



Luminar

2024 Annual Report
Luminar Technologies, Inc.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2024
or
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____
Commission file number 001-38791

LUMINAR TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

83-1804317

(State or other jurisdiction of incorporation or organization)

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

2603 Discovery Drive Suite 100 Orlando Florida

32826

(Address of Principal Executive Offices)

(Zip Code)

(800) 532-2417

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading	Name of each exchange on which
Class A common stock, par value of \$0.0001 per share	LAZR	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports); and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>

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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately \$529.1 million as of June 28, 2024 (the last business day of the registrant's most recently completed second fiscal quarter) based upon the closing sale price on The Nasdaq Stock Market reported for such date. Shares of Common Stock held by each officer and director and by each person who may be deemed to be an affiliate have been excluded. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 14, 2025, the registrant had 37,516,619 shares of Class A common stock, par value \$0.0001 per share and 4,872,578 shares of Class B common stock, par value \$0.0001 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates by reference certain information from the registrant's definitive proxy statement (the "Proxy Statement") relating to its 2025 Annual Meeting of Stockholders. The Proxy Statement will be filed with the U.S. Securities and Exchange Commission within 120 days after the end of the fiscal year to which this report relates.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this “Form 10-K”) includes forward-looking statements in addition to historical information. These forward-looking statements are included throughout this Form 10-K, including in the sections entitled “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and in other sections of this Form 10-K. These statements reflect the current views of management with respect to future events and our financial performance. These forward-looking statements include statements regarding the estimated costs and expected benefits of the restructuring plan initiated in May 2024, including the additional actions taken under the restructuring plan in September 2024, product plans, future growth, sales estimates, market opportunities, strategic initiatives, industry positioning, customer acquisition and retention, revenue growth, anticipated impacts on our business of current worldwide economic uncertainty, inflation, monetary policy shifts, and other disruptions due to geopolitical conditions and global health emergencies. In some cases, you can identify these statements by forward-looking words such as “outlook,” “believes,” “expects,” “future,” “potential,” “continues,” “may,” “will,” “should,” “could,” “seeks,” “approximately,” “predicts,” “intends,” “plans,” “estimates,” “anticipates” or the negative version of these words or other comparable words or phrases, but the absence of these words does not mean that a statement is not forward-looking. These forward-looking statements, which are subject to risks, uncertainties and assumptions about us, may include projections of our future financial performance, our anticipated growth strategies and anticipated trends in our business.

These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements, including our history of losses and our expectation that we will continue to incur significant expenses, including substantial research and development (“R&D”) costs, and continuing losses for the foreseeable future as well as our limited operating history which makes it difficult to evaluate our future prospects and the risks and challenges we may encounter; our strategic initiatives which may prove more costly than we currently anticipate and potential failure to increase our revenue to offset these initiatives; whether our LiDAR products are or will continue to be selected for inclusion in autonomous driving or advanced driving assistance systems (“ADAS”) by automotive original equipment manufacturers (“OEMs”) or their suppliers, and whether we will be de-selected by any customers; the lengthy period of time from a major commercial win to implementation and the risks of cancellation or postponement of the contract or unsuccessful implementation; potential inaccuracies in our forward-looking estimates of certain metrics, our future cost of goods sold (“COGS”) and bill of materials (“BOM”) and total addressable market; the discontinuation, lack of success of our customers in developing and commercializing products using our solutions or loss of business with respect to a particular vehicle model or technology package and whether end automotive consumers will demand and be willing to pay for such features; our ability to successfully fund our growth if there are considerable delays in product introductions by us or our OEM customers may face with their products; our inability to reduce and control the cost of the inputs on which we rely, which could negatively impact the adoption of our products and our profitability; the effect of continued pricing pressures, competition from other LiDAR manufacturers, OEM cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs which may result in lower than anticipated margins, or losses, which may adversely affect our business; the effect of general economic conditions, including inflation, recession risks and rising interest rates, generally and on our industry and us in particular, including the level of demand and financial performance of the autonomous vehicle industry and the decline in fair value of available-for-sale debt securities in a rising interest rate environment; market adoption of LiDAR as well as developments in alternative technology and the increasingly competitive environment in which we operate, which includes established competitors and market participants that have substantially greater resources; our ability to achieve technological feasibility and commercialize our software products and the requirement to continue to develop new products and product innovations due to rapidly changing markets and government regulations of such technologies; our ability to manage our growth and expand our business operations effectively, including into international markets, such as China, which exposes us to operational, financial, regulatory and geopolitical risks; changes in our government contracts business and our defense customers’ business due to political change and global conflicts; adverse impacts due to limited availability and quality of materials, supplies, and capital equipment, or dependency on third-party service providers and single-source suppliers; the project-based nature of our orders, which can cause our results of operations to fluctuate on a quarterly and annual basis; whether we will be able to successfully transition our engineering designs into high volume manufacturing, including our ability to transition to an outsourced manufacturing business model and whether we and our outsourcing partners and suppliers can successfully operate complex machinery; whether we can successfully select, execute or integrate our acquisitions; defects, reliability and other issues with our products which could reduce market adoption of our new products, limit our ability to manufacture, damage our reputation and expose us to product liability, warranty and other claims; our ability to maintain and adequately manage our inventory; our ability to maintain an effective system of internal control over financial reporting; our ability to protect and enforce our intellectual property rights; availability of qualified personnel, loss of highly skilled personnel; the impact of inflation and our stock price on our ability to hire and retain highly skilled personnel; the amount and timing of future sales and whether the average selling prices of our products could decrease rapidly over the life of the product as well as our dependence on a few key customers, who are often large

corporations with substantial negotiating power; our ability to establish and maintain confidence in our long-term business prospects among customers and analysts and within our industry; whether we are subject to negative publicity; the effects of infectious diseases, health epidemics, pandemics and natural disasters on Luminar's business; interruption or failure of our information technology and communications systems; cybersecurity risks to our operational systems, security systems, infrastructure, integrated software in our LiDAR solutions; market instability exacerbated by geopolitical conflicts, including the Israel-Hamas war and the conflict between Russia and Ukraine; trade disputes with China and other countries, including the effect of sanctions and trade restrictions, such as tariffs imposed by the U.S. government and any countermeasures by other governments in response to such tariffs , that may affect supply chain or sales opportunities or overall demand; the large amount of our outstanding indebtedness and our ability to comply with covenants contained in the agreements governing our indebtedness; our ability to access sources of capital to repay our indebtedness, and finance operations and growth; our ability to maintain compliance with the Nasdaq continued listing standards for the listing of our Class A common stock; and those other factors discussed in the section entitled "Risk Factors" in this Form 10-K. You should specifically consider the numerous risks outlined in the section of this Form 10-K entitled "Risk Factors." Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, level of activity, performance or achievements. We undertake no obligation to update any forward-looking statements made in this Form 10-K to reflect events or circumstances after the date of this Form 10-K or to reflect new information or the occurrence of unanticipated events, except as required by law.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely upon these statements.

PART I
ITEM 1. BUSINESS.

Overview

Luminar is a technology company specializing in advanced Light Detection and Ranging (LiDAR) hardware and software solutions to enable the world's safest and smartest vehicles. Over the past decade, Luminar has been developing proprietary LiDAR hardware, core semiconductor components and software in-house to meet the demanding performance, safety, reliability and cost requirements to enable next-generation safety and autonomous capabilities for passenger and commercial vehicles, as well as other adjacent markets.

The global automotive and mobility sector is increasingly focused on safety and autonomy, specifically next-generation advanced driver assistance systems, or ADAS, and highway autonomy for passenger and commercial vehicles. Our LiDAR technology provides increased situational awareness in a broad range of driving environments through improved and higher confidence detection and planning at all vehicle speeds. Beyond sensor hardware, our product portfolio has expanded to include semiconductor components of our LiDAR that have utility in adjacent markets, in-development software capabilities such as perception and high-definition "3D" mapping, all of which we anticipate will monetize the ecosystem of improved safety and autonomy created by our LiDAR.

Our Markets

The Society of Automotive Engineers ("SAE") defines levels of vehicle automation as follows, which SAE updates from time to time:

- **Level 0—No Driving Automation:** In this level, the human is fully responsible for all dynamic driving tasks ("DDT") at all times, even if an active safety system assists in the task. "L0" is defined as driver support features that are limited to warnings or momentary emergency intervention. Examples of warnings include blind spot warning or lane departure warnings. Examples of features with momentary assistance include automated emergency braking ("AEB") and lane keep assist ("LKA").
- **Level 1—Driver Assistance:** In this level, while the human is fully responsible for all DDT at all times, an active safety system may assist by executing either the longitudinal or the lateral vehicle motion control subtask, and disengages immediately upon driver request. Examples include lane centering support ("LCS") or the more widely adopted adaptive cruise control ("ACC"). These features are viewed as comfort features, easing the driving load from the driver during extended highway drives.
- **Level 2—Partial Driving Automation:** In this level, the human is fully responsible for all DDT at all times, even if an active safety system assists in the task. When the controls from an L1 system are operated by the vehicle simultaneously, such as LCS and ACC, the system is then classified as L2.

The term L2+, while not an officially recognized term, is often used for today's higher capability L2 systems, many of which add a driver monitoring system, such as camera or steering wheel sensing to ensure the human driver remains engaged, but require that the driver remain attentive at all times. This is considered by safety experts as a challenging phase because the systems may work well for long periods of time, and can lull drivers into trust and complacency.

- **Level 3—Conditional Driving Automation:** In this level, the automated driving system ("ADS") performs the entire DDT while engaged. The driver is responsible to verify the operational readiness of the ADS, determine whether to engage the system, and becomes the fallback-ready user when the ADS is engaged. The ADS permits engagement and operation only within its operational design domain ("ODD"). However, the ODD is often limited to highway applications within certain speed parameters. An example is a traffic jam assist feature that allows the driver to stop paying attention for short periods of time at lower speeds.
- **Level 4—High Driving Automation:** In this level, the ADS performs the entire DDT while engaged. The driver is responsible to verify the operational readiness of the ADS, determine whether to engage the system, and becomes a passenger when the ADS is engaged (when physically present in the vehicle). The ADS permits engagement and operation only within its ODD. The ODD is expanded in this level to include numerous different driving environments, such as highway and urban.
- **Level 5—Full Driving Automation:** In this level, the ADS performs the entire DDT while engaged. It is the designation for vehicles that, when placed in automated driving mode, can drive everywhere and in all conditions without human intervention or even occupants.

We believe the market is currently segmented in two distinct categories: (1) ADAS (L0 / L1 / L2 / L2+) and (2) autonomous driving, or AD, (L3 / L4 / L5). Within these two segments, we believe the largest near-term business opportunities

exist for technologies that enhance, not replace, the driver, specifically in ADAS (L2+) and conditional highway autonomy applications (L3). We believe our products meaningfully improve ADAS functionality and are also key enablers for highway autonomy.

ADAS and Proactive SafetyTM

ADAS standards are primarily driven by both the European and North American markets. The European New Car Assessment Program (“NCAP”), a voluntary vehicle safety performance assessment program that uses a star safety rating system, requires a minimum level of crash mitigation functionality such as automatic emergency braking (“AEB”) (for vehicles, pedestrians, and cyclists), lane keep assist (“LKA”), speed alert systems and other ADAS features for a vehicle to have a 5-star rating. Furthermore, we believe the European Union may be moving toward mandates of certain of these advanced functions.

Until recently, the United States (“U.S.”) was less focused on mandates and instead allowed the U.S. New Car Assessment Program (known as the “Stars on Cars” program) and designations such as the Insurance Institute for Highway Safety “Top Safety Pick” and “Top Safety Pick+” to drive adoption of vehicles with ADAS technologies and provide consumers with an understanding of a vehicle’s crash avoidance capability. In 2020, in conjunction with the National Highway Traffic Safety Administration (“NHTSA”), 20 automakers announced a voluntary effort to equip almost all new passenger vehicles sold in the US with a low-speed AEB system, including forward-collision warning, by mid-2023.

In 2024, NHTSA published a Final Rule adopting new Federal Motor Safety Standard No. 127, which mandates advanced higher speed, no-contact AEB and Pedestrian AEB (“PAEB”) systems on new cars and light trucks. All new vehicles must comply with all requirements in this Final Rule by 2029. The Federal Motor Carrier Safety Administration (“FMCSA”) may also follow NHTSA’s effort, as FMCSA had also introduced proposed rulemaking in 2023 with NHTSA to mandate AEB in heavy trucks. These new safety standards will likely require additional hardware and software to meet performance requirements.

With global safety rating programs being the main drivers of adoption and pressure on original equipment manufacturers (“OEMs”) competing to deliver more safety and comfort features to their customers, we believe it is reasonable to expect near complete adoption of at least some ADAS functionalities in new vehicles manufactured and sold in developed markets such as Europe, the United States, Japan, and South Korea by 2026. We expect adoption rates to increase significantly in China as well.

According to the World Health Organization, the number of fatalities globally on roadways still exceeds one million annually and the global macroeconomic costs of vehicle accidents has been estimated at more than \$1 trillion globally. While the increasing application of existing ADAS features should help reduce the number of accidents and fatalities, we believe there is significant room for improvement in these technologies. In particular, we believe there is a significant opportunity to reduce collisions with a capable LiDAR sensing system that increases the quality and reliability of the perception data collected by vehicles and enables improved ADAS functionality in a wider range of environmental conditions, such as at higher speeds and at night.

We have been developing a turn-key ADAS system known as Proactive SafetyTM, which leverages our core LiDAR hardware and software technologies. Intended functionality for Proactive SafetyTM that is currently under development includes AEB, automatic emergency steering, and ACC. If implemented, we expect these functionalities to represent a new generation of vehicle safety that enables more accident avoidance rather than merely mitigation of crash severity.

Highway Autonomy

Our focus since inception has been to enable ubiquitous vehicle safety and autonomy. We view Highway Autonomy, in combination with Proactive SafetyTM, as providing the most value to the end consumer of vehicles for the foreseeable future. The market appears to be trending in this direction, targeting hands-off and eyes-off operations in a more controlled setting, such as highways, than the highly complex urban environment.

Historically, there was a significant focus on investment and development of Level 4 robo-taxi solutions; however, this is proving to be a much more complex and expensive challenge to solve than many companies anticipated. As a result, in the past few years, the industry experienced a retrenching of efforts in the robo-taxi space, which we believe has validated our focus from the outset on improving ADAS functionality and enabling highway autonomy. We continue to believe that the passenger vehicles and commercial vehicle sectors focused on L2+/L3 applications will be the greatest source of demand for our products over the next several years.

Passenger Vehicle Market

The passenger vehicle market is very large. We expect that approximately 100 million new passenger and commercial vehicles will be manufactured annually, on average, through the end of this decade. The automotive industry is looking to achieve widespread adoption of next-generation safety and autonomous features in all vehicles for the benefits of safety, economics, and accessibility of transportation. We expect a ramp up of LiDAR and our technology adoption over time as

ADAS and autonomous functionalities mature, hardware costs and prices are reduced, and consumers become more familiar with the full benefits and capabilities of a safe autonomy system. As such, we believe there is a substantial market opportunity for our LiDAR products in the passenger vehicle segment.

