byron shall be considered independent directors in accordance with the definition of independence applied by the NASDAQ Stock Market.

We have established three standing committees: an audit committee in compliance with Section 3(a)(58)(A) of the Exchange Act, a compensation committee and a nominating and governance committee. We will add independent directors, as needed, to each committee at the necessary time as per the applicable exchange’s rules.

*Audit committee.* Under the national exchange listing standards and applicable SEC rules, we are required to have at least three members of the audit committee, all of whom must be independent, subject to certain phase-in provisions. At this time, Mr. Ensley, Mr. Paglia and Mr. Byron meet the independent director standard under national exchange listing standards and under Rule 10-A-3(b)(1) of the Exchange Act. Mr. Paglia was selected to serve as chairman of our audit committee. Each member of the audit committee is financially literate, and our Board has determined that Mr. Paglia qualifies as an “audit committee financial expert” as defined in applicable SEC rules.

We adopted an audit committee charter, which will detail the purpose and principal functions of the audit committee, including:

- appoint, compensate, and oversee the work of any registered public accounting firm employed by us;
- resolve any disagreements between management and the auditor regarding financial reporting;
- pre-approve all auditing and non-audit services;
- retain independent counsel, accountants, or others to advise the audit committee or assist in the conduct of an investigation;
- seek any information it requires from employees - all of whom are directed to cooperate with the audit committee’s requests - or external parties;
- meet with our officers, external auditors, or outside counsel, as necessary; and
- oversee that management has established and maintained processes to assure our compliance with all applicable laws, regulations, and corporate policy.

*Compensation Committee.* The compensation committee consists of Mr. Ensley (Chair), Mr. Paglia, Mr. DenBaars, and Mr. Byron. Under the national exchange listing standards and applicable SEC rules, we are required to have at least two members of the compensation committee, all of whom must be independent, subject to certain phase-in provisions. Mr. Ensley, Mr. Paglia, Mr. DenBaars and Mr. Byron meet the independent director standard under national exchange listing standards applicable to members of the compensation committee.

We adopted a compensation committee charter, which details the purpose and responsibility of the compensation committee, including:

- discharge the responsibilities of the Board relating to compensation of our directors, executive officers, and key employees;
- assist the Board in establishing appropriate incentive compensation and equity-based plans and to administer such plans;
- oversee the annual process of evaluation of the performance of our management; and
- perform such other duties and responsibilities as enumerated in and consistent with compensation committee’s charter.

The charter will permit the committee to retain or receive advice from a compensation consultant and will outline certain requirements to ensure the consultants, independence, or certain circumstances under which the consultant need not be independent. However, as of the date hereof, the Company has not retained such a consultant.

*Nominating and Governance Committee.* The nominating and governance committee consists of Mr. DenBaars (Chair), Mr. Ensley and Mr. Paglia. We adopted a nominating and governance committee charter, which details the purpose and responsibilities of the nominating and governance committee, including:



- assist the Board by identifying qualified candidates for director nominees, and to recommend to the board of directors the director nominees for the next annual meeting of stockholders;
- lead the Board in its annual review of its performance;
- recommend to the board director nominees for each committee of the Board; and
- develop and recommend to the Board corporate governance guidelines applicable to us.

## Meetings of the Board of Directors

During the fiscal year ended June 30, 2025, Board meetings were held on September 27, 2024, November 6, 2024, February 6, 2025 and May 6, 2025. The Board also transacted business by unanimous written consent throughout the year.

## Family Relationships

There are no family relationships by between or among the members of the Board or other executive officers of the Company.

## Indemnification

Our articles of incorporation and bylaws include provisions limiting the liability of directors and officers and indemnifying them under certain circumstances. See “Indemnification Agreements” for further information. We intend to secure directors’ and officers’ liability insurance following the completion of the Offering.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or persons controlling the Company pursuant to Delaware law, we are informed that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

## Board Leadership Structure and Role in Risk Oversight

Mr. Klamkin serves as our Chief Executive Officer and our Chairman. Although the roles of our Chief Executive Officer and Chairman of our board of directors are currently performed by the same person, we do not have a policy regarding the separation of these roles, as our board of directors believes that it is in the best interests of the Company and our shareholders to make that determination from time to time based upon the position and direction of the Company and the membership of our board of directors.

Our board of directors has determined that our leadership structure is appropriate for the Company and our shareholders as it helps to ensure that the board of directors and management act with a common purpose and provides a single, clear chain of command to execute our strategic initiatives and business plans. In addition, our board of directors believes that a combined role of Chief Executive Officer and Chairman is better positioned to act as a bridge between management and our board of directors, facilitating the regular flow of information. Our board of directors also believes that it is advantageous to have a chairman with extensive knowledge of our industry.

## Code of Business Conduct and Ethics

Our Board of Directors adopted a Code of Ethics, a copy of which is attached herein as Exhibit 14.1, that applies to all of directors and employees, pursuant to rules described in Regulation S-K. The code provides fundamental ethical principles to which these individuals are expected to adhere to and will operate as a tool to help our directors, officers and employees understand the high ethical standards required for employment by, or association with, our Company. This Code constitutes a “code of ethics” as defined by the rules of the SEC. You can review the Code of Ethics by accessing our public filings at the SEC’s web site at [www.sec.gov](http://www.sec.gov). Copies of the code can also be obtained from our website, [www.aeluma.com](http://www.aeluma.com). Any amendments to, or waivers from, a provision of our code of ethics that applies to any of our executive officers will be posted on our website in accordance with the rules of the SEC.

## Item 11. Executive Compensation.

### Executive Compensation

As an “emerging growth company” as defined in the JOBS Act and a smaller reporting company we are not required to include a Compensation Discussion and Analysis section and have elected to comply with the scaled disclosure requirements applicable to emerging growth companies and smaller reporting companies.

### Summary Compensation Table

The following summary compensation table sets forth all compensation awarded to, earned by, or paid to the named executive officer during the fiscal years ended June 30, 2025 and 2024 in all capacities for the accounts of our executive, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO):

Name and principal position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (\$)(4)	Non-Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
Jonathan Klamkin,	2025	\$ 271,667(1)	\$ 163,800	-	\$ 1,427,360	-	-	-	\$ 1,862,827
CEO and Director	2024	\$ 255,000(1)	-	-	-	-	-	-	255,000
James Seo	2025	\$ 159,000(2)(3)	-	-	\$ 99,345	-	-	-	\$ 258,345
Interim CFO	2024	\$ 152,500	-	-	-	-	-	-	\$ 152,500

(1) On January 27, 2025, the Board of Directors approved an increase in Mr. Klamkin’s annual salary to \$295,000. On January 10, 2024, The Board of Directors approved issuing him 220,000 options with a 4-year vesting schedule, with an exercise price of \$7.80 per share, subject to continued service as of each such vesting date.

(2) On January 1, 2025, The Board of Directors approved issuing Mr. Seo 15,000 options with a 4-year vesting schedule, with an exercise price of \$8.86 per share, subject to continued service as of each such vesting date.

(3) Mr. Seo was Interim Financial Officer from March 18, 2025 to August 4, 2025.

(4) The dollar amounts in this column reflect the grant date fair value of stock option awards granted during the fiscal year ended June 30, 2025. These amounts have been calculated in accordance with FASB ASC Topic 718.

#### Employment and Change in Control Agreements

We have an employment agreement in place with our Chief Financial Officer, Christopher Stewart, pursuant to which he was granted 110,000 stock options and 55,000 restricted stock units ("RSUs"). The stock options have an exercise price of \$21.04, with 25% of the stock options vesting on the twelve (12) month anniversary of Mr. Stewart's employment with the Company. The balance of the stock options will vest in equal monthly increments, on each monthly anniversary of Mr. Stewart's employment start date with the Company, over the next thirty-six (36) months. The stock options expire on the 10-year anniversary of their vesting date. 25% of the shares underlying the RSUs will vest at the end of the fiscal quarter following the twelve (12) month anniversary of Mr. Stewart's employment start date with the Company, with a pro-rated amount for any partial quarter preceding the twelve (12) month anniversary. The balance of the RSUs will vest in equal quarterly increments, with a pro-rated amount for any partial final quarter. Each restricted stock unit represents the contingent right to receive, at settlement, one share of common stock. Additionally, as per his employment agreement, if Mr. Stewart is terminated by the Company without cause or by Mr. Stewart for good reason, within a period of (i) ninety (90) days before, or (ii) twelve (12) months following, a change of control, any unvested options and RSUs held by Mr. Stewart pursuant to the Company's 2021 Stock Incentive Plan (the "Plan") shall vest and become immediately exercisable subject to and in accordance with the Plan and the relevant grant agreement(s). In the case of the options, such options shall be exercisable within the earlier of ninety (90) days after the termination date and the expiry date of the options set forth in the grant agreement.

#### Outstanding Equity Awards at Fiscal Year End

The following table presents information regarding certain outstanding shares held by each of our named executive officer as of June 30, 2025. These shares were converted into shares of our common stock in connection with the Merger, and the table below reflects all outstanding shares as of June 30, 2025 as if they had been granted by us.

#### Outstanding Equity Awards at June 30, 2025

Stock Options						Stock Awards			
Name	Number of Securities Underlying Unexercised Options (#)	Number of Securities Underlying Unexercised Options (#)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#)	Option Exercise Prices (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Share or Units of Stock That Have Not Vested (\$)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Rights That Have Not Been Issued (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Rights That Have Not Been Issued (\$)
Jonathan Klamkin <sup>(1)</sup>	62,500	37,500	-	2.10	11/30/2032	-	-	-	-
	27,499	192,501	-	7.80	1/10/2035	-	-	-	-
James Seo <sup>(2)</sup>	19,999	20,001		3.00	5/15/2033				
	1,875	13,125	-	8.86	1/1/2035	-	-	-	

(1) On November 30, 2022, we granted Mr. Klamkin a stock option to purchase 100,000 shares of our common stock, vesting in equal quarterly installments over four years, subject to his continued service on each vesting date. On January 10, 2025, we granted him a stock option to purchase 220,000 shares of our common stock, vesting in equal monthly installments over four years, also subject to his continued service on each vesting date.

(2) On May 15, 2023, we granted Mr. Seo a stock option to purchase 40,000 shares of our common stock. Twenty-five percent of the options will vest after twelve months of continuous employment from the grant date, with the remaining shares vesting in equal monthly installments over the following three years, subject to his continued service on each applicable vesting date. Additionally, on January 1, 2025, we granted him a stock option to purchase 15,000 shares of our common stock, vesting in equal monthly installments over four years, also subject to his continued service on each vesting date.

#### Compensation Paid to Directors

The following table provides a summary of compensation paid to directors, who are not also executive officers, during the fiscal year ended June 30, 2025. The only director who is also an executive director is Mr. Klamkin, whose compensation is included in the Summary Compensation table above.

Director	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards \$(1)(2)	All Other Compensation (\$)	Total (\$)
Steven P. DenBaars	-	-	534,950	-	534,950
Craig Ensley	-	-	542,621	-	542,621
John Paglia	-	-	555,813	-	555,813
Michael Byron	-	-	233,336(3)	-	233,336

(1) The dollar amounts in this column reflect the grant date fair value of stock option awards granted during the fiscal year ended June 30, 2025. These amounts have been calculated in accordance with FASB Accounting Standards Codification Topic 718.

(2) On January 10, 2024, we granted stock options to Mr. DenBaars, Mr. Ensley and Mr. Paglia to purchase 84,663, 85,885 and 87,973 shares, respectively, of our common stock at an exercise price of \$7.80, subject to their continued service through each such applicable vesting date. Twenty-five percent of each grant will vest February 28, 2025, with the remaining shares vesting in equal installments on May 31, August 31 and November 30, 2025.

- (3) On February 10, 2025, we entered into an independent director agreement with Mr. Byron, pursuant to which we issued him 45,833 stock options at an exercise price of \$5.93 per share and provided him with standard indemnification. The terms of the option grants are as follows: 833 of the stock options shall vest on February 28, 2025, with the remaining 15,000 shares vesting in equal installments on May 31, August 31 and November 30, 2025.

#### Pension, Retirement or Similar Benefit Plans

With the exception of the executive officers who are eligible for participation in the company 401(k) plan, there are currently no arrangements or plans in which we provide pension, retirement or similar benefits for directors or executive officers. Cash or non-cash compensation may be paid to our executive officers, including stock options, at the discretion of the board of directors or a committee thereof.

#### SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our common stock as of the date hereof (i) each person (or group of affiliated persons) who is known by us to own more than five percent (5%) of the outstanding shares of our Common Stock, (ii) each director, executive officer and director nominee, and (iii) all of our directors, executive officers and director nominees as a group.

Beneficial ownership is determined in accordance with SEC rules and generally includes voting or investment power with respect to securities. For purposes of this table, a person or group of persons is deemed to have “beneficial ownership” of any shares of common stock that such person has the right to acquire within 60 days of the date of the respective table. For purposes of computing the percentage of outstanding shares of our common stock held by each person or group of persons named above, any shares that such person or persons has the right to acquire within 60 days of the date of the respective table is deemed to be outstanding for such person but is not deemed to be outstanding for the purpose of computing the percentage ownership of any other person. The inclusion herein of any shares listed as beneficially owned does not constitute an admission of beneficial ownership.

Except as otherwise indicated, the persons listed below have sole voting and investment power with respect to all shares of our common stock owned by them, except to the extent that power may be shared with a spouse.

The percentage of shares beneficially owned is computed on the basis of 17,851,863 shares of common stock outstanding as of October 2, 2025. Shares of common stock that a person has the right to acquire within 60 days of October 2, 2025, are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers as a group. Unless otherwise indicated, the address of each beneficial owner in the table below is c/o Aeluma, 27 Castilian Drive, Goleta, California 93117.

	Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Owned
<b>Directors and Named Executive Officers</b>		
Jonathan Klamkin, CEO and Director	1,611,067(1)	9.0%
Christopher Stewart, CFO	-	-
Steven P. DenBaars, Director	535,913(2)	3.0%
Craig Ensley, Director	146,556(3)	*
John Paglia, Director	282,511(4)	1.7%
Michael Byron, Director	49,486(5)	*
All directors and executive officers as a group (6 persons)	2,625,533	14.7%
<b>5% Stockholders</b>		
Mark Tompkins	2,806,753	15.7%
Lee McCarthy	977,425	5.5%

\* less than 1%.

- (1) Represents 1,479,398 shares held by Mr. Klamkin, and 116,252 shares that vested and 15,417 shares that shall vest within the next 60 days pursuant to the terms of his stock options agreement through the date hereof.
- (2) Represents 410,088 shares held by Mr. DenBaars and 106,776 shares that vested and 19,049 shares that shall vest within the next 60 days pursuant to his stock options and director agreement through the date hereof.
- (3) Represents 16,667 shares held by Mr. Ensley and 108,418 shares that vested and 21,471 shares that shall vest within the next 60 days pursuant to his stock options and director agreement through the date hereof.
- (4) Represents 12,500 shares held by Mr. Paglia, 248,018 shares that vested and 21,993 shares that shall vest within the next 60 days pursuant to his stock options and director agreement through the date hereof.
- (5) Represents 30,833 shares that vested and 18,653 shares that shall vest within the next 60 days pursuant to Mr. Byron’s stock options and director agreement through the date hereof.

#### RELATED PARTY TRANSACTIONS OF DIRECTORS AND EXECUTIVE OFFICERS

We describe below transactions since July 1, 2024, in which the amounts involved exceeded or will exceed the lesser of \$120,000 or 1% of the average of our total assets at year-end for the last two completed fiscal years and any of our directors, executive officers, or beneficial holders of more than 5% had or will have a direct or indirect material interest. Other than as described below, there have not been transactions to which we have been a party other than compensation arrangements, which are described under “Executive Compensation.”

## Indemnification Agreements

We maintain indemnification agreements with each of our current executive officers. The indemnification agreements and our restated bylaws will require us to indemnify our directors to the fullest extent not prohibited by Delaware General Corporation Law. Subject to very limited exceptions, our restated bylaws will also require us to advance expenses incurred by our directors and officers.

## DESCRIPTION OF SECURITIES

The following description summarizes the most important terms of our capital stock and Offering. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our restated certificate of incorporation and restated bylaws, which are included as exhibits hereto, and to the applicable provisions of Delaware law.

We have authorized capital stock consisting of 50,000,000 shares of common stock and 10,000,000 shares of preferred stock. Except as otherwise provided in the certificate of designation of any series of preferred stock we may issue, the number of authorized shares of common stock or preferred stock may from time to time be increased or decreased (but not below the number of shares of such class outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of our capital stock.

As of the date of this Registration Statement, we had 17,847,887 shares of common stock issued and outstanding and no shares of preferred stock issued and outstanding. Unless stated otherwise, the following discussion summarizes the term and provisions of our restated certificate of incorporation and our restated bylaws.

### Common Stock

#### *Dividend Rights*

Subject to preferences that may apply to any shares of redeemable convertible preferred stock outstanding at the time, the holders of our common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine.

#### *Voting Rights*

Holders of our common stock are entitled to one vote for each share of common stock held on all matters submitted to a vote of stockholders. We have not provided for cumulative voting for the election of directors in our restated certificate of incorporation. Except as otherwise required by law, the restated and amended certificate of incorporation, the restated and amended bylaws or the rules of any applicable stock exchange, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at a meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the amended and restated certificate of incorporation or the amended and restated bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Accordingly, even if a director receives 1% of the votes cast, he or she will be elected assuming there is no opposition candidate; where there is an opposition candidate, the candidate receiving the most votes wins, without regard to whether those votes constitute a majority of the votes at the meeting. Our restated bylaws establish a classified board of directors, to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

#### *No Preemptive or Similar Rights*

Our common stock is not entitled to preemptive rights, and is not subject to redemption or sinking fund provisions.

#### *Right to Receive Liquidation Distributions*

Upon our liquidation, dissolution, or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock and any participating redeemable convertible preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of redeemable convertible preferred stock.

### Preferred Stock

Our board of directors will be authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences, and rights of the shares of each series and any of its qualifications, limitations, or restrictions, in each case without further vote or action by our stockholders. Our board of directors can also increase or decrease the number of shares of any series of preferred stock, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring, or preventing a change in our control and might adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock. We have no current plan to issue any shares of preferred stock.

## Warrants and Options

As of the date hereof, other than the Placement Agent Warrants described below, we have 533,835 warrants outstanding and 1,708,428 stock options outstanding. We are not registering shares of common stock underlying any options in this registration statement.

#### *Placement Agent Warrants*

As of the date of this prospectus, we have Placement Agent Warrants outstanding that allow the placement agent and its assigns to purchase up to a total of 445,653 shares of our common stock. The following is a summary of material terms of the Placement Agent Warrants; such summary does not purport to be a complete description of the terms of the Placement Agent Warrants and you are urged to read the warrant agreement in its entirety.

Upon closing of the Offering, we issued Placement Agent Warrants to purchase up to 445,653 shares of common stock. The exercise price of the Placement Agent Warrants is \$2.00 per share, subject to adjustment as set forth in the warrant agreement, and are also exercisable on a cashless basis. The Placement Agent Warrants are exercisable, at any time, and from time to time, in whole or in part, within five years commencing on or after the closing of this Offering; however, the shares underlying the Placement Agent Warrants may not be sold or transferred for a period of six months from the date on which this Offering closes.

## Registration Rights Agreement

In connection with the Merger and the Offering, we have entered into a registration rights agreement (the “Registration Rights Agreement”), pursuant to which we have agreed that promptly, but no later than 60 calendar days from the final closing of the Offering, we will file this registration statement with the SEC (the “Registration Statement”), covering (i) the shares of our common stock issued in the Offering; (ii) the 50,000 shares issued to the Placement agent and the shares of common stock issuable upon exercise of the Placement Agent Warrants, (iii) the shares of our common stock issued as a result of the Share Conversion; and (iv) 2,500,000 shares of our common stock held by our stockholders prior to the Merger ((i)-(iv) collectively, the “Registrable Shares”). This Registration Statement was declared effective on January 19, 2022, which was within the contractually agreed time frame to have it declared effective.

Subject to customary exceptions, if any Registration Event occurs, we will make payments to each holder of Registrable Shares as monetary penalties at a rate equal to 12% per annum of the total value of Registrable Shares held or purchased by such holder and affected during the period, based on the Offering Price; provided that the maximum amount of monetary penalties paid by us will not exceed 8% of such total value. No monetary penalties will accrue with respect to (1) any Registrable Shares removed from the Registration Statement in response to a Cutback Comment, (2) any Registrable Shares that may be resold without manner of sale restrictions, current information requirements, volume limitations or other limitations under Rule 144 or another exemption from registration under the Securities Act, (3) any Registrable Shares excluded from a Registration Statement because a holder fails to provide information concerning the holder and the manner of distribution of the holder’s Registrable Shares that is required by SEC rules to be disclosed, and (4) any circumstance in which the SEC does not declare the Registration Statement effective on or before 150 days after the final closing of the Offering, and the reason for the SEC’s determination is that (a) the offering of any of the Registrable Shares constitutes a primary offering of securities by the Company, (b) Rule 415 of the Securities Act may not be relied upon for the registration of the resale of any or all of the Registrable Shares, and/or (c) a holder of any Registrable Shares must be named as an underwriter and such holder does not consent to be so named in the Registration Statement. Notwithstanding the previous sentence, if the SEC does not declare the Registration Statement effective before the Registration Effectiveness Date, in certain circumstances we may still be liable for liquidated damages if we do not continue to use our commercially reasonable efforts at the first opportunity that is permitted by the SEC to register for resale all such Registrable Securities, using one or more registration statements that we are then entitled to use. Any cutback resulting from a Cutback Comment shall be allocated to the Registrable Shares pro rata based on the total number of such shares held by or issuable to each holder thereof.

We must use commercially reasonable efforts to keep the Registration Statement effective for three years from the date it is declared effective by the SEC or until the date on which all Registrable Shares have been transferred other than to certain enumerated permitted assignees under the Registration Rights Agreement.

We will pay all expenses in connection with the registration obligations provided in the Registration Rights Agreement, including, without limitation, all registration, filing, and stock exchange fees, printing expenses, all fees and expenses of complying with applicable securities laws, the fees and disbursements of our counsel and of our independent accountants, and the reasonable fees and disbursements of a single counsel to the holders of the Registrable Securities, not to exceed \$35,000. Each holder will be responsible for its own sales commissions, if any, transfer taxes and the expenses of any other attorney or advisor such holder decides to employ.

All descriptions of the Registration Rights Agreement herein are qualified in their entirety by reference to the text thereof filed as Exhibit 10.5 hereto and incorporated herein by reference.

## Anti-Takeover Provisions

The provisions of the DGCL, our restated certificate of incorporation, and our restated bylaws following the Offering could have the effect of delaying, deferring, or discouraging another person from acquiring control of our Company. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and encourage persons seeking to acquire control of our Company to first negotiate with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms. See the section, “*Restated Certificate of Incorporation and Restated Bylaw Provisions*” below.

### Section 203 of the DGCL

As per our amended and restated certificate of incorporation, we are not subject to the provisions of Section 203 of the DGCL regulating corporate takeovers. As per our amended and restated certificate of incorporation, the Company shall not engage in any business combination (as defined in the amended and restated certificate of incorporation), at any point in time at which the Common Stock is registered under Section 12(b) or 12(g) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), with any interested stockholder (as defined amended and restated certificate of incorporation) for a period of three (3) years following the time that such stockholder became an interested stockholder, except under certain circumstances, such as if the board of directors approved the transaction before the stockholder became an interested stockholder, if at least 66 and 2/3 of the Company’s outstanding voting stock voted in favor (not by written consent) of the combination or if the stockholder, at the time it consummated the transaction pursuant to which it became an interested stockholder, owned at least 85% of the Company’s voting stock (not including stock held by officers, directors or employee stock plans).

The amended and restated certificate of incorporation includes the definition of the terms used in this section, including that an interested stockholder is any person (other than the Company and any direct or indirect majority-owned subsidiary of the Company) that (i) is the owner of 15% or more of the outstanding voting stock of the Company, or (ii) is an affiliate or associate of the Company and was the owner of 15% or more of the outstanding voting stock of the Company at any time within the 3-year period immediately prior to the date on which it is sought to be determined whether such person is an interested stockholder, and the affiliates and associates of such person; provided, however, that the term “interested stockholder” shall not include any person whose ownership of shares in excess of the 15% limitation set forth herein is the result of action taken solely by the Company; provided that such person shall be an interested stockholder if thereafter such person acquires additional shares of voting stock of the Company, except as a result of further corporate action not caused, directly or indirectly, by such person. For the purpose of determining whether a person is an interested stockholder, the voting stock of the Company deemed to be outstanding shall include stock deemed to be owned by the person through application of the definition of “owner” included in the amended and restated certificate of incorporation, but shall not include any other unissued stock of such Company which may be issuable pursuant to any agreement, arrangement or understanding, or upon exercise of conversion rights, warrants or options, or otherwise.

## Transfer Agent

The transfer agent and registrar for our common stock will be VStock Transfer, LLC. The transfer agent’s address is 18 Lafayette Place, Woodmere, New York 11598, and its telephone number is (212) 828-8436.

## SELLING STOCKHOLDERS

This prospectus relates to the offering and sale, from time to time, of up to 11,010,002 shares of our common stock held by the stockholders named in the table below. We are registering the shares to permit the selling stockholders and their pledgees, donees, transferees and other successors-in-interest that receive their shares from a selling stockholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus to resell the shares when and as they deem appropriate in the manner described in the “Plan of Distribution.” As of October 2, 2025, there were 17,851,863 shares of Common Stock issued and outstanding.

The following table sets forth:

- the name of the selling stockholders,
- the number of shares of our Common Stock that the selling stockholders beneficially owned prior to the offering for resale of the shares under this prospectus,
- the maximum number of shares of our Common Stock that may be offered for resale for the account of the selling stockholders under this prospectus, and
- the number and percentage of shares of our Common Stock beneficially owned by the selling stockholders after the offering of the shares (assuming all of the offered shares are sold by the selling stockholders).

Unless set forth below, the selling stockholders received their securities in a private transaction with the Company.

Each selling stockholder may offer for sale all or part of the Shares from time to time. The table below assumes that the selling stockholders will sell all of the Shares offered for sale. A selling stockholder is under no obligation, however, to sell any Shares pursuant to this prospectus.