Commercial Trucking Market

The amount of goods transported by trucking globally continues to rise year-over-year. The application of ADAS technology continues to grow and the interest in autonomy for commercial transport remains high. The business case for trucking highway autonomy beyond improved safety also includes: lower operating costs, increased vehicle utilization, and more time spent on the road. Although the number of commercial vehicles manufactured annually is a fraction of passenger vehicles, we believe commercial vehicles require more sensor hardware to enable a similar level of ADAS and autonomous functionalities; for example, 2+ LiDARs per commercial truck versus 1 per passenger vehicle. As such, we believe there is also a substantial market opportunity for our LiDAR products in the commercial trucking segment.

Robo-Taxi Market

The robo-taxi industry remains an area of investment and development by leading technology companies and mainstays from the automotive industry. The timeline for widespread deployment of robo-taxis continues to be pushed out due to the complexity of the technical requirements, specifically a sensing and compute solution that must anticipate every possible mixed-traffic scenario, as well as the need for regional and federal government support and funding for infrastructure. With this, there has been a near-term contraction and retrenchment of industry participants in the robo-taxi market. However, we continue to believe the robo-taxi market segment remains an important market for LiDAR, both for near-term validation and for long-term demand.

Adjacent Markets

Adjacent markets, including but not limited to last mile delivery, aerospace and defense, robotics and security offer additional use cases for which our technology is well suited. Our goal is to scale first within our core markets and utilize our robust solutions to best serve these adjacent markets where it makes sense for us and our partners.

Our Products

Our LiDAR and other products are described in further detail below:

Hardware

Iris: Our Iris LiDAR and variants combine a 1550nm laser, transmitter, and receiver and provide long-range sensing that we expect will meet OEM specifications for advanced safety and autonomy. This technology provides automotive-grade, efficient, and affordable solutions that are scalable, reliable, and optimal for series production. Our LiDAR sensors are dynamically configurable dual-axis scan sensors that detect objects up to 600 meters away over a horizontal field of view of 120° and a software configurable vertical field of view of up to 30°. This provides high point densities in excess of 200 points per square degree that enables long-range detection, tracking, and classification over the whole field of view. Iris and its variants have been refined to meet the size, weight, cost, power, and reliability requirements of automotive qualified series production sensors.

Iris and its variants feature our vertically integrated receiver, detector, and application-specific integrated circuit (“ASIC”) solutions that have been developed by our Advanced Technologies & Services (“ATS”) segment companies—Optogration, Freedom Photonics, and Black Forest Engineering, collectively referred to as Luminar Semiconductor, Inc. (“Luminar Semiconductor” or “LSI”). We refer to the internal development of these key sub-component technologies as our “chip-level up” strategy, which we believe gives us a significant advantage in the development of our product roadmap and a competitive moat in the LiDAR industry.

In April 2024, we achieved our start of production (“SOP”) for Volvo Cars and began delivering our Iris LiDAR sensors for the Volvo EX90. Our LiDAR sensors on initial vehicles are first being used for road data collection and system training, and will later be activated as part of the vehicle’s active safety system.

Luminar Halo: In 2024, we unveiled our next-generation LiDAR product, Luminar Halo, which is being designed for mass adoption by mainstream consumer vehicles. Building off the same 1550nm laser architecture of Iris, Luminar Halo will incorporate four next-generation chip technologies from Luminar Semiconductor. These advancements are expected to enable a 4x improvement in performance, a 3x reduction in size, a 2x improvement in thermal efficiency, and more than a 2x improvement in cost. Luminar Halo is being designed to provide backwards system compatibility to existing customers of our Iris LiDAR. We expect it will also boast a sleeker integration profile, being under 1 inch in height, under 1 kilogram in weight, and using approximately 10 watts of power consumption. We are currently targeting SOP of Luminar Halo by 2027.

We recently began transitioning from investing and developing multiple LiDAR hardware products simultaneously to meet different customers' needs to a singular technology platform – Luminar Halo – that can meet all customer requirements. As part of this effort, we discontinued development of our Iris+ product, and essentially all our engineering and development efforts with customers are shifting to Luminar Halo. This narrowing of product scope is intended to further streamline our business model to drive efficient execution and reduce costs.

Luminar Semiconductor, Inc.

In 2023, we announced the combination of our chip design subsidiary companies, Black Forest Engineering, Optogration, and Freedom Photonics, into a unified entity, Luminar Semiconductor, Inc. Our strategy in bringing these advanced receiver, laser, and processing chip technologies in-house was to accelerate our LiDAR product roadmap, strengthen our competitive moat, and secure and industrialize our LiDAR supply chain. With these acquisitions, Luminar Semiconductor aims to leverage our investment in high-performance, specialized semiconductors beyond LiDAR to power applications for customers across a broad range of sectors from communications to medical to aerospace.

In 2024, we augmented Luminar Semiconductor with the acquisition of EM4, LLC (“EM4”), a designer, manufacturer, and seller of packaged photonic components and sub-systems for aerospace and industrial markets, which is expected to accelerate our strategy to package lasers, detectors, and ASICs.

Operations of Luminar Semiconductor, and the acquired companies Black Forest Engineering, Optogration, Freedom Photonics and EM4 have been included in our ATS segment of reporting since their respective acquisition dates.

Software

Software presently under development includes the following:

Core Sensor Software: Our LiDAR sensors are configurable and capture valuable information extracted from the raw point-cloud that can be used to promote the development and performance of perception software. Our core sensor software features are being designed to help our commercial partners to operate, integrate, and control our LiDAR sensors, and enrich the sensor data stream before perception processing.

Perception and Mapping Software: Our perception software is being designed to transform our LiDAR point-cloud data into actionable information about the environment surrounding the vehicle. This information includes classifying static objects, such as lane markings, road surface, curbs, signs and buildings, as well as dynamic objects, such as, other vehicles, pedestrians, cyclists and animals. Through internal development, as well as the acquisition of certain assets of Solstice (a.k.a. Civil Maps), we expect to be able to utilize our point-cloud data to achieve precise vehicle localization and create and provide continuous updates to a high definition 3D map of a vehicle's environment.

Driving Functions Software: Driving functions software builds on Core Sensor Software and Perception capabilities to deliver control functions for a vehicle to avoid or mitigate collision. Driving functions are expected to also incorporate data from radars and cameras to enable additional features, such as cross traffic collision avoidance, traffic sign assist, emergency braking, and emergency steering.

Tools/Other: These products include delivery of certain data sets and other information as well as tools that help visualize and configure the sensor, replay recorded data, and simulate the sensor.

We refer to our full-stack software platform for safety and autonomy that is expected to enable Proactive Safety™ and highway autonomy for passenger vehicles and commercial trucks as “*Sentinel*”.

Substantially all our software products remain in the designing and coding phase of development and have not yet achieved technological feasibility.

Competition

The market for LiDAR-enabled vehicle features, on- and off-road, is an emerging one with many potential applications in the development stage. As a result, we face competition in the LiDAR hardware business from a range of companies seeking to have their products incorporated into these applications. We believe we hold a strong position based on our hardware product performance and maturity, as well as our growing ability to develop deeply integrated software capabilities needed to provide safety and autonomous features to our customers. Historically, we have also faced competition from Tier 1 suppliers that have pursued various LiDAR investments or partnerships; however, many of these efforts have abated over the past few years, and a number of Tier 1 suppliers have exited or abandoned their LiDAR development efforts.

The majority of our competitors in the LiDAR hardware space are focused on a lower-performance segment due to limitations of their technology, whereas we remain focused on a high-performance segment, as measured by Range-X-Resolution, or more specifically the distance up to which objects can be detected by the LiDAR and the point densities of the objects being detected to reliably track and classify them over the most optimal field of view.

More specifically, all LiDARs utilize a laser with a specific wavelength; each with its own unique physics constraints. Current LiDARs and future roadmaps for LiDARs are primarily 1550nm or 905/940nm. Luminar's LiDAR operates at 1550nm, while most of our LiDAR competitors operate at 9XXnm, and 1550nm offers superior performance over its 9XXnm counterparts in virtually every measure. These include:

Eye Safety: 905nm wavelength lasers operate at a wavelength that is closer to that which is visible by the human eye, and thus can cause eye damage. 1550nm wavelength lasers, however, can emit 17 times the number of photons into the environment, on average, than is allowed from those below 1000nm (such as, 905nm and 940nm) and still remain eye safe. This means 1550nm LiDAR has the potential for substantially better resolution and detection range, as compared to a 9XXnm LiDAR.

Inclement Weather: LiDAR wavelength performance in weather is fairly complicated, but on the whole, 1550nm wavelength performs best overall due to both the eye safety benefit and favorable range degradation physics.

Solar Radiation: Significantly more sunlight reaches the earth at 905nm than at 940nm or 1550nm, meaning the “floor” for detection of 905nm systems is much higher than its counterparts. As higher levels of sunlight decreases a LiDAR’s ability to detect objects, 1550nm and 940nm systems have a major sensitivity advantage over 905nm systems.

Additionally, production of LiDAR uses parts developed specifically for the demands of the use case. While 9XXnm LiDAR is built on parts intended for consumer applications, 1550nm LiDAR leverages parts intended for aerospace, defense, and telecommunications applications that can be leveraged for automotive applications. In other words, 9XX begins with a cost benefit, but must catch up on performance and robustness, while 1550nm begins with a performance and robustness benefit and must catch up on cost. Different wavelengths require different semiconductor materials for detection. 9XXnm systems are detected by silicon, a common single-element selected for its availability due to the infrastructure of the camera semiconductor industry rather than its suitability for use in automotive applications. 1550nm detection requires Indium Gallium Arsenide (InGaAs), an alloy consisting of less readily available materials that ultimately provide superior performance in automotive applications.

Competition within the LiDAR hardware space is also bifurcated between Chinese versus Western companies. The China market and Chinese automakers have generally been earlier adopters of LiDAR technology for integration into vehicle platforms than automakers in the Western markets. As a result, the Chinese LiDAR companies have enjoyed economies of scale and associated better sensor economics in a way that Western LiDAR companies, including Luminar, have yet to achieve. However, as LiDAR penetration in the Western market increases, this cost advantage should lessen or dissipate.

Within the automotive autonomy software space, the competitive landscape is still nascent and has primarily been focused on developing Level 4-5 autonomous capabilities for robo-taxi or other applications, as opposed to active safety or autonomous features for Level 2-3 capabilities in passenger vehicles. Other autonomous software providers include in-house OEM software teams; automotive silicon providers; large technology companies; and newer technology companies focused on autonomous software. We partner with certain autonomous software providers to provide our LiDAR and other products into the passenger vehicle, commercial truck, and robo-taxi markets.

Beyond the automotive markets, the adjacent markets, including but not limited to last mile delivery, aerospace and defense, robotics, and security, among others, are highly competitive. There are entrenched incumbents and competitors, including from China, many of which have low cost products that are widely available.

Intellectual Property

Our success and competitive advantage depend in part upon our ability to develop and protect our core technology and intellectual property. We own a portfolio of intellectual property, including patents and registered trademarks, confidential technical information, and expertise in the development of LiDAR technology and software for our end markets.

We have filed patent and trademark applications in order to further secure these rights and strengthen our ability to defend against third parties who may infringe on our rights. Additionally, we protect our proprietary rights through agreements with our commercial partners, supply-chain vendors, employees, and consultants, as well as close monitoring of the developments and products in the industry.

As of February 2025, we had 222 issued patents (191 U.S. and 31 international), 197 pending applications (127 U.S. and 70 international), of which five U.S. application has been allowed. In addition, as of February 2025, we had six registered U.S. trademarks, 103 registered foreign trademarks and 61 pending trademark applications.

Manufacturing Process

We design certain critical semiconductor components in-house, including our receiver ASIC and Indium Gallium Arsenide (“InGaAs”) photodiode.

In 2021, we executed contract manufacturing services agreements to enable series production of our Iris LiDAR sensors with Celestica and Fabrinet, whereby Fabrinet is responsible for assembly and testing of our transceiver sub-component based on our design and components, and Celestica is responsible for final assembly and testing of our LiDAR sensor including the transceiver from Fabrinet. In 2024, we announced our SOP for our lead customer at the dedicated manufacturing facility in Mexico, owned and operated by Celestica, and we began shipping production LiDAR sensors.

In 2023, we executed a contract manufacturing services agreement with TPK to build and operate a high volume facility in Asia, and we commenced the process of series production tooling in partnership with TPK at the facility. In 2024, we executed an agreement to establish an engineering center in China, staffed by TPK, to assist with our industrialization efforts, including manufacturing process design, development and validation, component process verification and validation, supplier development support, system validation, cost analysis, and benchmarking. This expanded partnership with TPK is accretive to our contract manufacturing relationship, as well as our contract manufacturing relationships with Celestica and Fabrinet.

We continually evaluate opportunities for optimizing our manufacturing and product design processes. In 2024, we commenced an effort to further streamline our sourcing strategy and improve per unit sensor manufacturing costs, including changing the sourcing and final assembly of certain components from one contract manufacturer to another. This effort included scaled down or production downtime at the dedicated manufacturing facility in Mexico.

Research and Development

Our research and development activities occur in various locations in the United States, Germany, Sweden, China and India.

Our research and development team is responsible for creating new technologies and expanding LiDAR and perception and mapping software functionality. The team is responsible for ensuring our LiDAR is designed for manufacturability and testability. The team partners with our operations and supply chain functions to develop scalable, commercial and reliable manufacturing processes and direct production material procurement.

Sales and Marketing

We use customer feedback to specifically tailor our product and approach to build and expand our relationships with potential commercial partners. In parallel, marketing and communications drive our brand equity and narrative through ongoing announcements, campaigns, events, speaking opportunities, and public relations efforts.

The automotive value chain characteristically involves research and feasibility studies, followed by long-term product development cycles, including testing and qualification with automakers which can last for several years. In general, automaker agreements do not guarantee potential volumes, or timing of purchases to their suppliers during product development cycle. Instead, typically, after initial research and feasibility agreements and extensive competitive negotiations, automakers enter into development agreements that establish collaborations or partnerships to develop and integrate technology into the automaker's vehicles or platforms intended for series production, frequently accompanied by non-recurring engineering ("NRE") projects. While these collaboration or partnership agreements provide automakers the right to terminate the relationship without purchasing any production volume, factors such as difficulty of integrating complex technologies, sunken costs relating to NRE projects, impact on product roadmaps, time to market, and risk of being unable to secure future supply may deter automakers to cancel collaboration or development agreements. Automakers typically only enter into blanket purchase orders or other definitive supply agreements with binding commitments several months before production is expected to begin.

Government Regulation

Automotive safety regulation in the area of autonomy is split between two categories: (1) SAE Level 0-2 (including active safety, driver assist, and conditional autonomy); and (2) SAE Level 3-5 (partial through full autonomy, commonly referred to as "higher autonomy"). In general, throughout the world, there is a positive legal environment that encourages consumer sale and use of SAE Level 0-2 functionality. The legal environment for SAE Level 3-5 functionality varies, generally encouraging the safe testing and development of higher autonomy functions, but restricting consumer use in personal vehicles and commercial use, as in automated trucking and taxis in many regions.

In the U.S., at both the federal and state level, nearly all SAE Level 0-2 functionality is permitted, while SAE Level 3-5 enjoys a positive environment for on-road testing and development, but mixed opportunities to deploy in consumer and commercial use. Federal regulation does not prohibit higher levels of autonomy today, but if NHTSA deems an autonomy system unsafe, it would order a recall to remove vehicles from the road. Thus far, several U.S. states have expressly permitted SAE Level 4-5 levels of autonomy, while many remain silent, and others have laws that limit driverless operation. We believe regulations related to autonomous vehicle technologies will continue to evolve to remove hurdles as state and federal regulators gain more experience with the technology.

In Europe, China, and the rest of the world, most automotive safety is regulated by a common system under the United Nations Economic Commission for Europe (UN/ECE). Under current UN/ECE standards, SAE Level 0-2 functionality may be deployed with certain restrictions, such as road type and with driver monitoring, and certain SAE Level 3 systems, such as so-called “traffic jam assist” systems, may be introduced with speed limitations determined by the detection range, but higher SAE Level 4-5 functionality is limited to testing only or narrow exceptions. Safety regulators continue to work on standards for higher autonomy, but we expect this development process to be slow. However, China has increasingly departed from the common UN/ECE standards and is more likely to create its own regulations allowing higher levels of autonomy in the nearer term and has also developed regions and cities for higher levels of autonomy based on local regulation.

Given the intense work in these regulatory areas, there is a positive environment for deploying our LiDAR technology and Proactive Safety™ today in SAE Level 0-2 systems. While there is risk that SAE Level 3-5 systems may be delayed by regulation in some countries, we expect a workable path forward over the next several years as a more permissive regulatory and political environment develops.

Employees

As of December 31, 2024, excluding contractors, we had 580 full-time employees primarily in the United States, Germany, Sweden, India and China. None of our employees are represented by a labor union.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants, while aiming towards a talented and diverse workforce. The principal purposes of our equity and cash incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Metrics Update

In the past, before we had commenced series production, we disclosed “Order Book” as an alternative metric to measure our commercial progress and the opportunity for our business. Order Book was defined as the forward-looking cumulative billings estimate of Luminar’s hardware and software products over the lifetime of given vehicle production programs for which our technology was expected to be integrated into or provided for, based primarily on projected or actual contractual pricing terms and our good faith estimates of volume.

Now that we have achieved series production, our assessment is that Order Book is no longer as valuable a metric as sensors shipped. We have thus removed disclosure of an Order Book estimate in favor of disclosing sensors shipped, and associated guidance, as an alternative metric by which to measure our commercial, operational, and financial progress. This is a consistent practice with other LiDAR companies that have reached the series production stage.

Corporate Social Responsibilities and Sustainability

We are committed to active and responsible corporate citizenship. Our Corporate Social Responsibility (“CSR”) program is divided into seven elements (diversity and inclusion; human resources; finance/accounting; responsible sourcing; environmental, health and safety; trade compliance; and business ethics), each spearheaded by company leaders and subject matter experts in their respective areas. We expect ADAS and automated driving technologies to provide strong social benefits, such as reducing roadway injuries and fatalities, including in urban areas, making roadways more efficient by reducing commuting times and CO2 emissions, and offering improved productivity.

Available Information

This Form 10-K, along with all other reports and amendments filed with or furnished to the SEC, are publicly available free of charge on our Investor Relations website at <https://investors.luminartech.com/> or at www.sec.gov as soon as reasonably practicable after these materials are filed with or furnished to the SEC. We also use our website as a tool to disclose important information about the company and comply with our disclosure obligations under Regulation Fair Disclosure. Our governance guidelines, code of conduct, and Board committee charters are also posted on our Investor Relations website. The information on our website (or any webpages referenced in this Form 10-K) is not part of this or any other report we file with, or furnish to, the SEC.

ITEM 1A. RISK FACTORS.

Risk Factor Summary

Investing in our securities involves a high degree of risk. You should carefully consider all information in this Form 10-K, including our consolidated financial statements and related notes appearing elsewhere in this Form 10-K and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations," before purchasing our securities. These risks are discussed more fully in the section titled "Risk Factors." These risks and uncertainties include, but are not limited to, the following:

- our history of losses and our expectation that we will continue to incur significant expenses, including substantial R&D costs, and continuing losses for the foreseeable future, as well as our limited operating history which makes it difficult to evaluate our future prospects and the risks and challenges we may encounter;
- our strategic initiatives which may prove more costly than we currently anticipate and potential failure to increase our revenue to offset these initiatives;
- whether our LiDAR products are or will continue to be selected for inclusion in autonomous driving or ADAS systems by automotive OEMs or their suppliers, and whether we will be de-selected by any customers, and end customer adoption rates and demand for our products;
- the lengthy period of time from a major commercial win to implementation and the risks of cancellation or postponement of the contract or unsuccessful implementation;
- potential inaccuracies in our forward-looking metrics and estimates, and our future cost of goods sold (COGS) and bill of materials (BOM) and total addressable market;
- the discontinuation, lack of success of our customers in developing and commercializing products using our solutions or loss of business with respect to a particular vehicle model or technology package and whether end automotive consumers will demand and be willing to pay for such features;
- our ability to successfully fund our growth if there are considerable delays in product introductions by us or our customers or difficulties our automotive original equipment manufacturers customers ("OEMs") may face with their products;
- our inability to reduce and control the cost of the inputs on which we rely, which could negatively impact the adoption of our products and our profitability;
- the effect of continued pricing pressures, competition from other LiDAR manufacturers, cost reduction initiatives by OEMs and the ability of OEMs to re-source or cancel vehicle or technology programs which may result in lower than anticipated margins, or losses, which may adversely affect our business;
- the effect of general economic conditions, including inflation, recession risks and rising interest rates, generally and on our industry and us in particular, including the level of demand and financial performance of the autonomous vehicle industry and LiDAR industry and the decline in fair value of available-for-sale debt securities in a rising interest rate environment;
- specific economic and market uncertainty regarding the autonomous vehicle industry and LiDAR industry as a result of competitor failures, mergers, and delays;
- market adoption of LiDAR as well as developments in alternative technology and the increasingly competitive environment in which we operate, which includes established competitors and market participants that have substantially greater resources;
- our ability to achieve technological feasibility and commercialize our software products and the requirement to continue to develop new products and product innovations due to rapidly changing markets and government regulations of such technologies;
- our ability to build, launch, receive regulatory approval, sell, and service insurance products as well as market and differentiate the benefits of LiDAR-based ADAS to consumers;
- our ability to manage our growth and expand our business operations effectively, including into international markets, such as China, which exposes us to operational, financial, regulatory and geopolitical risks;
- changes in our government contracts business and our defense customers' business due to political change and global conflicts;
- the nature of our sales, which despite our start of series production for certain customers, still include a significant amount of sales to customers for R&D projects and project-based orders, which may cause potentially significant fluctuations in our quarterly and annual results of operations;
- adverse impacts due to limited availability and quality of materials, supplies, and capital equipment, or dependency on third-party service providers and single source suppliers;

- whether we will be able to successfully transition our engineering designs into high volume manufacturing, including our ability to transition to an outsourced manufacturing business model and whether we and our outsourcing partners and suppliers can successfully operate complex machinery;
- our ability to establish and maintain confidence in our long-term business prospects among customers and analysts and within our industry and whether we are subject to negative publicity;
- whether we can successfully select, execute or integrate our acquisitions;
- any defects, errors, lack of reliability or other issues with our products which could reduce market adoption of our products, limit our ability to manufacture, damage our reputation and expose us to product liability, warranty and other claims;
- our ability to maintain and adequately manage our inventory;
- our ability to maintain an effective system of internal control over financial reporting;
- our ability to protect and enforce our intellectual property rights;
- availability of qualified personnel, loss of highly skilled personnel;
- the impact of inflation and our stock price on our ability to hire and retain highly skilled personnel;
- the amount and timing of future sales and whether the average selling prices of our products could decrease rapidly over the life of the product as well as our dependence on a few key customers, who are often large corporations with substantial negotiating power;
- interruption or failure of our information technology and communications systems and cybersecurity risks to our operational systems, security systems, infrastructure, and integrated software in our LiDAR solutions;
- strict government regulation that is subject to amendment, repeal or new interpretation and our ability to comply with modified or new laws and regulations applying to our business;
- changing government regulations relating to vehicle safety and autonomous vehicles that could prevent, delay or negatively affect the quality of ADAS and autonomy systems introduced by our OEM customers;
- market instability exacerbated by geopolitical conflicts, including the Israel-Hamas war and the conflict between Russia and Ukraine;
- trade and national security disputes, particularly with China, including the effect of sanctions, tariffs and other trade restrictions that may affect supply chain or sales opportunities in the United States, Europe, and China;
- whether the concentration of our stock ownership and voting power limits the ability of our stockholders to influence corporate matters;
- the amount of our outstanding indebtedness and our ability to comply with covenants contained in the agreements governing our indebtedness;
- our ability to access sources of capital to pay our indebtedness, and finance operations and growth; and
- our ability to maintain compliance with the Nasdaq continued listing standards for the listing of our Class A common stock.

Risk Factors

Risks Related to Our Business and Industry

We are an early stage company with a history of losses, and we expect to incur significant expenses and continuing losses for the foreseeable future.

We have incurred net losses on an annual basis since our inception. We incurred net losses of \$273.1 million, \$571.3 million and \$445.9 million for the years ended December 31, 2024, 2023 and 2022, respectively. We believe that we will continue to incur operating and net losses each quarter until at least the time we begin high volume commercial deliveries of our LiDAR-based products, which may occur later than we anticipate or not at all. Even if we successfully develop and sell our LiDAR and software solutions, there can be no assurance that they will be commercially successful. Our potential profitability is dependent upon the successful development and successful commercial introduction and acceptance of our LiDAR solutions, which may not occur.

We expect the rate at which we will incur losses to remain high in future periods as we:

- expand our production capabilities to produce our LiDAR solutions, including costs associated with outsourcing the production of our LiDAR solutions;
- continue to utilize our third-party partners for design, testing and commercialization;
- expand our design, development, installation and servicing capabilities to address production of more products for more customers in more countries;
- build up inventories of parts and components for our LiDAR solutions;
- produce an inventory of our LiDAR solutions;
- continue to invest in our software development; and
- increase our sales and marketing activities and develop our distribution infrastructure.

Because we will incur the costs and expenses from these efforts before we receive incremental revenues with respect thereto, our losses in future periods will be significant. In addition, we may find that these efforts are more expensive than we currently anticipate or that these efforts may not result in revenues, which would further increase our losses.

Our limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter.

We have been focused on developing LiDAR products for autonomous driving systems and driver assistance systems since 2012. This relatively limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter. Risks and challenges we have faced or expect to face include our ability to:

- produce and deliver LiDAR and software products of acceptable performance, volume, cost, and quality;
- forecast our revenue and budget for and manage our expenses;
- attract new customers and retain existing customers in the automotive supply chain where sourcing and volume production targets are not guaranteed;
- comply with existing and new or modified laws and regulations applicable to our business;
- plan for and manage capital expenditures for our current and future products, and manage our supply chain and supplier relationships related to our current and future products;
- anticipate and respond to macroeconomic changes and changes in the markets in which we operate;
- maintain and enhance the value of our reputation and brand;
- effectively manage our growth and business operations;
- develop and protect intellectual property;
- hire, integrate, and retain talented people at all levels of its organization; and
- successfully develop new solutions to enhance the experience of customers and consumers.

If we fail to address the risks and difficulties that we face, including those associated with the challenges listed above as well as those described elsewhere in this “Risk Factors” section, our business, financial condition, and results of operations could be adversely affected. Further, because we have limited historical financial data and operate in a rapidly evolving market,

any predictions about our future revenue and expenses may not be as accurate as they would be if we had a longer operating history or operated in a more predictable market. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations and our business, financial condition, and results of operations could be adversely affected.

We continue to implement strategic initiatives designed to grow our business. These initiatives may prove more costly than we currently anticipate, and we may not succeed in increasing our revenue in an amount sufficient to offset the costs of these initiatives and to achieve and maintain profitability.

We continue to make investments and implement initiatives designed to grow our business, including:

- investing in R&D;
- investing in new applications and markets for our products;
- investing in our manufacturing processes and partnerships to scale production;
- expanding our sales and marketing efforts to attract new customers;
- protecting our intellectual property;
- acquiring businesses of strategic importance; and
- investing in legal, accounting, human resources, and other administrative functions necessary to support our operations as a public company.

These initiatives may prove more expensive than we currently anticipate, and we may not succeed in increasing our revenue, if at all, in an amount sufficient to offset these higher expenses and to achieve and maintain profitability. The market opportunities we are pursuing are at an early stage of development, and it may be many years before the end markets we expect to serve generate demand for our products at scale. Our revenue may be adversely affected for a number of reasons, including:

- the development and/or market acceptance of new technology that competes with our LiDAR products;
- if certain automotive OEMs or other market participants change their autonomous vehicle and driver assistance technologies;
- failure of our customers to commercialize autonomous systems that include our solutions, or delays thereof;
- our ability to create, validate, and manufacture at high volume, as well as ship our products to customers;
- our inability to effectively manage our inventory or manufacture our products at scale;
- our inability to enter new markets or help our customers adapt our products for new applications;
- our failure to attract new customers or expand orders from existing customers; or
- increasing competition from other LiDAR companies.

Furthermore, it is difficult to predict the size and growth rate of our target markets, customer demand for our products, commercialization timelines, developments in autonomous vehicle sensing and related technology, the entry of competitive products, or the success of existing competitive products and services. For these reasons, we do not expect to achieve profitability over the near term. If our revenue does not grow over the long-term, our ability to achieve and maintain profitability may be adversely affected, and the value of our business may significantly decline.

If our LiDAR products are not selected for inclusion in ADAS or autonomous driving systems by more automotive OEMs or their suppliers, our business will be materially and adversely affected.