<b>Name of selling stockholder</b>	<b>Shares of Common Stock Beneficially Owned Prior To offering</b>	<b>Maximum Number of Shares of Common Stock To Be Sold</b>	<b>Number of Shares of Common Stock Owned After offering (1)</b>	<b>Percentage Ownership After offering (2)</b>
Mark N. Tompkins (3)	2,632,500	2,632,500	0	*
Jonathan Klamkin (4)	1,626,995	1,626,995	0	*
Lee McCarthy (5)	1,626,995	1,626,995	0	*
Steven DenBaars (6)	376,755	376,755	0	*
Jeffrey Shealy (7)	376,755	376,755	0	*
Richard Ogawa (8)	335,768	335,768	0	*
Douglas Oakley (9)	25,983	25,983	0	*
Shuji Nakamura (10)	130,751	130,751	0	*
Northlea Partners LLLP (11)	15,000	15,000	0	*
Jan Arnett (12)	100,000	100,000	0	*
H. Investments (13)	50,000	50,000	0	*
Anthony Barkett (14)	25,000	25,000	0	*
Due Mondt Investments (15)	15,000	15,000	0	*
Joan L Bonanno TTE U/A DTD 12/05/2002 (16)	62,500	62,500	0	*
Raymond J Bonanno TTE U/A DTD 12/05/2002 (17)	62,500	62,500	0	*
Sage Brakeman LLC (18)	100,000	100,000	0	*
Richard David (19)	12,500	12,500	0	*
Ramrakhi Investments Limited (20)	75,000	75,000	0	*
DeLoach LS Investments LLC (21)	25,000	25,000	0	*
James L. Dritz (22)	12,500	12,500	0	*
EE Holdings (23)	350,000	350,000	0	*
Frederick Epstein (24)	12,500	12,500	0	*
Brian & Andrea Fischhoff, JWTROS (25)	12,500	12,500	0	*
Andrew & Melissa Fisher (26)	25,000	25,000	0	*
Kirby Frank (27)	20,000	20,000	0	*
Gubbay Investments, LLC (28)	20,000	20,000	0	*
Deccan Pacific Ventures (29)	12,500	12,500	0	*
Clay Lebar (30)	25,000	25,000	0	*
Carmine Lekstutis (31)	25,000	25,000	0	*
Joel Levine (32)	25,000	25,000	0	*
Ethan Lowell (33)	15,000	15,000	0	*
Eliezer Lubitch (34)	25,000	25,000	0	*
Joseph Manzi (35)	25,000	25,000	0	*

<b>Name of selling stockholder</b>	<b>Shares of Common Stock Beneficially Owned Prior To offering</b>	<b>Maximum Number of Shares of Common Stock To Be Sold</b>	<b>Number of Shares of Common Stock Owned After offering (1)</b>	<b>Percentage Ownership After offering (2)</b>
Jeff McMahon (36)	75,000	75,000	0	*
Daniel Michael (37)	25,000	25,000	0	*
Shahzad & Betty Mozzanen, JTWROS (38)	30,000	30,000	0	*
Stephen Mut (39)	25,000	25,000	0	*
David Ngo (40)	50,000	50,000	0	*
John Oakley (41)	12,500	12,500	0	*
OHB Family Trust (42)	25,000	25,000	0	*
Gilbert S. Omenn Trust (43)	100,000	100,000	0	*
John Paglia (44)	12,500	12,500	0	*

Basil Palmeri (45)	15,000	15,000	0	*
Venice Squared Holdings, LLC (46)	250,000	250,000	0	*
John Pescitelli (47)	12,500	12,500	0	*
The Del Mar Consulting Group, Inc. Retirement Plan Trust (48)	65,000	65,000	0	*
David Rarey (49)	12,500	12,500	0	*
Raring Family Trust (50)	32,500	32,500	0	*
Saiyed Atiq Raza and Nandini Saraiya 2012 Revocable Trust DTD 11/26/12 (51)	25,000	25,000	0	*
John Repetti (52)	12,500	12,500	0	*
Dykes Rogers (53)	125,000	125,000	0	*
Thomas F Scaturro (54)	12,500	12,500	0	*
Donald Sesterhenn (55)	12,500	12,500	0	*
James Shealy (56)	12,500	12,500	0	*
Michael Shealy (57)	100,000	100,000	0	*
Catherine Shealy Sinclair (58)	100,000	100,000	0	*
Swadesh Family Trust (59)	50,000	50,000	0	*
Casimir Skrzypczak (60)	12,500	12,500	0	*
A.K.S Family Partners, LP (61)	100,000	100,000	0	*
Sundarrajan Family Rev. Trust (62)	25,000	25,000	0	*
Steve Takaki (63)	15,000	15,000	0	*
Christopher Washburn (64)	12,500	12,500	0	*
James Wiesenber (65)	12,500	12,500	0	*
Samuel Wisnia (66)	100,000	100,000	0	*
The Steve and Kaye Yost Family Trust (67)	12,500	12,500	0	*
Arun Dhar (68)	50,000	50,000	0	*
Dierk Eckart (69)	17,500	17,500	0	*
Lawrence Altman (70)				
	25,000	25,000	0	*
Nirav S. Parikh (71)	10,000	10,000	0	*
Robert Roth (72)	15,000	15,000	0	*
Dierk Eckart (73)	10,000	10,000	0	*
Ommid Bavarian (74)	12,500	12,500	0	*
Reliance Wealth Management (75)	250,000	250,000	0	*
Robert Kramer (76)	7,500	7,500	0	*
Dana Biondi (77)	10,000	10,000	0	*
Mary O'Brien (78)	5,000	5,000	0	*
James Monroe Ferolie (79)	60,000	60,000	0	*
Daniel J. Amori (80)	10,000	10,000	0	*
Christopher Paul Klamkin (81)	5,000	5,000	0	*
Thanat Khamlua (82)	10,000	10,000	0	*
ACNYC, LLC (83)	115,000	115,000	0	*
David Landskowsky (84)	166,786	166,786	0	*
Eric Rubenstein (85)	166,787	166,787	0	*
Tim Hermann (86)	33,790	33,790	0	*
Albert Pezone (87)	27,895	27,895	0	*
Sydney Nelson (88)	3,242	3,242		
Ian Jacobs (89)	200,000	200,000	0	*
Sichenzia Ross Ference LLC (90)	18,750	18,750	0	*
Barrett S. DiPaolo (91)	6,250	6,250	0	*
David Landskowsky (92)	5,294	5,294	0	*
Eric Rubenstein (93)	5,294	5,294	0	*
Albert Pezone (94)	805	805	0	*
Sydney Nelson (95)	107	107	0	*

\* Represents Beneficial Ownership of Less Than One Percent of Our Outstanding Shares.

- (1) Since we do not have the ability to control how many, if any, of their shares each of the selling stockholders listed above will sell, we have assumed that the selling stockholders will sell all of the shares offered herein for purposes of determining how many shares they will own after the offering and their percentage of ownership following the offering.

- (2) All percentages have been rounded up to the nearest one hundredth of one percent.
- (3) Consists of 2,275,000 shares Mr. Tompkins retains from his ownership before the Merger and 357,500 shares he purchased in the Offering for \$715,000. Mr. Tompkins served as our director since inception; he resigned on the effective date of the Merger.
- (4) Consists of 1,623,920 shares of Common Stock Mr. Klamkin was issued in exchange for the 1,250,000 shares of Biond common stock that he purchased for \$10,000 prior to the Merger on October 27, 2020 and 3,075 shares he received pursuant to a Simple Agreement for Future Equity Agreement (the "SAFE Agreement") that provided he shall receive such shares for \$5,000.
- (5) Consists of 1,623,920 shares of Common Stock Mr. McCarthy was issued in exchange for the 1,250,000 shares of Biond common stock that he purchased for \$10,000 prior to the Merger on October 27, 2020 and 3,075 shares he received pursuant to a Simple Agreement for Future Equity Agreement (the "SAFE Agreement") that provided he shall receive such shares for \$5,000.
- (6) Consists of 246,004 shares of Common Stock Mr. DenBaars received pursuant to his advisory agreement letter with us, 30,751 shares he received pursuant to a SAFE Agreement that provided he shall receive such shares for \$50,000 and 100,000 shares he purchased in the Offering.
- (7) Consists of 246,004 shares of Common Stock Mr. Shealy received pursuant to his advisory agreement letter with us, 30,751 shares he received pursuant to a SAFE Agreement that provided he shall receive such shares for \$50,000 and 100,000 shares he purchased in the Offering.



- (8) Consists of 205,017 shares of Common Stock Mr. Ogawa received pursuant to his advisory agreement letter with us, 30,751 shares he received pursuant to a SAFE Agreement that provided he shall receive such shares for \$50,000 and 100,000 shares he purchased in the Offering.
  - (9) Consists of 25,983 shares of Common Stock Mr. Oakley received pursuant to his advisory agreement letter with us.
  - (10) Consists of 30,751 shares Mr. Nakamura received pursuant to a SAFE Agreement that provided he shall receive such shares for \$50,000 and 100,000 shares he purchased in the Offering.
  - (11) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Northlea Partners LLLP is John Abeles. The address for Northlea is 7235 Promenade Drive J-202 Boca Raton, FL 33433.
  - (12) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering.
  - (13) Consists of 50,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over H. Investments is Pamela Baker. The address for H. Investments is 1245 E. Colfax Ave., Suite 304 Denver, CO 80218.
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- (14) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
  - (15) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Due Mondt Investments is Robert Beadle. The address for Due Mondt Investments is 8620 Willow Wing Boerne, TX 78015.
  - (16) Consists of 62,500 shares of Common Stock the selling stockholder purchased in the Offering.
  - (17) Consists of 62,500 shares of Common Stock the selling stockholder purchased in the Offering.
  - (18) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Sage Brakeman LLC is Ed Brakeman. The address is Sage Brakeman is 5 Reade Ln, Sausalito, CA 94965.
  - (19) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering
  - (20) Consists of 75,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Ramrakhi Investments Limited is Mark De La Rue. The address for Ramrakhi Investments Limited is Mont Crevett House, St Sampson, Guernsey.
  - (21) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over DeLoach LS Investments LLC is Dennis DeLoach. The address for DeLoach LS Investments is 8640 Seminole Ave, Seminole, FL 33772.
  - (22) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
  - (23) Consists of 350,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over EE Holdings is Edward Eisler. The address for EE Holdings is PO Box 141, La Tonnelle House Les Banques, St Sampson, Guernsey, G41 3Hs.
  - (24) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
  - (25) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
  - (26) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
  - (27) Consists of 20,000 shares of Common Stock the selling stockholder purchased in the Offering.
  - (28) Consists of 20,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Gubbay Investments, LLC is David Gubbay. The address for Gubbay Investments is 975 Cypress Drive, Delray Beach FL 33483.
  - (29) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Deccan Pacific Ventures is Ramesh Karipineni. The address for Deccan Pacific Ventures is 44655 Vista Grande Terrance, Fremont CA 94539.
  - (30) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
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- (31) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (32) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (33) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (34) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (35) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (36) Consists of 75,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (37) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (38) Consists of 30,000 shares of Common Stock the selling stockholder purchased in the Offering.



- (39) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (40) Consists of 50,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (41) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (42) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over OHB Family Trust is Lisa O'Connell. The address for OHB Family Trust is 7400 Platt Ave, West Hills, CA 91304.
- (43) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Gilbert S. Omenn Trust is Gilbert Omenn. The address for Gilbert S. Omenn Trust is 3340 East Dobson Place Ann Arbor, MI 48105-2583.
- (44) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering; Mr. Paglia is one of our directors.
- (45) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (46) Consists of 250,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Venice Squared Holdings, LLC is Chris Perez. The address for Venice Squared Holdings, LLC is 10645 N. Tatum, 200-168, Phoenix, AZ 85028.
- (47) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (48) Consists of 65,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over The Del Mar Consulting Group, Inc. Retirement Plan Trust is Robert B. Prag. The address for The Del Mar Consulting Group, Inc. Retirement Plan Trust is 2455 El Amigo Road; Del Mar, CA 92014.
- (49) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (50) Consists of 32,500 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Raring Family Trust is James Raring. The address for Raring Family Trust is 441 Baldwin Rd, Santa Barbara, CA 93105.

- (51) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Saiyed Atiq Raza and Nandini Saraiya 2012 Revocable Trust DTD 11/26/12 is Atiq Raza. The address for Saiyed Atiq Raza and Nandini Saraiya 2012 Revocable Trust DTD 11/26/12 is 1781 Arastradero Road, Palo Alto, CA 94304.
- (52) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (53) Consists of 125,00 shares of Common Stock the selling stockholder purchased in the Offering.
- (54) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (55) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (56) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (57) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (58) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (59) Consists of 50,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Swadesh Family Trust is Rajvir Singh. The address for Swadesh Family Trust is 906 Addison Avenue, Palo Alto, CA 94301
- (60) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (61) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over A.K.S Family Partners, LP is Adam Stern. The address for A.K.S Family Partners, LP is 888 C 8th Ave. #530 New York, NY 10019.
- (62) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Sundarrajan Family Rev. Trust is Prabakar Sundarrajan. The address for Sundarrajan Family Rev. Trust is 15858 Mina Way, Saratoga, CA, 95070.
- (63) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (64) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (65) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (66) Consists of 100,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (67) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over The Steve and Kaye Yost Family Trust is Steven Yost. The address for The Steve and Kaye Yost Family Trust is 1265 Lynnmere Dr, Thousand Oaks, CA 91360
- (68) Consists of 50,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (69) Consists of 17,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (70) Consists of 25,000 shares of Common Stock the selling stockholder purchased in the Offering.

- (71) Consists of 10,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (72) Consists of 15,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (73) Consists of 10,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (74) Consists of 12,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (75) Consists of 250,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over Reliance Wealth Management Ltd. is Blue Magnet Limited by Sheldon Cartwright and Lashawn Bethell. The address for Reliance is 2<sup>nd</sup> Floor, Goodman's Bay Corporate Centre, West Bay Street, Nassau, The Bahamas.
- (76) Consists of 7,500 shares of Common Stock the selling stockholder purchased in the Offering.
- (77) Consists of 10,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (78) Consists of 5,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (79) Consists of 60,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (80) Consists of 10,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (81) Consists of 5,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (82) Consists of 10,000 shares of Common Stock the selling stockholder purchased in the Offering.
- (83) Consists of 115,000 shares of Common Stock the selling stockholder purchased in the Offering. The person having voting, dispositive or investment powers over ACNYC, LLC is Andrew Cader. The address for ACNYC, LLC is 300 Beach Dr. NE, UNIT 2401, St. Petersburg, FL 33701.
- (84) Consists of 166,786 shares of Common Stock the selling stockholder received as placement agent compensation in the Offering, including 145,723 shares of common stock underlying Placement Agent Warrants.
- (85) Consists of 166,787 shares of Common Stock the selling stockholder received as placement agent compensation in the Offering, including 145,723 shares of common stock underlying Placement Agent Warrants.
- (86) Consists of 4,373 shares of Common Stock the selling stockholder received as placement agent compensation in the Offering, including 29,417 shares of common stock underlying Placement Agent Warrants.
- (87) Consists of 3,500 shares of Common Stock the selling stockholder received as placement agent compensation in the Offering, including 24,395 shares of common stock underlying Placement Agent Warrants.
- (88) Consists of 3,242 shares of Common Stock underlying Placement Agent Warrants.
- (89) Consists of 200,000 shares of Common Stock Mr. Jacobs retains from his ownership before the Merger.
- (90) Consists of 18,750 shares of Common Stock the selling stockholder received prior to the Merger. The person having voting, dispositive or investment powers over Sichenzia Ross Ference LLC is Thomas A. Rose. The address for SRF is 1185 Avenue of the Americas, 37th Floor, New York, NY 10036.
- (91) Consists of 6,250 shares of Common Stock the selling stockholder received prior to the Merger.
- (92) Consists of 5,294 shares of Common Stock the selling stockholder received as broker warrants.
- (93) Consists of 5,294 shares of Common Stock the selling stockholder received as broker warrants.
- (94) Consists of 805 shares of Common Stock the selling stockholder received as broker warrants.
- (95) Consists of 107 shares of Common Stock the selling stockholder received as broker warrants.

#### PLAN OF DISTRIBUTION

The selling stockholders, which as defined herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership or other distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell all or a portion of their shares through public or private transactions at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The selling stockholders may use any one or more of the following methods when selling shares:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits the purchaser;
- block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal;
- 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;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- through the writing of options on the shares;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 of the Securities Act of 1933, as amended (the “Securities Act”), if available, rather than under this prospectus. The selling stockholders shall have the sole and absolute discretion not to accept any purchase offer or make any sale of shares if it deems the purchase price to be unsatisfactory at any particular time.

The selling stockholders or their respective pledgees, donees, transferees or other successors in interest, may also sell the shares directly to market makers acting as principals and/or broker-dealers acting as agents for themselves or their customers. Such broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling stockholders and/or the purchasers of shares for whom such broker-dealers may act as agents or to whom they sell as principal or both, which compensation as to a particular broker-dealer might be in excess of customary commissions. Market makers and block purchasers purchasing the shares will do so for their own account and at their own risk. It is possible that a selling stockholder will attempt to sell shares of common stock in block transactions to market makers or other purchasers at a price per share which may be below the then existing market price. We cannot assure that all or any of the shares offered in this prospectus will be issued to, or sold by, the selling stockholders. The selling stockholders and any brokers, dealers or agents, upon effecting the sale of any of the shares offered in this prospectus, may be deemed to be “underwriters” as that term is defined under the Securities Act, the Exchange Act and the rules and regulations of such acts. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act.

We are required to pay all fees and expenses incident to the registration of the shares, including fees and disbursements of counsel to the selling stockholders, but excluding brokerage commissions or underwriter discounts.

The selling stockholders, alternatively, may sell all or any part of the shares offered in this prospectus through an underwriter. The selling stockholders have not entered into any agreement with a prospective underwriter and there is no assurance that any such agreement will be entered into.

The selling stockholders may pledge their shares to their brokers under the margin provisions of customer agreements. If a selling stockholder defaults on a margin loan, the broker may, from time to time, offer and sell the pledged shares. The selling stockholders and any other persons participating in the sale or distribution of the shares will be subject to applicable provisions of the Exchange Act, and the rules and regulations under such act, including, without limitation, Regulation M. These provisions may restrict certain activities of, and limit the timing of purchases and sales of any of the shares by, the selling stockholders or any other such person. In the event that any of the selling stockholders are deemed an affiliated purchaser or distribution participant within the meaning of Regulation M, then the selling stockholders will not be permitted to engage in short sales of common stock. Furthermore, under Regulation M, persons engaged in a distribution of securities are prohibited from simultaneously engaging in market making and certain other activities with respect to such securities for a specified period of time prior to the commencement of such distributions, subject to specified exceptions or exemptions. In addition, if a short sale is deemed to be a stabilizing activity, then the selling stockholders will not be permitted to engage in a short sale of our common stock. All of these limitations may affect the marketability of the shares.

If a selling stockholder notifies us that it has a material arrangement with a broker-dealer for the resale of the common stock, then we would be required to amend the registration statement of which this prospectus is a part, and file a prospectus supplement to describe the agreements between the selling stockholder and the broker-dealer.

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the maximum consideration or discount to be received by any member of the FINRA may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus.

## **MARKET FOR OUR COMMON STOCK, DIVIDENDS AND RELATED STOCKHOLDER INFORMATION**

Our common stock trades on the Nasdaq Capital Market under the symbol “ALMU.” Our CUSIP number is 00776X109.

As of October 2, 2025, the last reported sale price of our Common Stock on the Nasdaq Capital Market was \$16.85 per share. As of October 2, 2025, we had 17,851,863 shares of our common stock outstanding held by approximately 40 stockholders of record.

### **Dividend Policy**

We have never paid any cash dividends on our capital stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future. We intend to retain future earnings to fund ongoing operations and future capital requirements. Any future determination to pay cash dividends will be at the discretion of our board of directors and will be dependent upon financial condition, results of operations, capital requirements and such other factors as the board of directors deems relevant.

### **Shares Eligible for Future Sale**

Prior to the Merger, there has been a limited public market for our common stock. Future sales of our common stock, including shares issued upon the exercise of options or warrants that we may issue, in the public market after the Merger, or the perception that those sales may occur, could cause the prevailing price for our common stock to fall or impair our ability to raise equity capital in the future. As described below, only a limited number of shares of our common stock will be available for sale in the public market for a period of several months after consummation of the Merger due to contractual and legal restrictions on resale described below. Future sales of our common stock in the public market either before (to the extent permitted) or after restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing price of our common stock at such time and our ability to raise equity capital at a time and price we deem appropriate.

As of the date hereof, we have 17,851,863 shares of common stock outstanding, of which our directors and executive officers beneficially own an aggregate of 1,918,653 shares. Of those outstanding shares, no shares of common stock are freely tradable, without restriction, as of the date hereof and although they are eligible for resale as registered securities, such shares are deemed “control securities” and their resale remains subject to the volume limitations, manner of sale requirements, and other conditions of Rule 144.

### **Sale of Restricted Shares**

Of the approximately 17,851,863 shares of common stock outstanding, all of such shares will be “restricted securities” as such term is defined in Rule 144. Such restricted securities were issued and sold by us, or will be issued and sold by us, in private transactions and are eligible for public sale only if registered under the Securities Act or if

## Rule 144

Pursuant to Rule 144 promulgated under the Securities Act, sales of the securities of a former shell company, such as us, under that rule are not permitted (i) until at least 12 months have elapsed from the date on which the Form 8-K, reflecting our status as a non-shell company, was filed with the SEC and (ii) unless at the time of a proposed sale, we are subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act and have filed all reports and other materials required to be filed by Section 13 or 15(d) of the Exchange Act, as applicable, during the preceding 12 months, other than Current Reports on Form 8-K. We intend to register such shares for sale under the Securities Act but are currently a “voluntary filer” and are not subject to the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. As a result, unless we register such shares for sale under the Securities Act, most of our stockholders will be forced to hold their shares of our common stock for at least that 12-month period before they are eligible to sell those shares, and even after that 12-month period, sales may not be made under Rule 144 unless we and the selling stockholders are in compliance with other requirements of Rule 144.

In general, Rule 144 provides that (i) any of our non-affiliates that has held restricted common stock for at least 12 months is thereafter entitled to sell its restricted stock freely and without restriction, provided that we remain compliant and current with our SEC reporting obligations, and (ii) any of our affiliates, which includes our directors, executive officers and other person in control of us, that has held restricted common stock for at least 12 months is thereafter entitled to sell its restricted stock subject to the following restrictions: (a) we are compliant and current with our SEC reporting obligations, (b) certain manner of sale provisions are satisfied, (c) a Form 144 is filed with the SEC, and (d) certain volume limitations are satisfied, which limit the sale of shares within any three-month period to a number of shares that does not exceed 1% of the total number of outstanding shares or, if our common stock is then listed or quoted for trading on a national securities exchange, then the greater of 1% of the total number of outstanding shares and the average weekly trading volume of our common stock during the four calendar weeks preceding the filing of the Form 144 with respect to the sale. A person who has ceased to be an affiliate at least three months immediately preceding the sale and who has owned such shares of common stock for at least one year is entitled to sell the shares under Rule 144 without regard to any of the limitations described above.

## Regulation S

Regulation S under the Securities Act provides that shares owned by any person may be sold without registration in the U.S., provided that the sale is effected in an offshore transaction and no directed selling efforts are made in the U.S. (as these terms are defined in Regulation S), subject to certain other conditions. In general, this means that our shares of common stock may be sold in some other manner outside the United States without requiring registration in the United States.

## Rule 701

In general, under Rule 701 as currently in effect, any of our employees, directors, officers, consultants or advisors who acquired common stock from us in connection with a written compensatory stock or option plan or other written agreement, in compliance with Rule 701 under the Securities Act, before the effective date of the Merger (to the extent such common stock is not subject to a lock-up agreement) is entitled to rely on Rule 701 to resell such shares beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act in reliance on Rule 144, but without compliance with the holding period requirements contained in Rule 144. Accordingly, subject to any applicable lock-up agreements, beginning 90 days after we become subject to the public company reporting requirements of the Exchange Act, under Rule 701 persons who are not our “affiliates,” as defined in Rule 144, may resell those shares without complying with the minimum holding period or public information requirements of Rule 144, and persons who are our “affiliates” may resell those shares without compliance with Rule 144’s minimum holding period requirements (subject to the terms of the lock-up agreements described above, if applicable).

## Registration Rights

We granted registration rights in connection with the Merger and the Offering. See, Description of Securities - Registration Rights Agreement.

## Stock Plans

We have a registration statement on Form S-8 (File No. 333-268526), which covers the shares of common stock underlying our 2021 Equity Incentive Plan. Accordingly, shares registered under such registration statement are available for sale in the open market, subject to Rule 144 volume limitations and the lock-up agreements described above, if applicable.

## Securities Authorized for Issuance under Equity Compensation Plans

The following table discloses information as of the end of the period ending June 30, 2025, with respect to compensation plans (including individual compensation arrangements) under which our equity securities are authorized for issuance, aggregated as follows:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Shares of common stock remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	1,570,675	\$ 5.33	1,576,437
Equity compensation plans not approved by security holders	-	-	-
Total	1,570,675	\$ 5.33	1,576,437

## Our 2021 Equity Incentive Plan

Pursuant to the Merger Agreement and upon the closing of the Merger, we adopted our 2021 Equity Incentive Plan (the “2021 Plan”), which provides for the issuance of incentive awards of stock options, restricted stock awards, restricted stock units, stock appreciation rights, performance awards, cash awards, and stock bonus awards. We

initially reserved 980,000 shares of our common stock for issuance pursuant to awards granted under our 2021 Plan. The number of shares reserved for issuance under our 2021 Plan will increase automatically on January 1 of each of 2022 through 2031 by the number of shares equal to the lesser of 5% of the total number of outstanding shares of our common stock as of the immediately preceding December 31, or a number as may be determined by our board of directors. On January 1, 2024 and 2025, the number of shares reserved for issuance was increased by 608,396 shares and 612,124 shares, respectively. As of June 30, 2025, the number of shares available for future issuance under our 2021 Plan was 1,576,437.

## LEGAL MATTERS

The validity of the securities being offered by this prospectus been passed upon for us by Hunter Taubman Fischer & Li LLC.

## EXPERTS

The consolidated financial statements of Aeluma, Inc. as of June 30, 2025 and June 30, 2024 included elsewhere in this registration statement, of which this prospectus is a part, have been audited by Rose, Snyder & Jacobs LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

## WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly, and special reports, and other information with the SEC. Copies of the reports and other information may be read and copied at the SEC's Public Reference Room at 100 F Street N.E., Washington, D.C. 20549. You can request copies of such documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site at <http://www.sec.gov> that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC.

This prospectus is part of a registration statement on Form S-1 that we filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules and regulations of the SEC. We have also filed exhibits and schedules with the registration statement that are excluded from this prospectus. For further information, you may:

- read a copy of the registration statement, including the exhibits and schedules, without charge at the SEC's Public Reference Room; or
- obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

We file periodic reports, proxy statements, and other information with the SEC. These periodic reports, proxy statements, and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. After the closing of this offering, you may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference into this prospectus.

## DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

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

## AELUMA, INC.

## INDEX TO FINANCIAL STATEMENTS

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## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of  
Aeluma, Inc.

## Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Aeluma, Inc. and Subsidiary (the Company) as of June 30, 2025 and 2024, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended June 30, 2025, and the related notes (collectively referred to as the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of June 30, 2025 and 2024, and the results of its operations and its cash flows for each of the years in the two-year period ended June 30, 2025, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) "PCAOB" and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audit, we are required to obtain an understanding of internal control over financial reporting, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audit included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audit also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audit provides a reasonable basis for our opinion.

### Critical Audit Matters

The critical audit matters are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

/s/ Rose, Snyder & Jacobs LLP

Rose, Snyder & Jacobs LLP

We have served as the Company's auditor since 2021

Encino, California

September 9, 2025

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## Aeluma, Inc. and Subsidiary Consolidated Balance Sheets (\$ in thousands, except per share data)

	<b>June 30,</b>	
	<b>2025</b>	<b>2024</b>
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 3,628	\$ 1,291
Certificate of deposit	12,112	-
Accounts receivable	962	60
Deferred compensation	-	20
Prepays and other current assets	633	22
Total current assets	17,335	1,393
Property and equipment:		
Equipment	1,692	1,531
Leasehold improvements	547	547
Accumulated depreciation	(1,021)	(609)
Property and equipment, net	1,218	1,469
Intangible assets	4	7
Right of use asset - operating	836	962
Other assets	13	13
<b>Total assets</b>	<b>\$ 19,406</b>	<b>\$ 3,844</b>
<b>Liabilities and stockholders' equity</b>		
Current liabilities:		
Accounts payable	\$ 361	\$ 317
Accrued expenses and other current liabilities	206	181
Lease liability - operating, current portion	138	129
Total current liabilities	705	627
Lease liability - operating, long-term portion	803	941
<b>Total liabilities</b>	<b>1,508</b>	<b>1,568</b>
Commitments and contingencies	-	-
Stockholders' equity:		
Preferred stock, \$0.0001 par value: 10,000,000 authorized, and none issued and outstanding at June 30, 2025 and 2024	-	-
Common stock, \$0.0001 par value: 50,000,000 shares authorized as of June 30, 2025 and 2024, and 15,864,360 and 12,178,424 shares issued and outstanding as of June 30, 2025 and 2024, respectively	2	1
Additional paid-in capital	34,542	15,899
Accumulated deficit	(16,646)	(13,624)

<b>Total stockholders' equity</b>	<b>17,898</b>	<b>2,276</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 19,406</b>	<b>\$ 3,844</b>

The accompanying notes are an integral part of these financial statements

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**Aeluma, Inc. and Subsidiary**  
**Consolidated Statements of Operations**  
(\$ in thousands, except per share data)

	<b>Year Ended June 30,</b>	
	<b>2025</b>	<b>2024</b>
Revenue	\$ 4,665	\$ 919
Operating expenses:		
Cost of revenue	1,884	619
Research and development	1,295	2,507
General and administrative	3,628	2,356
Total operating expenses	6,807	5,482
Loss from operations	(2,142)	(4,563)
Other income (expense):		
Interest income	113	1
Amortization of discount on convertible notes	(715)	-
Changes in fair value of derivative liabilities	(278)	-
Total other income (expense), net	(880)	1
Loss before income tax expense	(3,022)	(4,562)
Income tax expense	-	-
<b>Net loss</b>	<b>\$ (3,022)</b>	<b>\$ (4,562)</b>
<b>Net loss per share - basic and diluted</b>	<b>\$ (0.23)</b>	<b>\$ (0.37)</b>
<b>Weighted average common shares outstanding - basic and diluted</b>	<b>13,168,345</b>	<b>12,298,355</b>

The accompanying notes are an integral part of these financial statements

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**Aeluma, Inc. and Subsidiary**  
**Consolidated Statements of Stockholders' Equity**  
(\$ in thousands)

	<b>Common Stock</b>		<b>Additional paid-in capital</b>	<b>Accumulated Deficit</b>	<b>Total Stockholders' Equity</b>
	<b>Shares</b>	<b>Amount</b>			
<b>Balance, July 1, 2023</b>	<b>12,817,500</b>	<b>\$ 1</b>	<b>\$ 15,171</b>	<b>\$ (9,062)</b>	<b>\$ 6,110</b>
Repurchase of common stock (Note 4)	(649,570)	-	(4)	-	(4)
Stock warrants exercised	10,494	-	-	-	-
Stock-based compensation	-	-	732	-	732
Net loss	-	-	-	(4,562)	(4,562)
<b>Balance, June 30, 2024</b>	<b>12,178,424</b>	<b>\$ 1</b>	<b>\$ 15,899</b>	<b>\$ (13,624)</b>	<b>\$ 2,276</b>
Issuance of common stock, net of offering costs (Note 4)	2,628,571	1	12,587	-	12,588
Conversion of convertible notes (Note 3)	898,573	-	1,667	-	1,667
Conversion of derivative liabilities (Note 2)	-	-	2,471	-	2,471
Stock options exercised	151,028	-	25	-	25
Stock warrants exercised	8,034	-	-	-	-
Stock-based compensation	-	-	1,893	-	1,893
Net loss	-	-	-	(3,022)	(3,022)
<b>Balance, June 30, 2025</b>	<b>15,864,630</b>	<b>\$ 2</b>	<b>\$ 34,542</b>	<b>\$ (16,646)</b>	<b>\$ 17,898</b>

The accompanying notes are an integral part of these financial statements

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**Aeluma, Inc. and Subsidiary**  
**Consolidated Statements of Cash Flows**  
(\$ in thousands)

	<b>Year Ended June 30,</b>	
	<b>2025</b>	<b>2024</b>
<b>Operating activities:</b>		
Net loss	\$ (3,022)	\$ (4,562)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of deferred compensation	20	33
Stock-based compensation expense	1,893	732
Depreciation and amortization expense	415	311
Amortization of discount on convertible notes	715	-
Changes in fair value of derivative liabilities	278	-

Changes in operating assets and liabilities:		
Accounts receivable	(902)	129
Prepays and other current assets	(611)	(2)
Accounts payable	44	(144)
Accrued expenses and other current liabilities	22	48
<b>Net cash used in operating activities</b>	<b>(1,148)</b>	<b>(3,455)</b>
<b>Investing activities:</b>		
Purchase of equipment	(161)	(322)
<b>Net cash used in investing activities</b>	<b>(161)</b>	<b>(322)</b>
<b>Financing activities:</b>		
Repurchase of common stock	-	(4)
Proceeds from stock option exercise	25	-
Proceeds from convertible notes issuance	3,145	-
Proceeds from Public Offering, net of offering costs	12,588	-
<b>Net cash provided by (used in) financing activities</b>	<b>15,758</b>	<b>(4)</b>
<b>Net change in cash and cash equivalents, and certificate of deposit</b>	<b>14,449</b>	<b>(3,781)</b>
<b>Cash and cash equivalents, and certificate of deposit, beginning of period</b>	<b>1,291</b>	<b>5,072</b>
<b>Cash and cash equivalents, and certificate of deposit, end of period</b>	<b>\$ 15,740</b>	<b>\$ 1,291</b>
<b>Supplemental non-cash disclosures:</b>		
Conversion of convertible notes to stockholders' equity	\$ 1,667	-
Conversion of derivative liabilities to stockholders' equity	\$ 2,471	-

The accompanying notes are an integral part of these financial statements

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**Aeluma, Inc. and Subsidiary**  
**Notes to Consolidated Financial Statements**

**Note 1 – The Company**

Aeluma, Inc. (the “Company”) develops novel optoelectronic and electronic devices for sensing, communication, and computing applications. Aeluma has pioneered a technique to produce semiconductor materials and chips using high-performance compound semiconductors on large-diameter substrates commonly used to manufacture mass-market microelectronics. This enables cost-effective manufacturing of high-performance photodetectors and photodetector arrays for imaging applications in mobile devices and other applications. Aeluma’s technology is broadly applicable across mobile, automotive, artificial intelligence (AI), defense & aerospace, communication, augmented reality (AR), virtual reality (VR), high-performance computing, and quantum computing. Aeluma is based in Goleta, California, where the Company operates in a 9,000 sq. ft. facility with a state-of-the-art research and development (“R&D”)/manufacturing cleanroom and access to world-class rapid prototyping capabilities. The facility houses unique equipment for scalable manufacturing. Aeluma also partners with production-scale fabrication foundries and packaging companies. Aeluma maintains extensive patent protection and trade secrets related to its materials, manufacturing technology, and applications.

**Note 2 – Summary of Significant Accounting Policies**

*Basis of Presentation*

The accompanying consolidated financial statements have been presented in accordance with U.S. generally accepted accounting principles (“GAAP”). The summary of significant accounting policies presented below is designed to assist in understanding the Company’s financial statements. Such financial statements and accompanying notes are the representations of the Company’s management, who is responsible for the Company’s integrity and objectivity.

*Use of Estimates and Assumptions*

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. The Company bases its estimates and assumptions on current facts, historical experience, and various other factors that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. The actual results experienced by the Company may differ materially and adversely from the Company’s estimates. To the extent there are material differences between the estimates and the actual results, future results of operations will be affected.

*Reclassification of Prior Year Presentation*

Certain prior year amounts have been reclassified for consistency with the current year presentation. These reclassifications had no effect on the reported consolidated financial statements

*Cash and Cash Equivalents, and Certificate of Deposit*

The Company considers cash in banks, deposits in transit, and highly liquid debt instruments purchased with original maturities of three months or less to be cash and cash equivalents. The Company invests its excess cash in certificates of deposit issued by financial institutions with high credit ratings. As of June 30, 2025, the Company held a certificate of deposit with a carrying value of \$12.1 million, including \$112 thousand of interest income. The certificate of deposit bears interest at a rate of 3.74%.

*Concentration of Risk*

The Company maintains its cash in bank deposit accounts, which, at times, may exceed federally insured limits. The Company has not experienced any losses in such accounts. The Company’s accounts are insured by the FDIC, but at times may exceed federally insured limits.

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The Company manages its credit risk associated with exposure to its direct customers on outstanding accounts receivable through the application of credit approvals and other monitoring procedures. The Company closely monitors the aging of accounts receivable from its direct customers. Significant customers are those that represent 10% or more of revenue or accounts receivable. For the fiscal year ended June 30, 2025, 71% of our revenue was derived from Customer E and, for the fiscal year ended June 30, 2024, 36%, 31% and 17% of our revenue was derived from Customer A, B and C, respectively. As of June 30, 2025, 100% of accounts receivable was attributable to Customer E



and, as of June 30, 2024, 18%, 28% and 54%. of accounts receivable were attributable to Customer C, D and F, respectively. Customers A, B, C, D and E are government agencies

#### Segments

Our chief operating decision maker (“CODM”), the Chief Executive Officer, manages the Company’s business activities as one single operating and reportable segment at the consolidated level. Accordingly, our CODM uses consolidated net income to measure segment profit or loss, allocate resources and assess performance. Further, the CODM reviews and utilizes revenue, operating expenses, and other income (expense) at the consolidated level to manage the Company’s operations.

#### Convertible Debt Instruments

The Company evaluates agreements, including any convertible debt instruments, to determine if those agreements or any embedded components of those agreements qualify as derivative financial instruments to be separately accounted for in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 815 “Derivatives and Hedging” (“ASC 815”). The accounting treatment of derivative financial instruments requires that the Company record any bifurcated embedded features at their fair values as of the inception date of the agreement and at fair value as of each subsequent balance sheet date. Any change in fair value is recorded in earnings as non-operating, non-cash income or expense. The Company reassesses the classification of its derivative instruments at each balance sheet date. If the classification changes as a result of events during the period, the agreement is reclassified as of the date of the event that caused the reclassification. Bifurcated embedded features are recorded at their initial fair values, which creates an additional debt discount to the host instrument. The Company amortizes the respective debt discount over the term of the notes, using the effective interest method. See Note 3 – Convertible Notes.

#### Fair Value of Financial Instruments

As defined in FASB ASC Topic No. 820, “Fair Value Measurements and Disclosures” (“ASC 820”), fair value is the price that would be received to sell an asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses the market or income approach. Based on this approach, the Company utilizes certain assumptions about the risk inherent in the inputs to the valuation technique. These inputs can be readily observable, market-corroborated, or generally unobservable. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation techniques, the Company is required to provide the following information according to the fair value hierarchy. The fair value hierarchy ranks the quality and the reliability of the information used to determine fair values. As a basis for considering these assumptions, ASC 820 defines a three-tier value hierarchy that prioritizes the inputs used in the valuation methodologies in measuring fair value.

Level 1 – Unadjusted quoted prices in active, accessible markets for identical assets or liabilities

Level 2 – Other inputs that are directly or indirectly observable in the marketplace

Level 3 – Unobservable inputs, which are supported by little or no market activity

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

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The carrying values of the Company’s cash, accounts receivable, accounts payable, accrued expenses, and other current liabilities approximate their fair value due to the relatively short maturity of these items. Financial assets and liabilities measured on a non-recurring basis are those that are adjusted to fair value when a significant event occurs. The Company had no financial assets or liabilities carried and measured on a nonrecurring basis during the reporting periods. Financial assets and liabilities measured on a recurring basis are those that are adjusted to fair value each time a financial statement is prepared.

For recurring fair value measurement categorized within Level 3, assets and liabilities whose value is determined using a market standard valuation technique are included and described below. When observable inputs are not available, the market standard techniques for determining the estimated fair value of certain securities that trade infrequently, and therefore have little transparency, rely on inputs that are significant to the estimated fair value and that are not observable in the market or cannot be derived principally from or corroborated by observable market data. Management believes these inputs are based on assumptions deemed appropriate given the circumstances and consistent with what other market participants would use when pricing similar assets and liabilities. The Company’s embedded derivatives are classified in Level 3 using the Black-Scholes option-pricing model since their values include significant unobservable inputs.