Automotive OEMs and their suppliers design and develop ADAS and autonomous driving technology over several years. These automotive OEMs and suppliers undertake extensive testing and qualification processes prior to placing orders for large quantities of products such as our LiDAR, because such products will function as part of a larger system or platform over the duration of program life, and often must meet certain other specifications. We spend significant time and resources to have our products selected by automotive OEMs and their suppliers. We define the term “major win” or “major commercial win” to have occurred when (a) we have obtained a written agreement (e.g. non-binding expression of interest arrangement or an agreement for non-recurring engineering project) or public announcement with a major industry player, and (b) based on past experience in high volume production, leadership in autonomy, or market leadership of said major industry player, we expect to ultimately be awarded a significant commercial program, including an OEM series production program. If we do not achieve a major commercial win with respect to a particular vehicle model, we may not have an opportunity to supply our products to the

automotive OEM for that vehicle model for a period of many years. In many cases, this period can be as long as seven or more years. If our products are not selected by an automotive OEM or its suppliers for one vehicle model or if our products are not successful in that vehicle model, it is unlikely that our product will be deployed in other vehicle models of that OEM. If we fail to win a significant number of vehicle models from one or more automotive OEMs or their suppliers, our business, results of operations, and financial condition will be materially and adversely affected. For more information about certain risks related to product selection, see the risk factor captioned “*The period of time from a major commercial win to implementation is long, and we are subject to risks of cancellation or postponement of the contract or unsuccessful implementation.*”

The period of time from a major commercial win to implementation is long, and we are subject to risks of cancellation or postponement of the contract or unsuccessful implementation.

Prospective customers, including those in the automotive industry, generally must make significant commitments of resources to test and validate our products and confirm that they can integrate with other technologies before including them in any particular system, product, or model. While certain customers have executed a non-binding expression of interest arrangement or engaged us for non-recurring engineering projects while they are evaluating our products, none of our customers make contractual commitments to use our LiDAR sensors or software until all test and validation activities have been completed, they have finalized plans for integrating our systems, have a positive expectation of the market demand for our features, and unrelated to us, have determined that their vehicle is ready for market and there is appropriate consumer demand. We expect that only after this point will our customers consider entering into definitive volume production agreements.

Through the end of 2024, we have entered into high volume series production with only one of our OEMs, and although we have certain purchase orders from others, none of our other automotive OEM customers have completed their on-going testing and validation with us. There is no assurance or guarantee that any of our other customers, including any for which we have announced a “major win” or “major commercial win”, will ever complete such testing and validation or enter into a definitive volume production agreement with us or that we will receive any revenues forecasted in connection with such “major win” or “major commercial win”.

The development cycles of our products with new customers varies widely depending on the application, market, and customer, as well as the complexity of the product. In the automotive market, for example, this development cycle can be as long as seven or more years. The development cycle in certain other markets can be several months to a few years. These development cycles result in us investing our resources prior to realizing any revenue from commercialization or obtaining any firm commitments of pricing, volume or timing of purchases of our products by our customers. Further, we are subject to the risk that customers cancel or postpone implementation of our technology, or that we will not be able to integrate our technology successfully into a larger system with other sensing modalities. Additionally, our revenue could be materially less than forecasted estimates if the system, product, or vehicle model that includes our LiDAR is unsuccessful, including for reasons unrelated to our technology. Long development cycles and product cancellations or postponements may adversely affect our business, results of operations and financial condition, and we cannot provide any assurance that we will be able to successfully fund our growth if there are considerable delays in product introductions by us or our customers. Thus, even if we have been successful in obtaining major commercial wins, long development cycles, product cancellations or postponements, and failures to successfully integrate our technology may materially and adversely affect our business, results of operations, and financial condition.

Our forward-looking estimates of certain financial metrics may prove inaccurate.

We use various estimates in formulating our business plans. We base our estimates upon a number of assumptions that are inherently subject to significant business and economic uncertainties and contingencies, many of which are beyond our control. These estimates include our assessment of whether a “major win” or “major commercial win” has occurred, and previously included an estimate of “Order Book” as an alternative metric to measure our commercial progress and the opportunity for our business. Our estimates therefore may prove inaccurate, causing the actual amount to differ from our estimates. The factors which may cause actual amounts to differ from our estimates include, without limitation:

- the extent to which customers who have selected Luminar for a major commercial win include our hardware and software products into their systems, products, or vehicle models, including the percentage or take rate within a vehicle configuration planned for production by our customers, which may change over time;
- the extent to which Luminar meets contractual terms and conditions, and whether there are any series production delays, whether caused by Luminar or unrelated to our technology;
- the extent to which our technology is successfully integrated into our customers’ products;
- the timing of when our customers adopt our technology into their products on a commercial basis which could be delayed for regulatory, safety or reliability issues unrelated to our technology;

- defects, errors, lack of reliability or other issues in our hardware or software which could reduce the market adoption of our products or delay or stop production;
- loss of business with respect to, or the failure or lack of commercial success of, a vehicle model for which we are a significant supplier for reasons unrelated to our technology; For more information about certain risks related to discontinuation or loss of business, see the risk factor captioned “*The discontinuation or lack of commercial success of, or loss of business with respect to, a particular vehicle model or technology package for which we are a significant supplier could reduce our sales and adversely affect our profitability;*”
- a decline, for any reason, in the production levels of our customers, particularly with respect to models which incorporate our technology;
- customer cancellations of their contracts with us;
- the extent to which end consumers select our products when purchasing a vehicle option package from automotive OEMs; and
- other risk factors set forth in this Form 10-K.

Our revenue estimate for 2024, projected cash position at year end 2024 and timing to achieve positive gross margin have differed from our actual results due to one or more factors mentioned above. If we fail to meet the financial estimates or targets we provide for 2025 and beyond, or if we find it necessary to revise such estimates or targets, the market value of our Class A common stock could be adversely affected.

The discontinuation or lack of commercial success of, or loss of business with respect to, a particular vehicle model or technology package for which we are a significant supplier and the absence of demand from end automotive consumers for our features, could reduce our sales and adversely affect our profitability.

If we are able to secure major commercial wins and our solutions are included in ADAS and autonomous driving systems by automotive OEMs, we expect to enter into supply agreements with those relevant customers. Market practice dictates that these supply agreements typically require us to supply a customer’s requirements for a particular vehicle model ADAS or autonomous driving system, rather than supply a set number of products over a given period. These requirement contracts can have short terms and/or can be subject to renegotiation, sometimes as frequently as annually, all of which may affect product pricing, and these contracts may also be terminated by our customers at any time. Moreover, end automotive consumers must demand and be willing to pay for our features if our technology is not included as standard equipment on a vehicle program. Therefore, even if we are successful in obtaining major commercial wins and the systems into which our products are built are commercialized, the discontinuation of, the loss of business with respect to, or a lack of commercial success of a particular vehicle model or technology package for which we are a significant supplier, and the absence of demand from end automotive consumers for our features, could mean that the expected sales of our products will not materialize, which would materially and adversely affect our business.

Information concerning our future cost of goods sold (COGS) and bill of materials (BOM) estimates may prove inaccurate.

We periodically provide estimates of future cost of goods sold and bill of materials which by necessity, are projections based on anticipated rates of future production of our customers and the timing of related expenditures, and there are uncertainties inherent in the creation and interpretation of such data.

Pricing negotiated in our supply agreements for key components like receiver, ASIC and laser are dependent on volume estimates which may not be realized. Most of our components are manufactured using technologies that are highly complex and consequently, estimates of BOM and COGS may fluctuate due to many variable factors and assumptions, including but not limited to the following:

- meeting certain volume estimates;
- our reliance on key inputs and our ability to reduce and control the cost of such inputs. For more information about certain risks related to our reliance on key inputs and our inability to reduce and control the costs of such inputs, see the risk factor captioned “*We are reliant on key inputs, and our ability to reduce and control the cost of such inputs could negatively impact the adoption of our products and our profitability;*”
- the risk of shortages and long lead times in the supply of key components and the risk that our suppliers discontinue or modify components used in our products. For more information about certain risks related to reliance on third-party suppliers, see the risk factor captioned “*We rely on third-party suppliers and because some of the raw materials and key components in our products come from limited or single source suppliers, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers;*”

- consistency and adequate quality and quantity of piece parts, other raw materials, and other bill of materials items;
- contract negotiations and the execution of firm supply agreements;
- future versions of our product design incorporating new components meeting our customers' requirements and specifications. For more information about certain risks related to product selection, see the risk factor captioned "*The period of time from a major commercial win to implementation is long, and we are subject to risks of cancellation or postponement of the contract or unsuccessful implementation;*"
- the qualification of new versions of our key components. For more information about certain risks related to qualification, see the risk factor captioned "*If our LiDAR products are not selected for inclusion in ADAS or autonomous driving systems by automotive OEMs or their suppliers, our business will be materially and adversely affected;*"
- defects in production processes (including system assembly) either within our facilities, at our contract manufacturers, or at our suppliers;
- any transitions or changes in our production process, planned or unplanned; and
- other risk factors set forth in this Form 10-K.

We are reliant on key inputs and our inability to reduce and control the cost of such inputs could negatively impact the adoption of our products and our profitability.

The production of our LiDAR sensors is dependent on producing or sourcing certain key components and raw materials at acceptable price levels. If we are unable to adequately reduce and control the costs of such key components, we will be unable to realize manufacturing cost targets, which could reduce the market adoption of our products, damage our reputation with current or prospective customers, and harm our brand, business, prospects, financial condition and operating results.

Continued pricing pressures, automotive OEM cost reduction initiatives and the ability of automotive OEMs to re-source or cancel vehicle or technology programs may result in lower than anticipated margins, or higher than anticipated losses, which may adversely affect our business.

Cost-cutting initiatives adopted by many of our automotive customers often result in increased downward pressure on pricing for our products and competitive products. We expect that our agreements with automotive OEMs may require step-downs in pricing over the term of the agreement or, if commercialized, over the period of production. In addition, our automotive OEM customers often reserve the right to terminate their supply contracts for convenience, which enhances their ability to obtain price reductions. Automotive OEMs also possess significant leverage over their suppliers, including us, because the automotive component supply industry is highly competitive, serves a limited number of customers and has a high fixed cost base.

Accordingly, we expect to be subject to continuing and substantial pressure from automotive OEMs and Tier 1 suppliers to reduce the price of our products. It is possible that pricing pressures beyond our expectations could intensify as automotive OEMs pursue restructuring, consolidation, and cost-cutting initiatives. If we are unable to generate sufficient production cost savings in the future to offset price reductions, our gross margin and profitability would be adversely affected.

We expect to incur substantial R&D costs and devote significant resources to identifying and commercializing new products, which could significantly reduce our profitability and may never result in revenue to us.

Our future growth depends on penetrating new markets, adapting existing products to new applications and customer requirements, and introducing new products that achieve market acceptance. We plan to incur substantial, and potentially increasing, R&D costs as part of our efforts to design, develop, manufacture and commercialize new products and enhance existing products. Our R&D expenses were \$231.7 million, \$262.2 million and \$185.3 million for the years ended December 31, 2024, 2023 and 2022, respectively, and are likely to grow in the future. Because we account for R&D as an operating expense, these expenditures will adversely affect our results of operations in the future. Further, our R&D program, including our software development efforts, may not produce successful results, and our new products may not achieve market acceptance, create additional revenue or become profitable.

Market adoption of LiDAR is uncertain. Developments in alternative technology may adversely affect the demand for our LiDAR technology. If market adoption of LiDAR does not continue to develop, or develops more slowly than we expect, or our investments in educating our customers about the advantages of LiDAR fail, our business will be adversely affected.

While our LiDAR-based ADAS and autonomous driving solutions can be applied to different use cases across end markets, the majority of our revenue is generated from automotive applications. Despite the fact that the automotive industry has engaged in considerable effort to research and test LiDAR products for ADAS and autonomous driving applications, the automotive industry may not introduce LiDAR products in commercially available vehicles. We continually study emerging

and competing sensing technologies and methodologies and we may add new sensing technologies over time. However, LiDAR products remain relatively new to our targeted industries, and it is possible that other sensing modalities, or a new disruptive modality based on new or existing technologies, including a combination of technology, will achieve acceptance or leadership in the ADAS and autonomous driving space. For example, significant developments in alternative technologies, such as cameras and radar, may materially and adversely affect our business in ways we do not currently anticipate. Existing and other camera and radar technologies may emerge as customers' preferred alternatives to our solutions. Any failure by us and our R&D efforts to develop new or enhanced technologies or processes, or to react to changes in existing technologies, could materially delay our development and introduction of new and enhanced products in the ADAS and autonomous driving industry, which could result in the loss of competitiveness of our LiDAR solutions, decreased revenue and a loss of market share to competitors. We plan to upgrade or adapt our LiDAR solutions with the latest technologies; however, our solutions may not compete effectively with alternative systems if we are not able to source and integrate the latest technology into our existing LiDAR solutions.

Even if LiDAR products are used in initial generations of autonomous driving technology and certain ADAS products, we cannot guarantee that LiDAR products will be designed into or included in subsequent generations of such commercialized programs. Many automakers are now concentrating on improving consumer vehicle ADAS technology and creating new conditional automation systems; however, as these products and features are newly emerging, consumer acceptance and pricing desirability remains uncertain, and automakers may discontinue or decrease use in favor of cheaper vehicles without these technologies or systems, particularly if government regulations and safety ratings do not support ADAS technology. In addition, we expect that initial generations of fully autonomous vehicles will be focused on limited applications, such as robo-taxis, and that mass market adoption of autonomous technology may lag behind these initial applications significantly. The speed of market growth for ADAS or autonomous vehicles is difficult, if not impossible, to predict, and it is more difficult to predict this market's future growth in light of geopolitical instability, rapid inflation, and potential recession. Educating customers about LiDAR, its advantages over other sensing technologies, and LiDAR's ability to convey value in different industries and deployments is also an integral part of developing new business and the LiDAR market generally. If customers have a negative perception of, or experience with, our LiDAR or a competitor's LiDAR products, they may be reluctant to adopt LiDAR in general or specifically our products. Our investments and efforts to educate potential customers and the market generally and to counter any adverse statements made by competitors or other market participants thus, may not be successful.

Although we currently believe we are a leader in LiDAR-based systems for our targeted markets, by the time mass market adoption of ADAS and autonomous driving technology is achieved, we expect competition among providers of sensing technology based on LiDAR and other sensors modalities to increase substantially. If commercialization of LiDAR products is not successful, or not as successful as we or the market expects, or if other sensing modalities gain acceptance by developers of ADAS or autonomous driving systems, automotive OEMs, regulators and safety organizations, or other market participants by the time autonomous vehicle technology achieves mass market adoption, our business, results of operations and financial condition will be materially and adversely affected.

In addition to automotive markets, we are investing in and pursuing market opportunities in other markets, including but not limited to last mile delivery, aerospace and defense, robotics, and security. We believe that our future revenue growth, if any, will depend in part on our ability to expand within new markets such as these and to enter new markets as they emerge. Each of these markets presents distinct risks and, in many cases, requires us to address the particular requirements of that market.

Addressing the unique requirements of adjacent markets can be time-consuming and costly. The market for LiDAR technology outside of automotive applications is relatively new, rapidly developing, and unproven in many markets or industries. Many of our customers outside of the automotive industry remain in the testing and development phases; and we cannot be certain that they will commercialize products or systems with our LiDAR products or at all. Additionally, we cannot be certain that LiDAR will be sold into these markets, or any market outside of the automotive market, at scale.