On March 25, 2025, holders of convertible promissory notes elected to convert the convertible notes into common stock. As part of the conversion, the Company remeasured the fair value of the embedded derivative liabilities immediately prior to conversion. The fair value of the embedded derivatives in our convertible notes as of the conversion date was determined based on a fair market value of \$6.25 as of March 25, 2025.

All derivative liabilities were exercised, and as of June 30, 2025, the Company had no remaining outstanding derivative liabilities.

#### Fair Value of Embedded Derivatives (\$ in thousands)

Beginning balance at July 1, 2024	\$	-
New derivative liabilities		2,193
Change in fair value of derivative liabilities		278
Conversion of derivative liabilities		(2,471)
Ending balance at June 30, 2025	\$	-

#### Property and Equipment

Property, equipment, and leasehold improvements are reported at historical cost, net of accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets. Leasehold improvements are amortized over the lesser of the remaining lease term or the estimated useful life of the improvements. Repairs and maintenance to these assets are charged to expenses as incurred; major improvements enhancing the function and/or the asset’s useful life are capitalized. When items are sold or retired, the related cost and accumulated depreciation are removed from the accounts, and any gains or losses arising from such transactions are recognized.

#### Intangible Assets

Intangible assets are associated with the Aeluma.com domain name and are amortized on a straight-line basis over 10 years.

#### Revenue Recognition

The Company follows a five-step approach for recognizing revenue: (1) identifying the contract with a customer; (2) identifying the performance obligations in the contract; (3) determining the transaction price; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when, or as, the entity

satisfies a performance obligation. Revenue is recognized when control of the promised goods or services is transferred to the customer. For performance obligations that are satisfied at a single point in time, the Company recognizes revenue at the point when control transfers, which is typically upon delivery, customer acceptance, or another specified milestone defined in the contract. For performance obligations satisfied over time, revenue is recognized as progress is made toward completion, using a measure that best depicts the transfer of control to the customer. Sales and other taxes the Company collects concurrent with revenue-producing activities are excluded from revenue. Incidental items that are immaterial in the context of the contract are recognized as expenses. The Company does not have any significant financing components associated with its revenue contracts, as payment is received within one year. The Company currently draws revenue from two primary sources:

- Commercial product and service contracts: Revenue is currently generated from multiple customers for R&D-related services and small-volume orders.

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- Government contracts: Revenue is principally generated under R&D contracts with agencies of the U.S. government or with prime contractors. These contracts may include cost-reimbursement or fixed-price terms.

The Company capitalizes certain incremental costs incurred to obtain or fulfill a contract when such costs are expected to be recoverable. Prepaid costs, such as advance payments to vendors or subcontractors directly related to a customer contract, are recorded as assets and subsequently expensed consistent with the transfer of goods or services to the customer.

Government contracts include both cost-reimbursement and fixed-price contracts. Cost-reimbursement contracts provide for the reimbursement of allowable costs plus the payment of a fee. These contracts fall into four basic types: (i) cost-sharing contract under which government reimburses only a portion of the incurred costs, (ii) cost plus fixed fee contracts which provide for the payment of a fixed fee irrespective of the final cost of performance, (iii) cost plus incentive fee contracts which provide for increases or decreases in the fee, within specified limits, based upon actual results as compared to contractual targets relating to such factors as cost, performance and delivery schedule, and (iv) cost plus award fee contracts which provide for the payment of an award fee determined at the discretion of the customer based upon the performance of the contractor against pre-established criteria. Under cost-reimbursement type contracts, the contractor is reimbursed periodically for allowable costs and is paid a portion of the fee based on contract progress. Fixed-price contracts establish a set price for goods or services, which may be firm or adjustable under specific conditions. Adjustable fixed-price contracts can include elements such as ceiling or target prices, which are only subject to change through contract clauses that allow for equitable adjustments. Firm-fixed-price contracts do not permit any price changes based on the contractor's actual costs, placing full financial risk and responsibility on the contractor. In contrast, fixed-price contracts with economic price adjustments allow for price changes either increases or decreases based on predefined events or conditions.

For the fiscal year ended June 30, 2025, the Company was awarded six government contracts totaling \$3.8 million for the provision of services and delivery of materials. These awards are cost-reimbursement and firm-fixed-price contracts, under which payments are made upon completion of specified performance milestones. Revenue associated with these contracts will be recognized upon achievement of designated milestones.

For the fiscal year ended June 30, 2025, the Company recognized total revenue of \$4.7 million, consisting of \$4.4 million from all obligated government contracts and \$266 thousand from product sales related to sampling or development activities. For the fiscal year ended June 30, 2024, the Company recognized total revenue of \$919 thousand, consisting of \$854 thousand from government contracts and \$65 thousand from product sales related to sampling or development activities.

As of June 30, 2025, total remaining performance obligations under all obligated government contracts amounted to \$0.2 million.

#### *Income (Loss) Per Share*

Basic income (loss) per share is computed by dividing net income (loss) available to common shareholders by the weighted average number of common shares outstanding during the period. Diluted income (loss) per share is computed by dividing the net income (loss) attributable to common stockholders by the sum of the weighted average number of common shares outstanding plus potential dilutive common shares outstanding during the period. Potential dilutive securities, comprised of stock warrants and stock options, are not reflected in diluted loss per share because such shares are anti-dilutive. The dilutive impact of potential common shares resulting from common stock equivalents is determined by applying the treasury stock method. For the fiscal year ended June 30, 2025, 1,546,675 stock options were excluded from the calculation of diluted income per share as their inclusion would have been anti-dilutive.

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#### *Stock-Based Compensation*

The Company accounts for stock-based compensation arrangements in accordance with guidance issued by the FASB, which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees, consultants, and directors based on estimated fair values.

The Company estimates the fair value of stock-based compensation awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as an expense over the requisite service periods in the Company's consolidated statements of operations. The Company estimates the fair value of stock-based compensation awards using the Black-Scholes model. This model requires the Company to estimate the expected volatility and value of its common stock and the expected term of the stock options, all of which are highly complex and subjective variables. For employees and directors, the expected life was calculated based on the simplified method as described by the Securities and Exchange Commission ("SEC") Staff Accounting Bulletin No. 110, Share-Based Payment. For other service providers, the expected life was calculated using the contractual term of the award. The Company's estimate of expected volatility was based on the volatility of peers. The Company has selected a risk-free rate based on the implied yield available on U.S. Treasury securities with a maturity equivalent to the expected term of the options. The Company accounts for forfeitures upon occurrence.

#### *Income Taxes*

The Company is expected to have net operating loss carryforwards that it can use to offset a certain amount of taxable income in the future. The Company is currently analyzing the amount of loss carryforwards that will be available to reduce future taxable income. The resulting deferred tax assets will be offset by a valuation allowance due to the uncertainty of their realization. The primary difference between income tax expense attributable to continuing operations and the amount of income tax expense that would result from applying domestic federal statutory rates to income before income taxes relates to the recognition of a valuation allowance for deferred income tax assets.

The Company has adopted FASB ASC 740-10, "Income Taxes" which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements and prescribes a recognition threshold of more likely than not as a measurement process for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. In making this assessment, a Company must determine whether it is more likely than not that a tax position will be sustained upon examination, based solely on the technical merits of the position and must assume that the tax position will be examined by taxing authorities. The Company's policy is to include interest and penalties related to unrecognized tax benefits in income tax expense. Interest and penalties totaled \$0 for the periods presented. The Company's net operating loss carryforwards are subject to IRS examination until they are fully utilized, and such tax years are closed.

The Company will file tax returns in the U.S. federal jurisdiction and the state of California. The Company's federal and state return forms are subject to review by the taxing authorities. The Company is not currently under examination by any taxing authority, nor has it been notified of an impending examination.

FASB Accounting Standards Updates (“ASU”) No. 2023-07 - *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*. This expands disclosures about a public entity’s reportable segments and requires more enhanced information about a reportable segment’s expenses, interim segment profit or loss, and how a public entity’s chief operating decision maker uses reported segment profit or loss information in assessing segment performance and allocating resources. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024 and should be applied retrospectively. The Company adopted ASU 2023-07 in 2025 and it did not have an impact on the Company’s financial position or results of operation as it impacts disclosures only.

#### Recent Accounting Pronouncements under Evaluation

In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. This ASU amends the disclosure requirements for income taxes, including the requirement for further disaggregation of the income tax rate reconciliation and income taxes paid disclosures. The amendments in this guidance must be applied prospectively, with the option to apply retrospectively. This guidance is effective for fiscal years beginning after December 15, 2024. The Company is currently evaluating the impact of this new standard on its consolidated financial statements, and the adoption is not expected to have a significant impact on the consolidated financial statements.

In November 2024, the FASB issued ASU No. 2024-03, *Disaggregation of Income Statement Expenses (DISE)*. The ASU requires additional disclosure regarding specific types of expenses included in the income statement. This guidance applies to all public business entities and is effective for annual reporting periods beginning after December 15, 2026 and interim reporting periods within annual reporting periods beginning after December 15, 2027. The requirements will be applied prospectively with the option for retrospective application. The Company is currently evaluating the impact of this new standard on its consolidated financial statements, and the adoption is not expected to have a significant impact on the consolidated financial statements.

#### Note 3 – Convertible Notes

Between August 5, 2024 and August 27, 2024, we issued convertible promissory notes in the aggregate principal amount of \$3.1 million to 10 accredited investors, pursuant to a private note financing. The Notes were set to mature in June 2026 and did not carry any interest. The Notes were convertible into shares of the Company’s common stock par value \$0.0001 per share (the “Common Stock”) upon the occurrence of certain events, (i.e., qualified financing resulting in at least \$0.0 million to the Company, if the Common Stock was uplisted to a national securities exchange or if neither of those such events occurred prior to the maturity date, (together with Sale of the Company (as hereinafter defined), a “Conversion Event”). In the event the Company did not complete a qualified financing or uplist at or before the maturity date, the outstanding balance of the Notes shall automatically convert without any further action by the Holder into shares of the Company’s common stock at a conversion price equal to eighty-five percent (85%) to the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to maturity date. The Note also provided that if there was a Sale of the Company, as defined in the Note, the Holder could elect to receive a cash payment equal to the aggregate amount of principal then outstanding under such Holder’s Note or convert the Note into shares of Common Stock equal to 85% of the VWAP of the Common Stock on the OTC Markets for the five trading days immediately prior to the Sale of the Company. Although the conversion price was dependent upon the type of Conversion Event that occurred, the Note carried a ceiling and floor price: the applicable conversion price was not lower than 85% of the 5-day VWAP on the applicable Closing Date (the “Floor Price”) nor was the applicable conversion price be higher than \$3.50 per share (the “Ceiling Price”); the Floor Price and Ceiling Price shall automatically adjust in the event of a stock split or consolidation by the Company. Since the Floor Price was tied to the Closing Date, the Floor Price differed for investors who were part of different closings. The Floor Price for the investors who participated in the closings was equal to \$2.47 or \$2.68 per share. The Investors were granted piggyback registration rights for the shares of Common Stock underlying the Note.

The Note Purchase Agreement also contained customary representations and warranties of the Company and the Investors, indemnification obligations of the Company, termination provisions, and other obligations and rights of the parties.

The Company analyzed the embedded features of the convertible notes and the debt discount is being amortized over the term of the convertible notes using the effective interest method and the derivative liabilities are marked-to-market at each reporting date. See *Fair Value of Financial Instruments* in Note 2 – Summary of Significant Accounting Policies for additional information.

On March 25, 2025, the Company determined that a Conversion Event had occurred pursuant to the terms of the Notes. As a result, certain holders elected to convert their Notes at the applicable Ceiling Price of \$3.50 per share, resulting in the issuance of an aggregate of 898,573 shares of Common Stock in exchange for \$3.1 million in outstanding principal under the Notes. Following the conversion, the Company has no further obligations under the converted Notes. The shares issued upon conversion are subject to piggyback registration rights previously granted to the investors. See Public Offering of Common Stock in Note 4 – Stockholders’ Equity

For the fiscal year ended June 30, 2025, the Company recorded amortization of discount on convertible notes of \$15 thousand. The carrying amount of convertible notes, totaling \$1.7 million, including unamortized debt discount of \$1.5 million, was reclassified to equity.

As of June 30, 2025, the Company’s convertible notes are as follows (\$ in thousands):

<b>Principal amounts of convertible notes</b>	<b>\$ 3,145</b>
Less: unamortized debt discount	(1,478)
<b>Convertible notes, net of discount</b>	<b>1,667</b>
Conversion of convertible notes	(1,667)
<b>Principal amounts of convertible notes</b>	<b>\$ -</b>

#### Note 4 – Stockholders’ Equity

##### Authorized Shares

The Company’s Articles of Incorporation authorize the issuance of two classes of shares of stock. The total number of shares which this corporation is authorized to issue is 50,000,000 shares of \$0.0001 par value common stock and 10,000,000 of \$0.0001 par value preferred stock. No preferred shares were issued as of June 30, 2025.

##### Issued and Vested Shares to Officers

On October 27, 2020, the Company issued 1,623,920 shares of common stock each to Jonathan Klamkin, Director and Chief Executive Officer, and Lee McCarthy, Director, Interim Chief Financial Officer and Chief Operations Officer, for \$10 thousand from each. Initially, 20% or 324,784 shares vested on October 27, 2020, and the remaining 1,299,136 shares vest in equal amounts, monthly over the subsequent 4 years. The stock purchase agreement contains a repurchase option whereby unvested shares may be repurchased by the Company, at the Company’s option. On November 17, 2022, Lee McCarthy left the Company, and on September 10, 2023, the Company exercised its

option to purchase 649,570 unvested restricted shares Lee McCarthy held for a total consideration of \$4 thousand, the initial purchase price of these shares. At June 30, 2025, all of Jonathan Klamkin's shares vested.