Adoption of LiDAR, including our products, outside of the automotive industry will depend on numerous factors, including: whether the technological capabilities of LiDAR and LiDAR-based products meet customers' current or anticipated needs; whether the benefits of designing LiDAR into larger sensing systems outweigh the costs, complexity and time needed to deploy such technology or replace or modify existing systems that may have used other modalities like cameras and radar; whether customers in other applications can move beyond the testing and development phases and proceed to commercializing systems supported by LiDAR technology; and whether LiDAR developers such as us can keep pace with rapid technological change in certain developing markets, and changes in the global economy or automotive industry caused by international relations. If LiDAR technology does not achieve commercial success outside of the automotive industry, or if the market develops at a pace slower than we expect, our business, results of operation, and financial condition will be materially and adversely affected.

We may experience difficulties in managing our growth and expanding our operations.

We expect to experience significant growth in the scope and nature of our operations. Our ability to manage our operations and future growth will require us to continue to improve our operational, financial, and management controls, compliance programs, and reporting systems. We are currently in the process of strengthening our compliance programs, including our compliance programs related to export controls, privacy, cybersecurity and anti-corruption. We may not be able to implement improvements in an efficient or timely manner and may discover deficiencies in existing controls, programs, systems, and procedures, which could have an adverse effect on our business, reputation, and financial results.

We rely on third-party suppliers, and because some of the raw materials and key components in our products come from limited or single source suppliers, we are susceptible to supply shortages, long lead times for components, and supply changes, any of which could disrupt our supply chain and could delay deliveries of our products to customers.

Some of the components that go into the manufacturing of our products are sourced from third-party suppliers. To date, we have manufactured our products in relatively limited quantities for use primarily in R&D programs. Although we do not have any experience in managing our supply chain to manufacture and deliver our products at scale, our future success will depend on our ability to manage our supply chain to manufacture and deliver our products at scale. Some of the key components used to manufacture our products come from limited or single source suppliers. We are therefore subject to the risk of shortages and long lead times in the supply of these components and the risk that our suppliers discontinue or modify components used in its products. We have a global supply chain, and health epidemics and outbreaks, geopolitical events, and government trade restrictions may adversely affect our ability to source components in a timely or cost effective manner from our third-party suppliers due to, among other things, work stoppages or interruptions.

Increasing international tensions related to national security matters between China and the U.S. and its allies, as well as increasing tariffs or export or import restrictions, including those contemplated by the new administration also could disrupt our supply chain. For example, our products depend on specific laser technology, and we currently consume a substantial portion of the available market. Any shortage of these lasers could materially and adversely affect our ability to manufacture our solutions. Additionally, China has imposed export bans to the U.S. on rare earth minerals; and while InGaAs, which is used in our critical photodiode technology, is considered a compound semiconductor not subject to export bans, the standalone elements indium and gallium are classified as rare earth metals, which introduces risk should such export bans be expanded.

The lead times associated with certain components in our products are lengthy and preclude rapid changes in quantities and delivery schedules. We have in the past experienced, and may in the future experience, component shortages and price fluctuations of certain key components and materials, and the predictability of the availability and pricing of these components may be limited. Component shortages or pricing fluctuations could be material in the future. In the event of a component shortage, supply interruption, or material pricing change from suppliers of these components, we may not be able to develop alternate sources in a timely manner, or at all in the case of sole or limited sources. Developing alternate sources of supply for these components may be time-consuming, difficult, and costly, and we may not be able to source these components on terms that are acceptable to us, or at all, which may undermine our ability to meet our requirements or to fill customer orders in a timely manner. Any interruption or delay in the supply of any of these parts or components, or the inability to obtain these parts or components from alternate sources at acceptable prices and within a reasonable amount of time, would adversely affect our ability to meet our scheduled product deliveries to our customers. This could adversely affect our relationships with our customers and channel partners, and delays in shipment of our products could adversely affect our operating results. In addition, increased component costs could result in lower gross margins. Even where we are able to pass increased component costs along to our customers, there may be a lapse of time before we are able to do so, such that we must absorb the increased cost. If we are unable to buy these components in quantities sufficient to meet our requirements on a timely basis, we will not be able to deliver products to our customers, which may result in such customers using competitive products instead of ours.

Because our product sales still include a significant amount of sales to customers for R&D projects and our orders are project-based, we expect our results of operations to fluctuate on a quarterly and annual basis, which could cause our stock price to fluctuate or decline.

Our quarterly results of operations have fluctuated in the past and may vary significantly in the future. As such, historical comparisons of our operating results may not be meaningful. The nature of our sales, which despite our start of series production for certain customers, still include a significant amount of sales to customers for R&D projects and project-based orders, sales in any given quarter can fluctuate based on the timing and success of our customers' development projects. Accordingly, the results of any one quarter should not be relied upon as an indication of future performance. Our quarterly financial results may fluctuate as a result of a variety of factors, many of which are outside of our control and may not fully reflect the underlying performance of our business. These fluctuations could adversely affect our ability to meet our expectations or those of securities analysts, ratings agencies, or investors. If we do not meet these expectations for any period,

the value of our business and our securities could decline significantly. Factors that may cause these quarterly fluctuations include, without limitation, those listed below:

- the timing and magnitude of orders and shipments of our products in any quarter;
- pricing changes we may adopt to drive market adoption or in response to competitive pressures;
- our ability to retain our existing customers and attract new customers;
- our ability to develop, introduce, manufacture, and ship in a timely manner products that meet customer requirements;
- disruptions in our sales channels or termination of our relationships with important channel partners;
- delays in customers' purchasing cycles or deferrals of customers' purchases in anticipation of new products or updates from us or our competitors;
- fluctuations in demand pressures for our products;
- the mix of products sold in any quarter;
- the impact of health epidemics and outbreaks, and the time it takes for economic recovery;
- the timing and rate of broader market adoption of ADAS and autonomous driving systems utilizing our solutions across the automotive and other markets;
- market acceptance of LiDAR and further technological advancements by our competitors and other market participants;
- the ability of our customers to commercialize systems that incorporate our products;
- any change in the competitive dynamics of our markets, including consolidation of competitors, regulatory developments, and new market entrants;
- our ability to effectively manage our inventory;
- changes in the source, cost, availability of, and regulations pertaining to materials we use, including the effect of inflation on the cost of components for our products;
- adverse litigation, judgments, settlements, or other litigation-related costs, or claims that may give rise to such costs;
- deterioration of international relations and trade disputes, especially related to China, changes in trade policy in the United States and other countries, including the imposition of tariffs and the resulting consequences, which could disrupt the global automotive industry or LiDAR products specifically; and
- general economic, industry and market conditions.

Our transition to an outsourced manufacturing business model may not be successful, which could harm our ability to deliver products and recognize revenue.

We are in the process of transitioning from a manufacturing model in which we primarily manufactured and assembled our products in low volumes at our pilot facility in Orlando, Florida, to one where we rely on third-party contract manufacturers ("CMs") in Mexico, Thailand, China and potentially other foreign and domestic locations. We believe the use of CMs will have benefits, such as lower manufacturing costs, but in the near term, while we are beginning manufacturing with such CMs, we may lose revenue, incur increased costs, and potentially harm our customer relationships.

For example, in evaluating opportunities for optimizing our manufacturing and product design processes during 2023 and 2024, we commenced efforts to streamline our sourcing strategy and improve per unit sensor manufacturing costs, which included changing the sourcing of final assembly and components from one contract manufacturer to another. This effort included production downtime at the dedicated manufacturing facility in Mexico. As a result, we also reduced the useful lives of the long-lived assets within the impacted asset group in line with when these assets are expected to be abandoned. The reduction in the estimated useful lives of the impacted assets resulted in us recording \$4.4 million of accelerated depreciation charges in the year ended December 31, 2024. Our continuing optimization of our manufacturing and product design processes may impact estimated useful lives or carrying values of additional property, plant and equipment or other assets. Therefore, we could record additional depreciation, write-offs or other related costs. We may in the future implement other restructuring activities, which may include actions like reduction in workforce or changes in use of certain properties and other assets. Significant judgment is required to estimate restructuring costs; and these estimates, and the assumptions underlying them, may change as additional information becomes available or facts or circumstances related to restructuring initiatives change.

Reliance on third-party manufacturers reduces our control over the manufacturing process, including our ability to finalize changes through validation, and reduces our control over product quality, product costs and product supply and timing. We may experience delays in shipments or issues concerning product quality from our third-party manufacturers. If any of our third-party manufacturers experience interruptions, delays or disruptions in supplying our products, including due to natural disasters, global health epidemics and outbreaks, geopolitical events, national security, trade restrictions on imports and exports, or work stoppages or capacity constraints, our ability to ship products to distributors and customers would be delayed. In addition, unfavorable economic conditions could result in financial distress among third-party manufacturers upon which we rely, including those caused by tax or tariff changes, thereby increasing the risk of disruption of supplies necessary to fulfill our production requirements and meet customer demands. Additionally, if any of our third-party manufacturers experience quality control problems in their manufacturing operations and our products do not meet customer or regulatory requirements, we could be required to cover the cost of repair or replacement of any defective products. These delays or product quality issues could have an immediate and material adverse effect on our ability to fulfill orders and could have a negative effect on our operating results. In addition, such delays or issues with product quality could adversely affect our reputation and our relationship with our channel partners. If our third-party manufacturers experience financial, operational, manufacturing, or other difficulties, including restrictions that may be imposed by governments in response to tariffs or other actions taken by the U.S. government, or experience shortages in required components, or if they are otherwise unable or unwilling to continue to manufacture our products in required volumes or at all, our supply may be disrupted, we may be required to seek alternate manufacturers, and we may be required to re-design our products. It would be time-consuming, and could be costly and impracticable, to begin to use new designs, suppliers, and manufacturers, and such changes could cause significant interruptions in our supply to and could have an adverse effect on our ability to meet our scheduled product deliveries for our customers, and may subsequently lead to the loss of sales. While we take measures to protect our trade secrets, the use of third-party manufacturers may also risk disclosure of our innovative and proprietary manufacturing methodologies, which could adversely affect our business.

Our sales and operations in international markets, including our manufacturing operations, expose us to operational, financial and regulatory risks.

Sales to international customers accounted for 5%, 8% and 14% of our revenue in 2024, 2023 and 2022, respectively. We are committed to growing our international sales. While we have committed resources, and are working closely with OEMs and other collaborators outside the U.S., to expand our international operations and sales channels, these efforts may not be successful. We have also commenced international manufacturing operations. International operations, including any manufacturing operations, are subject to a number of other risks, including:

- foreign currency and exchange rate fluctuations;
- local economic conditions;
- geopolitical, political, and economic instability, wars and military conflicts, international terrorism and anti-American sentiment, particularly in emerging markets;
- health epidemics and outbreaks;
- potential for violations of anti-corruption laws and regulations, such as those related to bribery and fraud;
- tariffs, other trade barriers and restrictions, and preference for locally branded products, and laws and business practices favoring local competition;
- increased difficulty in managing inventory;
- difficulties in collecting receivables from foreign entities;
- less effective protection of intellectual property;
- foreign government regulatory requirements and stringent regulation of motor vehicles, ADAS and autonomous driving systems or products using our products and stringent consumer protection and product compliance regulations, including but not limited to UN/ECE vehicle regulations, General Data Protection Regulation in the European Union, European competition law, the Restriction of Hazardous Substances Directive, the Waste Electrical and Electronic Equipment Directive, and the European Ecodesign Directive, all of which are costly to comply with and may vary from country to country;
- national security and international trade restrictions on our hardware and software such as restrictions on import or export, particularly as related to U.S.–China relations;
- difficulties and costs of staffing and managing foreign operations;

- import and export laws and requirements, and the impact of recently imposed tariffs, specifically on China, by the U.S. government and countermeasures governments may take in response, which may disrupt our supply chain, increase our production costs, and reduce our competitiveness in the global market;
- potentially adverse tax consequences and changes in local tax and customs duty laws or changes in the enforcement, application, or interpretation of such laws; and
- U.S. and foreign government restrictions on certain sales and technology transfer to certain countries of concern, in particular potential U.S.–China trade restrictions relating to semiconductors, artificial intelligence autonomous systems, and cybersecurity.

The occurrence of any of these risks could negatively affect our international business or increase our costs and decrease our profit margins and consequently materially and adversely affect our business, operating results, and financial condition.

We, our outsourcing partners and our suppliers may rely on complex machinery for our production, which involves a significant degree of risk and uncertainty in terms of operational performance and costs.

We, our outsourcing partners and our suppliers may rely on complex machinery for the production, assembly, and installation of our LiDAR products, which will involve a significant degree of uncertainty and risk in terms of operational performance and costs. Our production facilities and the facilities of our outsourcing partners and suppliers consist of large-scale machinery with high capital expense combining many components. These components may suffer unexpected malfunctions from time to time and will depend on repairs and spare parts to resume operations, which may not be available when needed. Unexpected malfunctions of these components may significantly affect the intended operational efficiency. Operational performance and costs can be difficult to predict and are often influenced by factors outside of our control, such as, but not limited to, scarcity of natural resources, environmental hazards and remediation, costs associated with decommissioning machines, labor disputes and strikes, difficulty or delays in obtaining governmental permits, damages or defects in electronic systems, industrial accidents, fires, seismic activity, and natural disasters. Should operational risks materialize, it may result in the personal injury to or death of workers, the loss of production equipment, damage to production facilities, monetary losses, delays and unanticipated fluctuations in production, environmental damage, administrative fines, increased insurance costs, and potential legal liabilities, all which could have a material adverse effect on our business, prospects, operating results, or financial condition.

As part of growing our business, we may make acquisitions. If we fail to successfully select, execute, or integrate our acquisitions, then our business, results of operations and financial condition could be materially adversely affected, and our stock price could decline.

From time to time, we may undertake acquisitions to add new products and technologies, acquire talent, gain new sales channels, or enter into new markets or sales territories. In addition to possible stockholder approval, we may need approvals and licenses from relevant government authorities for targeted acquisitions and to comply with any applicable laws and regulations, which could result in increased delay and costs, and may disrupt our business strategy if we fail to achieve appropriate approvals described above. Furthermore, acquisitions and the subsequent integration of new assets, businesses, key personnel, customers, vendors and suppliers require significant attention from our management and could result in a diversion of resources from our existing business, which in turn could have an adverse effect on our operations. Acquired assets or businesses may not generate the financial results we expect. Acquisitions could result in the use of substantial amounts of cash, dilutive issuances of equity securities, the occurrence of significant goodwill impairment charges, amortization expenses for other intangible assets, as well as exposure to potential unknown liabilities of the acquired business. Moreover, the costs of identifying and consummating acquisitions may be significant.

To date, we have limited experience with acquisitions and the integration of acquired technology and personnel. Failure to successfully identify, complete, manage, and integrate acquisitions could materially and adversely affect our business, results of operations, and financial condition, and could cause our stock price to decline.

Our relationship with Chinese customers and our proposed international expansion into Asia could expose us to substantial business, regulatory, political, financial and economic risks.

In 2023, we executed a manufacturing services agreement with TPK, a Taiwanese contract manufacturer, to build and operate an additional high-volume facility for us in Asia. Under this agreement TPK will manufacture our LiDARs at a factory in Asia and utilize certain components and raw materials from Asia. In 2024, we executed an agreement to establish an engineering center in China, staffed by TPK, to assist with our industrialization efforts, including manufacturing process design, development and validation, component process verification and validation, supplier development support, system validation, cost analysis, and benchmarking. This expanded partnership with TPK is accretive to our contract manufacturing relationship, as well as to our contract manufacturing relationships with Celestica and Fabrinet.

Any failure in our ability to establish our presence in China, grow our relationships with the Chinese OEMs, serve our global OEMs in China and suppliers, successfully launch our products and maintain product quality, or to realize the anticipated benefits of our relationships could harm our brand, prospects, operating results, and financial condition, and have an adverse effect on our business.

Our operations in China could also expose us to substantial risks associated with doing business in China, such as, risks and regulations related to taxation, inflation, manufacturing, environmental, privacy, anti-mapping, cybersecurity, foreign currency exchange rates, as well as political risks, intellectual property risks, tariffs, import and export restrictions, the labor market and property and financial regulations. Additionally, we would need to maintain compliance with the market's rapidly changing regulations, including ongoing development of standards to define deployment requirements for higher levels of autonomy.

Our ability to operate in China may also be adversely affected by changes in, or our failure to comply with, Chinese laws, regulations, and standards. As we hire personnel to maintain our operations in China, we are exposed to risks associated with any changes to the employment and labor laws in China, which could increase our operating costs in China.

There is also significant uncertainty about the future relationship between the U.S. and China with respect to political risks, including but not limited to, trade policies, technology transfer restrictions in import and export, treaties, government regulations and tariffs.

Actions by the U.S. and China that may restrict the import, export or sale of, or reduce governmental support for, LiDARs and related components may result in reciprocal restrictions and escalation that could impair our ability to compete effectively and supply products to the inherently global automotive industry. The U.S. restriction on the export of certain AI chips and support in the CHIPS and Sciences Act for sponsoring domestic semiconductor development, U.S. restrictions on purchasing of certain Chinese LiDAR technology, Chinese restrictions on the export of certain Chinese LiDAR technology, and Chinese restriction of autonomous software development in China by foreign companies may lead to escalation on both sides that could impair our ability to operate our business successfully in both China and the U.S., as well as globally. See "*Changes to trade policy, tariffs, and import/export regulations may have a material adverse effect on our business, financial condition and results of operations*" below.

Defects, errors, lack of reliability or other issues in hardware or software, could reduce the market adoption of our new products, damage our reputation with current or prospective customers, expose us to product liability and other claims, and adversely affect our operating costs.

Our products, including our hardware and in-development software, are highly technical and very complex and require high standards to manufacture and have in the past and will likely in the future experience defects, security vulnerabilities, or other errors or reliability issues at various stages of development. We may be unable to in a timely manner release new products, manufacture existing products, correct problems that have arisen, or correct such problems to our customers' satisfaction. Additionally, errors, defects, security vulnerabilities, or other issues with our products, especially as new products are introduced or as new versions are released, could result in injury, which may be serious, to the end users of technology incorporating our products, or those in the surrounding area. Other consequences could include our customers never being able to commercialize technology incorporating our products, litigation against us, negative publicity, and other consequences. These risks are particularly prevalent in the highly competitive ADAS and autonomous driving technology markets. Some errors or defects in our products may only be discovered after they have been tested, commercialized, and deployed by customers. If an accident involving a vehicle using our technology were to occur and result in injuries or purported injuries or death, we may incur significant costs from product recalls and repair or replacement requirements, as well as lawsuits, including class actions, for product liability or other claims against us by our customers and end users, which could result in substantial costs and diversion of management resources. Our reputation or brand may also be damaged as a result of these problems, and customers may be reluctant to buy our products, which could adversely affect our ability to retain existing customers and attract new customers, and could adversely affect our financial results.

We could also face claims for breach of contract, fraud, tort, breach of warranty or product defects as a result of these problems, and our business liability insurance coverage could prove inadequate with respect to a claim, and future coverage may be unavailable on acceptable terms or at all.

In addition, if lawmakers or governmental agencies were to determine that the use of our products or certain ADAS or autonomous driving applications increased the risk of injury to all or a subset of end users, they may pass laws or adopt regulations that limit the use of our products, that increase our liability associated with the use of our products, or that regulate the use of or delay the deployment of ADAS and autonomous driving technology. Any of these events could adversely affect our brand, relationships with customers, operating results, or financial condition.

We may be subject to product liability or warranty claims that could result in significant direct or indirect costs, which could adversely affect our business and operating results.

We typically provide a limited-time warranty on our products. The occurrence of any material defects in our products could make us liable for damages and warranty claims. In addition, we could incur significant costs to correct any defects, warranty claims, or other problems, including costs related to product recalls. Any negative publicity related to the perceived quality of our products could affect our brand image, partner and customer demand, and adversely affect our operating results and financial condition. Also, warranty, recall, and product liability claims may result in litigation, including class actions, the occurrence of which could be costly, lengthy, and distracting and adversely affect our business and operating results.

If we do not maintain sufficient inventory or if we do not adequately manage our inventory, we could lose sales or incur higher inventory-related expenses, which could negatively affect our operating results.

To ensure adequate inventory supply, we must forecast inventory needs and expenses, place orders sufficiently in advance with our suppliers and manufacturing partners, and manufacture products based on our estimates of future demand for particular products. Fluctuations in the adoption of LiDAR products may affect our ability to forecast our future operating results, including revenue, gross margins, cash flows, and profitability. Our ability to accurately forecast demand for our products could be affected by many factors, including the rapidly changing nature of the ADAS and autonomous driving markets in which we operate, the uncertainty surrounding the market acceptance and commercialization of LiDAR technology, the emergence of new markets, an increase or decrease in customer demand for our products or for products and services of our competitors, product introductions by competitors, health epidemics and outbreaks, changing global demand as a result of geopolitical tension or wars, and any associated work stoppages or interruptions, unanticipated changes in general market conditions, and the weakening of economic conditions or consumer confidence in future economic conditions.

If our LiDAR products are commercialized in ADAS and autonomous driving applications, both of which are experiencing rapid growth in demand, we may face challenges acquiring adequate supplies to manufacture our products and/or we and our manufacturing partners may not be able to manufacture our products at a rate necessary to satisfy the levels of demand, which would negatively affect our revenue and operating results, and could result in damage to our brand and customer relationships. This risk may be exacerbated by the fact that we may not carry or be able to obtain for our manufacturers a significant amount of inventory to satisfy short-term demand increases. If we fail to accurately forecast customer demand, we may experience excess inventory levels or a shortage of products available for sale.

Inventory levels in excess of customer demand may result in inventory write-downs or write-offs and the sale of excess inventory at discounted prices, which would adversely affect our financial results, including our gross margin, and have a negative effect on our brand.

The average selling prices of our products could decrease rapidly over the life of the product, which may negatively affect our revenue and gross margin.

We may experience declines in the average selling prices of our products generally as our customers seek to commercialize ADAS and autonomous driving systems at prices low enough to achieve market acceptance. In order to sell products that have a declining average selling price per unit and maintain margins at the same time, we will need to continually reduce product and manufacturing costs. To manage manufacturing costs, we must engineer the most cost-effective design for our products. We must also continuously drive initiatives to reduce labor cost, improve worker efficiency, reduce the cost of materials, use fewer materials, and further lower overall product costs by carefully managing component prices, inventory and shipping cost. We also need to continually introduce new products with higher selling prices and gross margin in order to maintain our overall gross margin. If we are unable to manage the cost of older products or successfully introduce new products with higher gross margin, our revenue and overall gross margin would likely decline.

Adverse conditions in the automotive industry or the global economy more generally could have adverse effects on our results of operations.

While we make our strategic planning decisions based on the assumption that the markets we are targeting will grow, our business is dependent, in large part on, and directly affected by, business cycles and other factors affecting the global automotive industry and global economy generally. Automotive production and sales are highly cyclical and depend on general economic conditions and other factors, including consumer spending and preferences, changes in interest rates and credit availability, consumer confidence, fuel costs, fuel availability, environmental impact, governmental incentives, regulatory requirements, and political volatility, especially in energy-producing countries and growth markets. In addition, automotive production and sales can be affected by our automotive OEM customers' ability to continue operating in response to challenging economic conditions and in response to labor relations issues, regulatory requirements, trade agreements and other factors, such as geopolitical tensions and trade restrictions on the supply of semiconductors or LiDARs for vehicles. The volume of automotive production in North America, Europe and the rest of the world has fluctuated, sometimes significantly, from year to year, and we expect such fluctuations to give rise to fluctuations in the demand for our products. Any significant

adverse change in any of these factors may result in a reduction in automotive production and sales by our OEM customers and could have a material adverse effect on our business, results of operations, and financial condition.

Because LiDAR is new and since many of the markets in which we compete are new and rapidly evolving, it is difficult to forecast long-term end-customer adoption rates and demand for our products.

We are pursuing opportunities in markets that are undergoing rapid changes, including technological and regulatory changes, and it is difficult to predict the timing and size of our market opportunities. For example, LiDAR-based ADAS and autonomous driving applications require complex technology. Because these automotive systems depend on technology from many companies, commercialization of ADAS or autonomous driving systems could be delayed or impaired on account of certain technological components of ours or others not being ready to be deployed in vehicles. Although we currently are engaged with multiple commercial customers, these companies may not be able to commercialize our technology immediately, or at all. Regulatory, safety, or reliability developments, many of which are outside of our control, could also cause delays or otherwise impair commercial adoption of these new technologies, including whether government policy, regulation, consumer education, and ratings programs support autonomous technology or improved driver assistance systems.

Our future financial performance will depend on our ability to make timely investments in the correct market opportunities and to anticipate potential technological changes. If one or more of these markets experience a shift in existing customer or prospective customer demand, our products may not compete as effectively, if at all, and they may not be designed into commercialized products. Given the evolving nature of the markets in which we operate, it is difficult to predict customer demand or adoption rates for our products or the future growth of the markets in which we operate. As a result, any financial projections in this Form 10-K, and any market opportunity estimates and forecasts of market growth, necessarily reflect various estimates and assumptions that may not prove accurate and these projections could differ materially from actual results due to the risks included in this “Risk Factors” section, among others. If demand does not develop or if we cannot accurately forecast customer demand, the size of our markets, inventory requirements, our future financial results, our business, results of operations, and financial condition will be adversely affected. Even if markets experience growth, we may not grow our business at similar rates, or at all, since our business is subject to many risks and uncertainties set forth in this Form 10-K. Accordingly, any forecasts and estimates of market size and growth should not be taken as indicative of our future growth.

We currently have and target customers that are large corporations with substantial negotiating power, exacting product standards, and potentially competitive internal solutions. If we are unable to sell our products to these customers, our prospects and results of operations will be adversely affected.

Many of our customers and potential customers are large, multinational corporations with substantial negotiating power relative to us, and, in some instances, may have internal solutions that are competitive to our products. These large, multinational corporations also have significant development resources, which may allow them to acquire or develop independently, or in partnership with others, competitive technologies. Meeting the technical requirements and securing major commercial wins with any of these companies will require a substantial investment of our time and resources. We cannot assure that our products will secure major commercial wins from these or other companies or that we will generate meaningful revenue from the sales of our products to these key potential customers. If our products are not selected by these large corporations or if these corporations develop or acquire competitive technology, it will have an adverse effect on our business.

We are substantially dependent on our partnership with a few key customers, and our business could be materially and adversely affected if our partnership with any of such customers were terminated. Our financial position and results could be materially and adversely affected if we were unable to collect our invoices for any of our key customers.

We are dependent on a collection of large customers with strong purchasing power. In 2024, 2023 and 2022, our top 10 customers represented 70%, 66% and 69% of our revenue, respectively. In 2024, Scale.AI, in 2023, Daimler and Scale.AI, and in 2022, Daimler and Scale.AI each accounted for more than 10% of our annual revenue. The loss of business from any of our major customers (whether by lower overall demand for our products, cancellation of existing contracts or product orders, or the failure to design in our products or award us new business) could have a material adverse effect on our business.

To the extent ADAS and autonomous driving systems become widely accepted by major automotive OEMs, we expect that we will increasingly rely for our revenue on Tier 1 suppliers through which automotive OEMs often procure components. We expect that these Tier 1 suppliers will be responsible for certain hardware and software configuration activities specific to each OEM, and they may not exclusively carry our solutions.

There can be no assurance that we will be able to maintain our relationship with any of our key customers and secure orders for our products. If we are unable to maintain our relationship with any of our key customers, or if our arrangement is modified so that the economic terms become less favorable to us, then our business, financial results, and position would be materially adversely affected. There is also a risk that one or more of our major customers could be unable to pay our invoices as they become due or that a customer will simply refuse to make such payments if it experiences financial difficulties. If a

major customer were to enter into bankruptcy proceedings or similar proceedings, whereby contractual commitments are subject to stay of execution and the possibility of legal or other modification, we could be forced to record a substantial loss.

If we are unable to establish and maintain confidence in our long-term business prospects among customers within our industry and among securities analysts or investors, or are subject to negative publicity, then our financial condition, operating results, business prospects and access to capital may suffer materially.

Customers may be less likely to purchase our LiDAR solutions if they are not convinced that our business will succeed or that our service, support, and other operations will continue in the long term.

Similarly, suppliers and other third parties will be less likely to invest time and resources in developing business relationships with us if they are not convinced that our business will succeed. Accordingly, in order to build and maintain our business, we must maintain confidence among customers, suppliers, ratings agencies, securities analysts and investors, and other parties in our products, business prospects, and long-term financial viability. Maintaining such confidence may be particularly complicated by certain factors, including those that are largely outside of our control, such as our limited operating history, customer unfamiliarity with our LiDAR solutions, any delays in scaling production, delivery, and service operations to meet demand, competition and uncertainty regarding the future of ADAS and autonomous driving technology, or uncertainty around our other services, as well as our production and sales performance compared with market expectations.

We operate in a highly competitive market and some market participants have substantially greater resources. We compete against a large number of both established competitors and new market entrants.

The markets for sensing technology applicable to ADAS and autonomous solutions in the automotive industry are highly competitive. Our future success will depend on our ability to remain a leader in our targeted markets by continuing to develop, and protect from infringement advanced LiDAR technology in a timely manner and to stay ahead of existing and new competitors. Our competitors are numerous, and they compete with us directly by offering LiDAR products and indirectly by attempting to solve some of the same challenges with different technology. We face competition from camera and radar companies, other developers of LiDAR products, Tier 1 suppliers, and other technology and automotive supply companies, some of which have significantly greater resources than we do.

In the automotive market, our competitors and customers have commercialized both LiDAR and non-LiDAR-based ADAS technology that has achieved market adoption, strong brand recognition, and may continue to improve. Other competitors and customers are working towards commercializing autonomous driving technology, and either by themselves, or with a publicly announced partner, have substantial financial, marketing, R&D and other resources. Some of our customers in the ADAS and autonomous driving markets have announced development efforts or made acquisitions directed at creating their own LiDAR-based or other sensing technologies, which would compete with our solutions. We do not know how close these competitors are to commercializing new ADAS applications or autonomous driving systems. In markets outside of the automotive industry, our competitors, like us, seek to develop new sensing applications across industries. Even in these emerging markets, we face substantial competition from numerous competitors seeking to prove the value of their technology.