## Registration Rights Agreement

The Company entered into a registration rights agreement that provides for certain liquidated damages upon the occurrence of a "Registration Event," which is defined as the occurrence of any of the following events: (a) the Company fails to file with the Commission the Registration Statement on or before the Registration Filing Date; (b) the Registration Statement is not declared effective by the Commission on or before the Registration Effectiveness Date; (c) after the SEC Effective Date, the Registration Statement ceases for any reason to remain effective or the Holders of Registrable Securities covered thereby are otherwise not permitted to utilize the prospectus therein to resell the Registrable Securities covered thereby, except for Blackout Periods permitted herein; or (d) following the listing or inclusion for quotation on an Approved Market, the Registrable Securities, if issued and outstanding, are not listed or included for quotation on an Approved Market, or trading of the Common Stock is suspended or halted on the Approved Market, which at the time constitutes the principal markets for the Common Stock, for more than three (3) full, consecutive Trading Days (other than as a result of (A) actions or inactions of parties other than the Company or its affiliates or of the Approved Market not reasonably in the control of the Company, or (B) suspension or halt of substantially all trading in equity securities (including the Common Stock) on the Approved Market). The maximum amount of liquidated damages that may be paid by the Company shall be an amount equal to eight percent (8%) of the shares covered by the registration rights agreement. This filing covered 11,010,002 shares. The Company currently expects to satisfy all of its obligations under the Registration Agreement and does not expect to pay any damages pursuant to this agreement; therefore, no liability has been recorded.

The Company filed the Registration Statement on Form S-1 with the SEC, and it was declared effective on March 26, 2025. As a result, the Company has satisfied the applicable filing and effectiveness obligations under the Registration Rights Agreement and does not expect to pay any damages pursuant to this agreement. Therefore, no liability has been recorded.

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## Public Offering of Common Stock

On March 26, 2025, the Company entered into an Underwriting Agreement ("UA") with Craig-Hallum Capital Group LLC in connection with a public offering of 2,285,714 shares of its common stock at a price of \$5.25 per share. The Company also granted the Underwriter a 30-day option to purchase up to an additional 342,857 shares to cover over-allotments, which was exercised in full on March 27, 2025. The offering closed on March 28, 2025.

The offering was conducted pursuant to the Company's registration statements on Form S-1 (File No. 333-285469), declared effective by the SEC on March 25, 2025, and on Form S-1MEF filed under Rule 462(b), effective March 26, 2025.

Total gross proceeds from the offering, including the over-allotment option, were \$3.8 million. Net proceeds, after underwriting discounts and offering expenses, were \$2.6 million. The Company intends to use the proceeds for business development, scaling manufacturing operations, and general corporate purposes.

Under the terms of the UA, the Company provided a 7.0% underwriting discount per share and issued to the Underwriter warrants to purchase up to 5.0% of the total shares sold in the offering (including the over-allotment shares), with an exercise price equal to 115% of the public offering price. See Note 7 - Warrants

In connection with the offering, the Company, as well as its directors and officers, agreed to a 90-day lock-up period restricting sales or transfers of Company securities, subject to customary exceptions. The Underwriter has the discretion to release these restrictions at any time.

## Note 5 – Stock-Based Compensation

### Restricted Stock Awards

The Company has entered into various consulting agreements that involved the issuance of common stock in exchange for future services. These agreements included time-based vesting provisions and repurchase rights tied to service terms. In connection with these agreements, the Company recorded deferred compensation for the fair value of the shares in excess of the amounts paid. The deferred compensation is recognized as consulting expense in the consolidated statements of operations over the respective service periods.

For the fiscal years ended June 30, 2025 and 2024, \$20 thousand and \$33 thousand, respectively, have been amortized in the consolidated statements of operations. As of June 30, 2025, there was no deferred compensation included in the consolidated balance sheets, as all deferred compensation had been fully expensed.

The following is a schedule summarizing restricted stock awards for the periods indicated:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
<b>Outstanding at July 1, 2023</b>	75,293	\$ 1.97
Granted	-	-
Vested	(64,696)	1.98
Forfeited	-	-
<b>Outstanding at June 30, 2024</b>	10,597	\$ 1.90
Granted	-	-
Vested	(10,597)	1.90
Forfeited	-	-
<b>Outstanding at June 30, 2025</b>	-	\$ -

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## Common Stock Options

For the fiscal year ended June 30, 2024, the Company granted stock options of 20,000 and 100,821 to consultants and members of the board of directors, respectively. The stock options granted to consultants expire in 10 years have exercise prices ranging from \$2.50 to \$3.90, and vest immediately. Stock options granted to members of the board of directors expire in 10 years have an exercise price of \$2.99, and vest in nine months.

For the fiscal year ended June 30, 2025, the Company granted stock options of 78,000 and 723,354 to consultants, and employees and members of the Company's board of directors, respectively. The stock options granted to consultants expire in 10 years, have exercise prices ranging from \$2.97 to \$3.51 and vest in six months to 2 years. Stock options granted to employees and members of board of the Company's directors expire in 10 years, have exercise prices ranging from \$5.93 to \$18.99, and vest in one month to forty-eight months.

The Company estimates the fair value of each option granted using the Black-Scholes option-pricing model. The Company used the following assumptions to estimate the fair value of stock options for the period presented:

	Year Ended June 30,	
	2025	2024
Weighted-average fair value	\$ 6.53	\$ 2.52
Expected volatility	113.9% - 138.3%	104.9% - 113.9%
Expected term	0.9 years - 6.1 years	5.0 years - 6.2 years
Dividend yield	0.00%	0.00%
Risk-free interest rate	3.87% - 4.65%	3.94% - 4.92%

For the fiscal years ended June 30, 2025 and 2024, stock-based compensation expenses for options granted were \$1.9 million and \$732 thousand, respectively. Unrecognized stock-based compensation expense was \$4.1 million, and the average expected recognition period was 1.5 years as of June 30, 2025.

The following is a schedule summarizing stock option activities for the periods presented (\$ in thousands, except per share data):

	Number of Options	Weighted Average Exercise Price	Aggregate Intrinsic Value <sup>(1)</sup>
<b>Outstanding at July 1, 2024</b>	<b>953,821</b>	<b>\$ 2.45</b>	<b>\$ 1,087</b>
Granted	801,354	8.08	
Exercised	(267,957)	2.28	
Reversal of Expired/forfeited	83,457	2.89	
<b>Outstanding at June 30, 2025</b>	<b>1,570,675</b>	<b>\$ 5.33</b>	<b>\$ 17,410</b>
<b>Exercisable at June 30, 2025</b>	<b>837,754</b>	<b>\$ 3.65</b>	<b>\$ 10,656</b>
<b>Outstanding at July 1, 2023</b>	<b>1,034,000</b>	<b>\$ 2.31</b>	<b>\$ 640</b>
Granted	120,821	3.01	
Exercised	-	-	
Expired/forfeited	(201,000)	2.08	
<b>Outstanding at June 30, 2024</b>	<b>953,821</b>	<b>\$ 2.45</b>	<b>\$ 1,087</b>
<b>Exercisable at June 30, 2024</b>	<b>550,116</b>	<b>\$ 2.36</b>	<b>\$ 674</b>

(1) Represents the excess of the fair value on the last day of the period (which was \$16.37 and \$3.59 as of June 30, 2025 and 2024, respectively) over the exercise price, multiplied by the number of options.

## Note 6 – Facility Operating Lease

On April 1, 2021, the Company commenced a 5-year operating lease for a facility in Santa Barbara, California with total lease payments of \$782 thousand. The Company determined the lease constitutes a Right of Use (ROU) asset and has recorded the present value of the lease payments as an asset and liability per ASC 842. The lease agreement waived the first three months of rent with payments commencing July 1, 2021. At the commencement of the lease, the net present value of the lease payments was \$768 thousand. In addition to these lease payments, the Company is also responsible for its shares of common area operating expenses and electricity. Such expenses are considered variable costs and are not included in the measurement of the lease liability. The lease agreement also provides for the option to extend the lease for two additional sixty-month periods. On July 1, 2023, one of the two options to extend was considered reasonably certain of exercise, and the Company remeasured the ROU asset and lease liability. The Company recorded the net present value of \$1.2 million for both the ROU asset and lease liability on July 1, 2023.

The following table presents maturities of operating lease liabilities on an undiscounted basis as of June 30, 2025 (\$ in thousands):

For the years ending June 30,	
2026	\$ 173
2027	178
2028	182
2029	187
2030	191
Thereafter	146
<b>Total</b>	<b>1,058</b>
Less imputed interest	(117)
<b>Total lease liability - operating</b>	<b>941</b>
Less: lease liability - operating, current portion	138
<b>Lease liability - operating, long-term portion</b>	<b>\$ 803</b>

The lease term and the discount rate for the lease at June 30, 2025 are 5.8 years and 4.00%, respectively. The total lease expenses were \$168 thousand and \$167 thousand for the years ended June 30, 2025 and 2024, respectively. The variable costs for common area operating expenses and electricity were \$231 thousand and \$240 thousand for the years ended June 30, 2025 and 2024, respectively.

## Note 7 – Warrants to Purchase Common Stock

In connection with the public offering completed on March 26, 2025, the Company issued warrants to the underwriter to purchase up to 31,427 shares, representing 5.0% of the total shares sold in the offering (including any shares issued pursuant to the underwriter's over-allotment option). The warrants are exercisable at a price of \$6.04 per share, which is equal to 115% of the public offering price of \$5.25 per share.

The following warrants to purchase common stock were outstanding as of June 30, 2025:

Number of Shares	Exercise Price	Expiration Date
279,255	\$ 2.00	June 22, 2026
37,433	2.00	June 28, 2026
11,500	2.00	July 1, 2026
27,032	3.00	December 22, 2027
4,588	3.00	January 10, 2028
6,720	3.00	March 31, 2028
44,933	3.00	May 10, 2028
131,427	6.04	March 26, 2030
542,888		

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## Note 8 – Income Taxes

The Company reported a pre-tax loss of \$3.0 million and \$4.5 million for the years ended June 30, 2025 and 2024, respectively.

There is no federal or state provision for income taxes because the Company has incurred operating losses since inception and is in a full valuation allowance position. Deferred income taxes reflect the net tax effects primarily of the net operating losses and the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. As of June 30, 2025, the Company has approximately \$7.6 million in federal net operating loss carryforwards available to offset future taxable income.

Deferred tax assets are calculated using combined federal and state statutory tax rates. For federal purposes, the statutory corporate tax rate is 21%, as set by the Tax Cuts and Jobs Act of 2017 and effective through 2025. The California state income tax rate is 7%, net of federal deduction. Accordingly, the combined effective rate applied to statutory income tax rates is offset by a change in the deferred income tax valuation allowance of approximately 28%.

## Note 9 – Subsequent Events

On August 4, 2025, the Company appointed Christopher Stewart as its Chief Financial Officer. Pursuant to Mr. Stewart’s employment agreement, was granted 110,000 stock options and 55,000 restricted stock units (“RSUs”). The stock options have an exercise price of \$11.04, with 25% of the stock options vesting on the twelve (12) month anniversary of Mr. Stewart’s employment with the Company. The balance of the stock options will vest in equal monthly increments, on each monthly anniversary of Mr. Stewart’s employment start date with the Company, over the next thirty-six (36) months. The stock options expire on the 10-year anniversary of their vesting date. 25% of the shares underlying the RSUs will vest at the end of the fiscal quarter following the twelve (12) month anniversary of Mr. Stewart’s employment start date with the Company, with a pro-rated amount for any partial quarter preceding the twelve (12) month anniversary. The balance of the RSUs will vest in equal quarterly increments, with a pro-rated amount for any partial final quarter. Each restricted stock unit represents the contingent right to receive, at settlement, one share of common stock.

On June 6, 2025, the Company entered into a lease agreement for additional corporate office space in Goleta, California. The lease was cancellable unless certain conditions were met by the lessor. On September 5, 2025, those conditions were met and the lease became non-cancellable. The lease has a term of 5 years commencing in September 2025, with a total lease commitment of approximately \$476 thousand. The Company is currently evaluating the accounting impact of this agreement under ASC 842, Leases.

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## PART II - INFORMATION NOT REQUIRED IN PROSPECTUS

### Item 13. Other Expenses of Issuance and Distribution

The following table sets forth all expenses to be paid by the Registrant, other than estimated placement agents’ fees, in connection with our public offering. All amounts shown are estimates except for the SEC registration fee and the FINRA filing fee:

SEC registration fee	\$ 695.30
FINRA filing fee	\$ -
Legal fees and expenses	\$ 30,000
Accounting fees and expenses	\$ 5,000
Transfer agent and registrar fees	\$ -
Miscellaneous fees and expenses	\$ -
<b>Total</b>	<b>\$ 35,695.30</b>

### Item 14. Indemnification of Directors and Officers

Our certificate of incorporation provides that all directors, officers, employees and agents of the registrant shall be entitled to be indemnified by us to the fullest extent permitted by Section 145 of the Delaware General Corporation Law.

Section 145 of the Delaware General Corporation Law concerning indemnification of officers, directors, employees and agents is set forth below.

“§ 145. Indemnification of officers, directors, employees and agents; insurance.

(a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person’s conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person’s conduct was unlawful.

(b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is



or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

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(c) (1) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. For indemnification with respect to any act or omission occurring after December 31, 2020, references to "officer" for purposes of this paragraphs (c)(1) and (2) of this section shall mean only a person who at the time of such act or omission is deemed to have consented to service by the delivery of process to the registered agent of the corporation pursuant to § 3114(b) of Title 10 (for purposes of this sentence only, treating residents of this State as if they were nonresidents to apply § 3114(b) of Title 10 to this sentence).

(2) The corporation may indemnify any other person who is not a present or former director or officer of the corporation against expenses (including attorneys' fees) actually and reasonably incurred by such person to the extent he or she has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein.

(d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer of the corporation at the time of such determination:

(1) By a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum; or

(2) By a committee of such directors designated by majority vote of such directors, even though less than a quorum; or

(3) If there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion; or

(4) By the stockholders.

(e) Expenses (including attorneys' fees) incurred by an officer or director of the corporation in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the corporation or by persons serving at the request of the corporation as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.

(f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to or repeal or elimination of the certificate of incorporation or the bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.

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(g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section.

(h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

(i) For purposes of this section, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this section.

(j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation's obligation to advance expenses (including attorneys' fees)."

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is,

therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

In accordance with Section 102(b)(7) of the DGCL, our certificate of incorporation, will provide that no director shall be personally liable to us or any of our stockholders for monetary damages resulting from breaches of their fiduciary duty as directors, except to the extent such limitation on or exemption from liability is not permitted under the DGCL unless they violated their duty of loyalty to the company or its stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized unlawful payments of dividends, unlawful stock purchases or unlawful redemptions, or derived improper personal benefit from their actions as directors. The effect of this provision of our certificate of incorporation is to eliminate our rights and those of our stockholders (through stockholders' derivative suits on our behalf) to recover monetary damages against a director for breach of the fiduciary duty of care as a director, including breaches resulting from negligent or grossly negligent behavior, except, as restricted by Section 102(b)(7) of the DGCL. However, this provision does not limit or eliminate our rights or the rights of any stockholder to seek non-monetary relief, such as an injunction or rescission, in the event of a breach of a director's duty of care.

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If the DGCL is amended to authorize corporate action further eliminating or limiting the liability of directors, then, in accordance with our certificate of incorporation, the liability of our directors to us or our stockholders will be eliminated or limited to the fullest extent authorized by the DGCL, as so amended. Any repeal or amendment of provisions of our certificate of incorporation limiting or eliminating the liability of directors, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to further limit or eliminate the liability of directors on a retroactive basis.

Our certificate of incorporation will also provide that we will, to the fullest extent authorized or permitted by applicable law, indemnify our current and former officers and directors, as well as those persons who, while directors or officers of our corporation, are or were serving as directors, officers, employees or agents of another entity, trust or other enterprise, including service with respect to an employee benefit plan, in connection with any threatened, pending or completed proceeding, whether civil, criminal, administrative or investigative, against all expense, liability and loss (including, without limitation, attorney's fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred or suffered by any such person in connection with any such proceeding. Notwithstanding the foregoing, a person eligible for indemnification pursuant to our certificate of incorporation will be indemnified by us in connection with a proceeding initiated by such person only if such proceeding was authorized by our board of directors, except for proceedings to enforce rights to indemnification.

The right to indemnification conferred by our certificate of incorporation is a contract right that includes the right to be paid by us the expenses incurred in defending or otherwise participating in any proceeding referenced above in advance of its final disposition; provided, however, that, if the DGCL requires, an advancement of expenses incurred by our officer or director (solely in the capacity as an officer or director of our corporation) will be made only upon delivery to us of an undertaking, by or on behalf of such officer or director, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified for such expenses under our certificate of incorporation or otherwise.

The rights to indemnification and advancement of expenses will not be deemed exclusive of any other rights which any person covered by our certificate of incorporation may have or hereafter acquire under law, our certificate of incorporation, our bylaws, an agreement, vote of stockholders or disinterested directors, or otherwise.

Any repeal or amendment of provisions of our certificate of incorporation affecting indemnification rights, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing at the time of such repeal or amendment or adoption of such inconsistent provision with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision. Our certificate of incorporation will also permit us, to the extent and in the manner authorized or permitted by law, to indemnify and to advance expenses to persons other than those specifically covered by our certificate of incorporation.

Our bylaws, which we intend to adopt immediately prior to the closing of this offering, include the provisions relating to advancement of expenses and indemnification rights consistent with those set forth in our certificate of incorporation. In addition, our bylaws provide for a right of indemnity to bring a suit in the event a claim for indemnification or advancement of expenses is not paid in full by us within a specified period of time. Our bylaws also permit us to purchase and maintain insurance, at our expense, to protect us and/or any director, officer, employee or agent of our corporation or another entity, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Any repeal or amendment of provisions of our bylaws affecting indemnification rights, whether by our board of directors, stockholders or by changes in applicable law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing thereunder with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision.

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### Articles of Incorporation and Bylaws

The following sections from our amended and restated articles of incorporation discuss the indemnification provided thereby.

To the fullest extent permitted by the DGCL as the same exists or as may hereafter be amended from time to time, a director of the Company shall not be personally liable to the Company or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Company shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Subject to any provisions in the Bylaws of the Company related to indemnification of directors of the Company, the Company shall indemnify, to the fullest extent permitted by applicable law, any director of the Company who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she is or was a director of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding. The Company shall be required to indemnify a person in connection with a Proceeding (or part thereof) initiated by such person only if the Proceeding (or part thereof) was authorized by the Board of Directors.

The Company shall have the power to indemnify, to the extent permitted by applicable law, any officer, employee or agent of the Company who was or is a party or is



threatened to be made a party to any Proceeding by reason of the fact that he or she is or was a director, officer, employee or agent of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

Our bylaws provide that the Company may indemnify and advance litigation expenses to its directors, officers, employees, and agents to the extent permitted by law, the Company's Articles or Bylaws, and shall indemnify and advance litigation expenses to its directors, officers, employees and agents to the extent required by law, the Company's Articles of Incorporation or Bylaws. The Company's obligations of indemnification, if any, shall be conditioned on the Company receiving prompt notice of the claim and the opportunity to settle and defend the claim. The Company may, to the extent permitted by law, purchase and maintain insurance on behalf of an individual who is or was a director, officer, employee, or agent of the Company.

#### **Item 15. Recent Sales of Unregistered Securities**

During the last three years, the Company has not issued unregistered securities to any person, except as described below. None of these transactions involved any underwriters, underwriting discounts, or commissions, except as specified below, or any public offering, and, unless otherwise indicated below, the Registrant believes that each transaction was exempt from the registration requirements of the Securities Act by virtue of Section 4(a)(2) thereof and/or Rule 506 of Regulation D promulgated thereunder, and/or Regulation S promulgated thereunder regarding offshore offers and sales. All recipients had adequate access, though their relationships with the Registrant, to information about the Registrant.

On November 7, 2022, the Company issued 150,000 shares of common stock to a consultant for providing consulting services to the Company.

On December 22, 2022, we issued an aggregate of 517,000 shares of our common stock to 21 accredited investors, for aggregate gross proceeds of \$1,551,000 (the "2022 Private Offering").

On January 10, 2023, we held a second close of the 2022 Private Offering, pursuant to which we issued an aggregate of 214,667 shares of our common stock for aggregate gross proceeds of \$644,000.

On March 31, 2023, we held the third closing of the 2022 Private Offering, pursuant to which we issued an aggregate of 715,665 shares of our common stock for aggregate gross proceeds of \$2,147,000.

On May 10, 2023, we held the final closing of the 2022 Private Offering, pursuant to which we issued an aggregate of 570,166 shares of our common stock for aggregate gross proceeds of \$1,710,500.

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#### **Item 16. Exhibits and Financial Statement Schedules**

<b>Exhibit No.</b>	<b>Description</b>
1.1	<a href="#">Underwriting Agreement dated March 26, 2025, by and between the Company and Craig-Hallum Capital Group LLC (incorporated by reference to the Current Report on Form 8-K dated March 28, 2025)</a>
2.1	<a href="#">Agreement and Plan of Merger and Reorganization among Parc Investments, Inc., Aeluma Operating Co. and Biond Photonics, Inc. (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
3.1	<a href="#">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 (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
3.2	<a href="#">Amended and Restated certificate of incorporation, filed with the Secretary of State of the State of Delaware on June 22, 2021 (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
3.3	<a href="#">Amended and Restated Bylaws. (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
4.1	<a href="#">Form of Lock Up Agreement (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
4.2	<a href="#">Form of Placement Agent Warrant (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
4.3	<a href="#">Description of Securities (incorporated by reference to the annual Report on Form 10-K filed on September 25, 2023)</a>
4.4	<a href="#">Underwriter Warrant (incorporated by reference to the Current Report on Form 8-K filed on March 28, 2025)</a>
5.1	<a href="#">Opinion of Hunter Taubman Fischer &amp; Li LLC (1)</a>
10.2	<a href="#">Form of Post-Merger Indemnification Agreement (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
10.3	<a href="#">Form of Pre-Merger Indemnification Agreement (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
10.4	<a href="#">Form of Subscription Agreement, dated June 22, 2021, by and between the Company and the parties thereto (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
10.5	<a href="#">Registration Rights Agreement, dated June 22, 2021, by and between the Company and the parties thereto (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
10.6+	<a href="#">2021 Equity Incentive Plan and form of award agreements (incorporated by reference to the Current Report on Form 8-K filed on June 28, 2021)</a>
10.7	<a href="#">Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. Klamkin (incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021)</a>
10.9	<a href="#">Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated December 21, 2020 (incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021)</a>
10.10	<a href="#">Advisor Restricted Stock Purchase Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated June 10, 2021 (incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021)</a>
10.11	<a href="#">Advisory Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated December 31, 2020 (incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021)</a>
10.12	<a href="#">Advisory Agreement between Biond Photonics, Inc. and Mr. DenBaars, dated June 10, 2021 (incorporated by reference to the Registration Statement on Form S-1/A filed on October 15, 2021)</a>
10.14	<a href="#">Director Agreement by and between the Company and John Paglia (incorporated by reference to the Current Report on Form 8-K filed on November 30, 2021)</a>
10.15	<a href="#">Subscription Agreement (incorporated by reference to the Current Report on Form 8-K filed on December 23, 2022)</a>
10.16	<a href="#">Registration Rights Agreement (incorporated by reference to the Current Report on Form 8-K filed on December 23, 2022)</a>
10.17	<a href="#">Form of Note Purchase Agreement (incorporated by reference to the Current Report on Form 8-K filed on August 6, 2024)</a>
10.18	<a href="#">Form of Note (incorporated by reference to the Current Report on Form 8-K filed on August 6, 2024)</a>
10.19	<a href="#">Independent Director Agreement with Craig Ensley, effective as of December 14, 2023 (incorporated by reference to the Registration Statement on Form S-1/A filed on October 7, 2024)</a>
10.20	<a href="#">Director Agreement by and between the Company and Mike Byron (incorporated by reference to the Current Report on Form 8-K filed on February 26, 2025)</a>
10.21	<a href="#">Indemnification Agreement by and between the Company and Mike Byron (incorporated by reference to the Current Report on Form 8-K filed on February 26, 2025)</a>

10.22	<a href="#">Form of Non-Qualified Option to Purchase Common Stock by and between the Company and Mike Byron (incorporated by reference to the Current Report on Form 8-K filed on February 26, 2025)</a>
10.23	<a href="#">Employment Agreement dated August 4, 2025, by and between the Company and Christopher Stewart (incorporated by reference to the Current Report on Form 8-K filed on August 8, 2025)</a>
16.1	<a href="#">Letter from Raich Ende Malter &amp; Co. LLP as to the change in certifying accountant, dated June 28, 2021***</a>

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21.1	<a href="#">Subsidiaries of the Registrant**</a>
23.1	Consent of Rose, Snyder & Jacobs LLP
23.2	<a href="#">Consent of Hunter Taubman Fischer &amp; Li LLC (Included in Exhibit 5.1)</a>
101.INS	Inline XBRL Instance Document for the year ended June 30, 2025
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).
107	<a href="#">Filing Fees Exhibit<sup>(1)</sup></a>

+ Indicates a management contract or any compensatory 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 filed on July 6, 2023.

### Item 17. Undertakings

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 a 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;

(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) 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 (§230.430B of this chapter):

(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

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(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.

(5) 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.

The undersigned Registrant hereby undertakes to provide to the Underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the Underwriters to permit prompt delivery to each purchaser.

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 Act 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 Act and will be governed by the final adjudication of such issue.

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**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 October 6, 2025.

**AELUMA, INC.**

By: /s/ Jonathan Klamkin  
Name: Jonathan Klamkin  
Title: Chief Executive Officer & Chairman

By: /s/ Christopher Stewart  
Name: Christopher Stewart  
Title: Chief Financial Officer & Principal Financial Officer

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.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
<u>/s/ Jonathan Klamkin</u> Jonathan Klamkin	President, Chief Executive Officer, and Chairman (Principal Executive Officer)	October 6, 2025
<u>/s/ Christopher Stewart</u> Christopher Stewart	Principal Financial Officer (Principal Financial Officer)	October 6, 2025
<u>/s/ Craig Ensley</u> Craig Ensley	Director	October 6, 2025
<u>/s/ Steven DenBaars</u> Steven DenBaars	Director	October 6, 2025
<u>/s/ John Paglia</u> John Paglia	Director	October 6, 2025
<u>/s/ Mike Byron</u> Mike Byron	Director	October 6, 2025