Additionally, increased competition may result in pricing pressure and reduced margins, and may impede our ability to increase the sales of our products or cause us to lose market share, any of which will adversely affect our business, results of operations, and financial condition.

If we are unable to achieve technological feasibility and commercialize our software products, including our perception and decision-making software products, such as our Proactive Safety™ and highway autonomy features, develop other new solutions, and improve existing solutions in a cost-effective and timely manner, then our competitive position may be negatively impacted and our business, results of operations, and financial condition would be adversely affected. The markets in which we compete are characterized by rapid technological change, which requires us to continue to develop new products and product innovations and could adversely affect market adoption of our products.

Our future success may depend upon our ability to develop our software products, including our perception and decision-making software products, such as our Proactive Safety™ and highway autonomy features, and our ability to introduce a variety of new capabilities, product offerings, and innovations to our existing product offerings, to address the changing needs of the markets in which we offer our products.

We are currently working on developing perception and decision-making software products, including our Proactive Safety™ and highway autonomy features as well as our Sentinel solution, all of which are important components of our business plan and which have not achieved ongoing technological feasibility as of the year ended December 31, 2024. We may encounter significant unexpected technical and production challenges, or delays in completing the development of these software products and other solutions, as well as ramping delivery of these solutions in a cost-efficient manner. We cannot guarantee that such software or other new products will be successfully developed, released in a timely manner, or at all, or

achieve satisfactory performance or market acceptance. Any such failure could materially adversely affect our business, results of operations and financial condition, and cause our stock price to decline.

Delays in delivering new products that meet customer requirements could damage our relationships with customers and lead them to seek alternative sources of supply, and we may not be able to achieve additional design wins with existing or new customers, or achieve broader market acceptance of our solutions. In addition, our success to date has been based on the delivery of our solutions to R&D programs in which developers are investing substantial capital to develop new systems. Our continued success relies on the success or continued progress of these R&D programs at these customers and ultimately transition from R&D phase into commercialized projects. As autonomous technology reaches the stage of large-scale commercialization, we will be required to develop and deliver solutions at price points that enable wider and ultimately mass-market adoption. Failure to achieve technological feasibility of our software products, delays in introducing products and innovations, the failure to choose correctly among technical alternatives, or the failure to offer innovative products or configurations at competitive prices may cause existing and potential customers to purchase our competitors' products or turn to alternative sensing technologies. Lastly, no matter how successfully our software may or may not perform, customers may choose to purchase and incorporate software from more established automotive suppliers, technology companies, or alternatively develop software in-house.

If we are unable to devote adequate resources to develop products, or cannot otherwise successfully develop products or system configurations that meet customer requirements on a timely basis or that remain competitive with technological alternatives, our products could lose market share, our revenue could decline, we may experience operating losses, and our business and prospects would be adversely affected.

While we intend to invest substantial resources to remain on the forefront of technological development, continuing technological changes in sensing technology, LiDAR, and the markets for these products, including the ADAS and autonomous driving industries, could adversely affect adoption of LiDAR and/or our products, either generally or for particular applications.

If we are unable to demonstrate the insurance benefits of LiDAR-based ADAS, develop and obtain regulatory approval to introduce a compelling insurance product, are unable to convey these cost-savings benefits to OEMs, their dealers, and consumers, our business may be negatively impacted. Because insurance rate plan benefits are not exclusive to us, other insurance companies may introduce similar savings plans; and while those will still benefit consumers and support the introduction of LiDARs in general, it may limit future success or longevity of our insurance product, which would negatively affect our business.

Our future success in insurance depends heavily on the technological success of LiDAR-based ADAS to reduce rates of accidents and injuries, whether the software is introduced by us or OEM customers source software elsewhere. While we have demonstrated the benefits of our prototype software in test track testing regimes designed to correlate with real world crash and injury data, there is no guarantee that actual software in production vehicles will operate the same or that it will have the same actuarial result in the real world. We do not have a track record of building, selling, and servicing insurance products, and we may encounter unexpected difficulties, including barriers from regulators due to lack of experience. Even if we are successful in bringing a compelling insurance product to market, OEMs or their dealers who will likely be the point of sale to consumers may ultimately not be interested or unable to convey the benefits, and consumers may not be able to appreciate the cost savings benefits.

We had identified material weaknesses in our internal control over financial reporting in the past, which were remediated. However, if we are unable to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results in a timely manner, which may adversely affect investor confidence in us and materially and adversely affect our business and operating results.

In connection with our financial statement close process for the year ended December 31, 2021, we had identified material weaknesses in the design and operating effectiveness of our internal control over financial reporting. The material weaknesses we identified resulted from a lack of a sufficient number of qualified personnel within our accounting and internal audit function who possessed an appropriate level of expertise to effectively perform functions relating to control environment, control activities, information and communication, and monitoring. In addition, these material weaknesses contributed to material weaknesses in information technology controls and journal entry review. These material weaknesses were remediated during the year ended December 31, 2022.

A material weakness 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 our financial statements would not be prevented or detected on a timely basis. These deficiencies could result in additional material misstatements to our consolidated financial statements that may not be prevented or detected on a timely basis.

Although we have remediated the material weaknesses, additional weaknesses in our internal controls may be discovered in the future. Any failure to further develop or maintain effective controls, or any difficulties encountered in our implementation

or improvement, could adversely affect our operating results, cause us to fail to meet our reporting obligations, and result in a restatement of our financial statements for prior periods. If any of these were to occur, investors may lose confidence in the accuracy and completeness of our financial reports, and the market price of our common stock could be adversely affected. In addition, we could become subject to litigation or investigations by Nasdaq, the SEC, or other regulatory authorities.

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

As of December 31, 2024, we had \$855.3 million of U.S. federal and \$891.4 million of state net operating loss carryforwards available to reduce future taxable income. Of the \$855.3 million in U.S. federal operating loss carryforwards, \$812.1 million will be carried forward indefinitely for U.S. federal tax purposes. The federal net operating loss carryforwards, if not utilized, will begin to expire in 2035. State net operating loss carryforwards, if not utilized, will begin to expire on various dates starting 2028. It is possible that we will not generate taxable income in time to use these net operating loss carryforwards before their expiration or at all. Under legislative changes made in December 2017, U.S. federal net operating losses incurred in 2018 and in future years may be carried forward indefinitely, but the deductibility of such net operating losses is limited. In addition, the federal and state net operating loss carryforwards and certain tax credits may be subject to significant limitations under Section 382 and Section 383 of the U.S. Tax Code, respectively, and similar provisions of state law. Under those sections of the U.S. Tax Code, if a corporation undergoes an “ownership change,” the corporation’s ability to use its pre-change net operating loss carryforwards and other pre-change attributes, such as research tax credits, to offset its post-change income or tax may be limited. In general, an “ownership change” will occur if there is a cumulative change in our ownership by “5 percent shareholders” that exceeds 50 percentage points over a rolling three-year period. Similar rules may apply under state tax laws.

We are highly dependent on the services of Austin Russell, our Founder, President and Chief Executive Officer.

We are highly dependent on Austin Russell, our Founder, President and Chief Executive Officer. Mr. Russell created our first LiDAR product and he remains deeply involved in all aspects of our business, including product development. The loss of Mr. Russell would adversely affect our business because his loss could make it more difficult to, among other things, compete with other market participants, manage our R&D activities, and retain existing customers or cultivate new ones. Negative public perception of, or negative news related to, Mr. Russell may also adversely affect our brand, relationships with customers, or standing in the industry.

Our business depends substantially on the efforts of our executive officers and highly skilled personnel, and our operations may be severely disrupted if we lost their services.

Competition for highly-skilled personnel is often intense, especially in Orlando, Florida and the San Francisco Bay Area, where two of our offices are located, and we may incur significant costs to attract highly-skilled personnel. We may not be successful in attracting, integrating, or retaining qualified personnel to fulfill our current or future needs. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining highly-skilled employees with appropriate qualifications. In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. Because we believe in an employee compensation philosophy based highly in equity to preserve capital and align employee interests with stockholders, a significant decrease in our stock price or the perceived value of our equity or equity awards may adversely affect our ability to retain highly-skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects could be adversely affected and attracting and retaining talent using equity may be more expensive. As we continue the process of “return to the office” and decrease the amount of remote work after COVID-19, we may be unable to retain the talent of employees unwilling to return to the office.

Our business could be materially and adversely affected by health epidemics and outbreaks.

While the impacts and risks related COVID-19 have significantly declined, any recurrence or new health epidemics or outbreaks could result in a material adverse impact on our or our customers’ business operations, including reduction or suspension of operations, disruption of supply chain, disruption of the global automotive business of our customers, or reduction in the global economy.

Interruption or failure of our information technology and communications systems could impact our ability to effectively provide our services.

We plan to include in-vehicle services and functionality that utilize data connectivity to monitor performance and timely capture opportunities to enhance performance and functionality. The availability and effectiveness of our services depend on the continued operation of information technology and communications systems. Our systems will be vulnerable to damage or interruption from, among others, physical theft, fire, terrorist attacks, natural disasters, power loss, war, telecommunications failures, viruses, denial or degradation of service attacks, ransomware, social engineering schemes, insider theft or misuse, or other attempts to harm our systems. We utilize reputable third-party service providers or vendors for all of our data other than our source code, and these providers could also be vulnerable to damage or interruption from actions or conditions similar to

those that could damage our systems, including sabotage and intentional acts of vandalism causing potential disruptions. Some of our systems will not be fully redundant, and our disaster recovery planning cannot account for all eventualities. Any problems with our third-party cloud hosting providers could result in lengthy interruptions in our business. In addition, our in-vehicle services and functionality are highly technical and complex technology, which may contain errors or vulnerabilities that could result in interruptions in our business or the failure of our systems.

We are subject to cybersecurity risks to our and our suppliers' operational systems, security systems, infrastructure, integrated software in our LiDAR solutions, and customer data processed by us or third-party vendors or suppliers and any material failure, weakness, interruption, cyber event, incident or breach of security could prevent us from effectively operating our business.

We are at risk for interruptions, outages, and breaches of: operational and manufacturing systems, including business, financial, accounting, product development, data processing, or production processes, owned by us or our third-party vendors or suppliers; facility security systems, owned by us or our third-party vendors or suppliers; in-product technology owned by us or our third-party vendors or suppliers; the integrated software in our LiDAR solutions; or customer or driver data that we process or our third-party vendors or suppliers process on our behalf. Such cyber incidents could materially disrupt operational systems and shipment of parts or products or result in a lockout of our operational systems; result in loss of intellectual property, trade secrets, or other proprietary or competitively sensitive information; compromise certain information of customers, employees, suppliers, drivers, or others; jeopardize the security of our facilities; or affect the performance of in-product technology and the integrated software in our LiDAR solutions. A cyber incident could be caused by disasters, insiders (through inadvertence or with malicious intent), or malicious third parties (including nation-states or nation-state supported actors) using sophisticated, targeted methods to circumvent firewalls, encryption, and other security defenses, including hacking, fraud, trickery or other forms of deception. The techniques used by cyber attackers change frequently and may be difficult to detect for long periods of time. Although we maintain information technology measures designed to protect us against intellectual property theft, data breaches, and other cyber incidents, such measures will require updates and improvements, and we cannot guarantee that such measures will be adequate to detect, prevent, or mitigate cyber incidents.

We have implemented and continue to enhance our cybersecurity controls and systems. The implementation, maintenance, segregation, and improvement of these systems requires significant management time, personnel, support, and cost. Moreover, there are inherent risks associated with developing, improving, expanding and updating current systems, including the disruption of our data management, procurement, production, finance, supply chain and sales and service processes. These risks may affect our ability to manage our data and inventory, procure parts or supplies, or produce, sell, deliver and service our solutions, adequately protect our intellectual property, or achieve and maintain compliance with, or realize available benefits under, applicable laws, regulations and contracts. We cannot be sure that the systems upon which we rely, including those of our third-party vendors or suppliers, will be effectively implemented, maintained, or expanded as planned. If we do not successfully implement, maintain, or expand these systems as planned, our operations may be disrupted, our ability to accurately and in a timely manner report our financial results could be impaired, and deficiencies may arise in our internal control over financial reporting, which may impact our ability to certify our financial results. Moreover, our proprietary information or intellectual property could be compromised or misappropriated and our reputation may be adversely affected. If these systems do not operate as we expect them to, we may be required to expend significant resources to make corrections or find alternative sources for performing these functions.

A significant cyber incident could impact production capability, harm our reputation, cause us to breach our contracts with other parties or subject us to regulatory actions or litigation, any of which could materially affect our business, prospects, operating results, and financial condition. In addition, our insurance coverage for cyber attacks may not be sufficient to cover all the losses we may experience as a result of a cyber incident.

Legal and Regulatory Risks Related to Our Business

We are subject to governmental export and import control laws and regulations. Our failure to comply with these laws and regulations could have an adverse effect on our business, prospects, results of operations, and financial condition.

Our products and solutions are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls. U.S. export control laws and regulations and economic sanctions prohibit the shipment of certain products and services to U.S. embargoed or sanctioned countries, governments, and persons. In addition, complying with export control and sanctions regulations for a particular sale may be time-consuming and result in delay or loss of sales opportunities. Exports of our products and technology must be made in compliance with these laws and regulations. If we fail to comply with these laws and regulations, we and certain of our employees could be subject to substantial civil or criminal penalties, including the possible loss of export or import privileges, fines, which may be imposed on us and responsible employees or managers, and, in extreme cases, the incarceration of responsible employees or managers.

Changes to trade policy, tariffs and import/export regulations may have a material adverse effect on our business, results of operations, and financial condition.

Geopolitical tensions and conflicts worldwide, including but not limited to China, may result in changing regulatory requirements, trade policies, export controls, import duties, and economic disruptions that could impact our operating strategies in the territories or countries where we currently purchase our components, sell our products, or conduct our business, as well as our government contracts and contracts with defense customers.

The increasing focus on the strategic national security importance of advanced semiconductors, autonomous vehicles, and artificial intelligence (“AI”) technologies may result in additional regulatory restrictions that target LiDAR specifically, and products and services capable of enabling or facilitating autonomous vehicle systems or AI systems, including some or all of our components, product, and service offerings. Such restrictions could include additional unilateral or multilateral export controls on certain products or technology, including but not limited to advanced semiconductors and AI technologies, including U.S. restrictions on export of advanced semiconductors to China, designation and restrictions on U.S. military purchases of LiDAR manufactured in China, China restriction on the collection and use of mapping data, which is an inhibitor to western companies developing autonomous vehicle software in China, and China’s export restrictions of certain highly specialized LiDARs intended for military use. As geopolitical tensions have increased, products associated with autonomous vehicles and AI, specifically including LiDAR, are increasingly the focus of national security and export control restrictions proposed by stakeholders in the U.S. and its allies, as well as China, and it is likely that additional unilateral or multilateral controls will be adopted. Such controls may be very broad in scope and application, prohibit us from exporting our products to any or all customers in one or more markets, including but not limited to China, and could negatively and materially impact our business, revenue, and financial results. Furthermore, disruption to worldwide semiconductor supply, including non-advanced semiconductors, has and may continue to affect production of vehicles.

The U.S. has recently instituted or proposed changes in trade policies that include those related to the treatment of technologies or products similar to LiDAR, and other government regulations affecting trade between the U.S. and other countries where we conduct our business. In addition, on February 1, 2025, President Trump announced the imposition of new tariffs on imports from Mexico, Canada and China, to take effect on February 4, 2025. On February 3, 2025, President Trump announced that the tariffs imposed on imports from Mexico and Canada would be paused for 30 days which went into effect on March 4, 2025; however, the new administration has paused tariffs on goods and services compliant with the United States-Mexico-Canada Agreement (USMCA) until April 2, 2025. Given Luminar’s production of products in Mexico, tariffs of this nature would have specific impact on those products we bring into the United States. The impact of such tariffs on our business and financial condition, if any, is subject to a number of factors that are not yet known and may continue to change, including the duration of such tariffs, the scope and nature of any tariffs, the amount of any tariffs, any countermeasures that the target countries may take in response to such tariffs.

Increasing use of economic sanctions or new or higher tariffs may increase prices for vehicles and adversely impact demand for such vehicles, which may negatively impact demand for our products or services, and increase prices for parts imported into the United States which could increase our costs and negatively impact our business and financial results. Additional export restrictions may not only impact our ability to serve international markets, but also provoke responses from foreign governments, including China, that negatively impact our supply chain or our ability to provide our products and services to customers in all markets worldwide, which could also adversely affect our business, results of operations, and financial condition. For example, such changes could adversely affect the automotive market, our ability to access key components or raw materials needed to manufacture our products (including, but not limited to, rare-earth metals), our ability to sell our products to customers outside the U.S. and the demand for our products. It may be time-consuming and expensive for us to alter our business operations to adapt to or comply with any such changes, and any failure to do so could have a material adverse effect on our business, results of operations, and financial condition.

We have in the past and may in the future become involved in legal and regulatory proceedings and commercial or contractual disputes, which could have an adverse effect on our profitability and consolidated financial position.

We may be, from time to time, involved in litigation, regulatory proceedings, and commercial or contractual disputes that may be significant. These matters may include, without limitation, disputes with our suppliers and customers, intellectual property claims, stockholder litigation, government investigations, class action lawsuits, personal injury claims, environmental issues, customs and value-added tax disputes, and employment and tax issues. In addition, we have in the past and could face in the future a variety of labor and employment claims against us, which could include but not limited to general discrimination, wage and hour, privacy, ERISA, or disability claims. In such matters, government agencies or private parties may seek to recover from us very large, indeterminate amounts in penalties or monetary damages (including, in some cases, treble or punitive damages) or seek to limit our operations in some way. These types of lawsuits could require significant management time and attention or could involve substantial legal liability, adverse regulatory outcomes, and/or substantial expenses to defend. Often these cases raise complex factual and legal issues and create risks and uncertainties. No assurances can be given

that any proceedings and claims will not have a material adverse impact on our operating results and consolidated financial position or that our established reserves or our available insurance will mitigate this impact.

We are subject to, and must remain in compliance with, numerous laws and governmental regulations concerning the manufacturing, use, distribution, and sale of our products. Some of our customers also require that we comply with their own unique requirements relating to these matters.

We primarily develop products for the automotive market, and the automotive industry is subject to specialized regulations in the U.S., Europe (UN/ECE), China, and other markets related to safety and the environment. These regulatory regimes are complex and change regularly, which may be a benefit or detriment. If we fail to adhere to these regulations or fail to continually monitor changes and adapt accordingly, we may be subject to litigation, loss of customers, or negative publicity and our business, results of operations, and financial condition will be adversely affected.

In 2024, the NHTSA in the U.S. published a Final Rule adopting new Federal Motor Vehicle Safety Standard No. 127 (“FMVSS 127”), which mandates advanced higher speed, no-contact AEB and PAEB systems on new cars and light trucks, with all vehicles being required to comply with these new requirements by 2029, although this Final Rule has been subject to a stay in implementation by the new administration and is also subject to litigation concerning the specifics of the rule. FMCSA had also introduced proposed rulemaking in 2023 with NHTSA to mandate AEB in heavy trucks. Depending on the outcome of the administration’s actions with respect to these rulemakings and the outcome of the litigation regarding FMVSS 127, such regulations and performance requirements they may promote the use of LiDAR-based safety systems, but if they fail to require the benefits that LiDAR-based safety brings, such regulations may impair our ability to introduce LiDAR in favor of weaker performing technologies.

We manufacture and sell products that contain electronic components, and such components may contain materials that are subject to government regulation in both the locations where we manufacture and assemble our products, as well as the locations where we sell our products. For example, certain laws or regulations limit the use of restricted materials or materials from certain regions, such as EU Registration, Evaluation, Authorisation and Restriction of Chemicals and the U.S. Toxic Substances Control Act, and those that relate to conflict minerals or forced labor. Since we operate on a global basis, this is a complex process, which requires continual monitoring of regulations and an ongoing compliance process to ensure that we and our suppliers are in compliance with existing regulations in each market where we operate. In addition, as a LiDAR technology company, we are subject to the Electronic Product Radiation Control Provisions of the Federal Food, Drug, and Cosmetic Act. These requirements are enforced by the U.S. Food and Drug Administration (“FDA”). Electronic product radiation includes laser technology. Regulations governing these products are intended to protect the public from hazardous or unnecessary exposure. Manufacturers are required to certify in product labeling and reports to the FDA that their products comply with applicable performance standards, as well as maintain manufacturing, testing, and distribution records for their products. Failure to comply with these requirements could result in enforcement action by the FDA, which could require us to cease distribution of our products, recall or remediate products already distributed to customers, or subject us to FDA enforcement.

If there is an unanticipated new regulation that significantly impacts our use and sourcing of various components or requires more expensive components, that regulation could materially adversely affect our business, results of operations, and financial condition.

We are subject to various environmental laws and regulations that could impose substantial costs upon us and cause delays in building production facilities for our products.

Concerns over environmental pollution and climate change have produced significant legislative and regulatory efforts on a global basis, and we believe this will continue both in scope and in the number of countries participating. In addition, as climate change issues become more prevalent, foreign, federal, state, and local governments, as well as our customers, have been responding to these issues. The increased focus on environmental sustainability may result in new regulations and customer requirements, or changes in current regulations and customer requirements, which could materially adversely impact our business, results of operations, and financial condition. If we are unable to effectively manage real or perceived issues, including concerns about environmental impacts or similar matters, sentiments toward us or our products could be negatively impacted, and our business, results of operations, or financial condition could suffer.

Our operations are and will be subject to international, federal, state and local environmental laws and regulations, and such laws and regulations could directly increase the cost of energy, which may have an effect on the way we manufacture products or utilize energy to produce our products. In addition, any new regulations or laws in the environmental area might increase the cost of raw materials or key components we use in our products. Environmental regulations require us to reduce product energy usage, monitor and exclude an expanding list of restricted substances, and participate in required recovery and recycling of our products. Environmental and health and safety laws and regulations can be complex, and we have limited experience complying with them. Capital and operating expenses needed to comply with environmental laws and regulations can be significant, and violations may result in substantial fines and penalties, third-party damages, suspension of production, or

a cessation of our operations. Contamination at properties we operate, we formerly operated, or to which hazardous substances were sent by us, may result in liability for us under environmental laws and regulations, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, which can impose liability for the full amount of remediation-related costs without regard to fault, for the investigation and cleanup of contaminated soil and ground water, for building contamination, for impacts to human health, and for damages to natural resources. The costs of complying with environmental laws and regulations and any claims concerning noncompliance, or liability with respect to contamination in the future, could have a material adverse effect on our operating results or financial condition.

We may face unexpected delays in obtaining the required permits and approvals in connection with our planned production facilities that could require significant time and financial resources and delay our ability to operate these facilities, which would adversely impact our business, prospects, operating results, and financial condition.

Our business may be adversely affected by changes in regulations applicable to the automotive industry and laser market or concerns that drive further regulation of the automotive and laser markets.

Government product safety regulations are an important factor for our business. Historically, these regulations have imposed increasingly stringent safety regulations and reporting requirements for vehicles and laser products. These safety regulations often require, or customers demand, that vehicles have more safety features per vehicle and more advanced safety products.

While we believe increasing automotive and laser safety standards will present a market opportunity for our products, government safety regulations are subject to change based on a number of factors that are not within our control, including new scientific or technological data, adverse publicity regarding industry recalls, safety risks of ADAS and autonomous driving systems, accidents involving our products, domestic and foreign political developments or considerations, and litigation relating to our products and our competitors' products. Changes in government regulations, especially in the ADAS and autonomous driving industries, could adversely affect our business. If government priorities shift and we are unable to adapt to changing regulations, our business may be materially and adversely affected.

The FDA regulation of lasers limits the transmission power of 905nm lasers compared to 1550nm lasers to mitigate the risk of human eye damage. This causes one performance benefit for our 1550nm LiDAR compared with many of our competitors. Currently, there are research projects within certain trade groups intended to demonstrate that higher power transmission of 905nm lasers is possible without causing eye damage. Should these initiatives succeed and ultimately result in changed regulation, it could reduce or eliminate one competitive advantage of 1550nm LiDAR, adversely affecting our business.

Federal and local regulators impose more stringent compliance and reporting requirements in response to product recalls and safety issues in the automotive and laser industries. As vehicles that carry our sensors go into production, the obligations of complying with safety regulations and reporting requirements could increase and it could require increased resources and adversely affect our business.

In addition, as vehicle regulators globally continue to consider new and enhanced emissions requirements, including electrification, to meet environmental and economic needs, as well as pursue new safety standards to address emerging traffic risks, OEMs may need to dedicate technology and cost additions to new vehicle designs to meet these emissions and safety requirements and, as a result, postpone the introduction of new ADAS and autonomous features due to cost pressures.

Failures, or perceived failures, to comply with privacy, data protection, and information security requirements in the variety of jurisdictions in which we operate may adversely impact our business, and such legal requirements are evolving, uncertain, and may require improvements in, or changes to, our policies and operations.

Our current and potential future operations and sales subject us to laws and regulations addressing privacy and the collection, use, storage, disclosure, transfer, and protection of a variety of types of data. For example, the European Commission has adopted the General Data Protection Regulation and California enacted the California Consumer Privacy Act of 2018, both of which provide for potentially material penalties for non-compliance. These regimes may, among other things, impose data security requirements, disclosure requirements, and restrictions on data collection, uses, and sharing that may impact our operations and the development of our business. While we generally do not have access to, collect, store, process, or share information collected by our solutions unless our customers choose to proactively provide such information to us, our products may evolve to both address potential customer requirements or to add new features and functionality. Therefore, the full impact of these privacy regimes on our business is rapidly evolving across jurisdictions and remains uncertain at this time.

We may also be affected by cyber attacks and other means of gaining unauthorized access to our products, systems, and data. For instance, cyber criminals or insiders may target us or third parties with which we have business relationships to obtain data in a manner that disrupts our operations or compromises our products or the systems into which our products are integrated.

We are assessing the continually evolving privacy and data security regimes and measures we believe are appropriate in response. Since these data security regimes are evolving, uncertain, and complex, especially for a global business like ours, we may need to update or enhance our compliance measures as our products, markets, and customer demands further develop, and these updates or enhancements may require implementation costs. In addition, we may not be able to monitor and react to all developments in a timely manner. The compliance measures we do adopt may prove ineffective. Any failure, or perceived failure, by us to comply with current and future regulatory or customer-driven privacy, data protection, and information security requirements, or to prevent or mitigate security breaches, cyber attacks, or improper access to, use of, or disclosure of data, or any security issues or cyber attacks affecting us, could result in significant liability, costs (including the costs of mitigation and recovery), and a material loss of revenue resulting from the adverse impact on our reputation and brand, loss of proprietary information and data, disruption to our business and relationships, and diminished ability to retain or attract customers and business partners. Such events may result in governmental enforcement actions and prosecutions, private litigation, fines and penalties, or adverse publicity, and could cause customers and business partners to lose trust in us, which could have an adverse effect on our reputation and business.

Regulations related to conflict minerals may cause us to incur additional expenses and could limit the supply and increase the costs of certain metals used in the manufacturing of our products.

We are subject to the requirements under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, specifically to determine, disclose and report whether our products contain conflict minerals. The implementation of these requirements could adversely affect the sourcing, availability, and pricing of the materials used in the manufacturing of components used in our products. In addition, we will incur additional costs to comply with the disclosure requirements, including costs related to conducting diligence procedures, to determine the sources of conflict minerals that may be used in or necessary to the production of our products, and, if applicable, potential changes to products, processes, or sources of supply as a consequence of such verification activities. It is also possible that our reputation may be adversely affected if we determine that certain of our products contain minerals not determined to be conflict-free or if we are unable to alter our products, processes, or sources of supply to avoid use of such materials.

Risks Related to Our Intellectual Property

Despite the actions we are taking to defend and protect our intellectual property, we may not be able to adequately protect or enforce our intellectual property rights or prevent unauthorized parties from copying or reverse engineering our solutions. Our efforts to protect and enforce our intellectual property rights and prevent third parties from violating our rights may be costly.

The success of our products and our business depends, in part, on our ability to obtain patents and other intellectual property rights and maintain adequate legal protection for our products in the U.S. and other international jurisdictions. We rely on a combination of patent, service mark, trademark, and trade secret laws, as well as confidentiality procedures and contractual restrictions, to establish and protect our proprietary rights, all of which provide only limited protection.

We cannot be assured that our currently-issued patents and trademarks and any patents and trademarks that may be issued or registered, as applicable, in the future with respect to pending or future applications will provide sufficiently broad protection or adequate defensive protection or competitive advantages, if at all, and they may prove to be unenforceable. Further, the scope of protection of issued patent claims is often difficult to determine. As a result, we cannot be certain that the patent applications that we file will issue, or that our issued patents will afford protection against competitors with similar technology. Moreover, others may design around our issued patents or independently develop technologies that are competitive to us.

Protecting against the unauthorized use of our intellectual property, products, and other proprietary rights is expensive and difficult to enforce, particularly internationally. In addition, patent and trademark protections may not be available in all countries in which we operate or in which we seek to enforce our intellectual property rights. We believe that our patents are foundational in the area of LiDAR products and intend to enforce the intellectual property portfolio we have built over the years. Unauthorized parties may attempt to copy or reverse engineer our LiDAR technology or certain aspects of our solutions that we consider proprietary. Litigation may be necessary in the future to enforce or defend our intellectual property rights, to prevent unauthorized parties from copying or reverse engineering our solutions, to determine the validity and scope of the proprietary rights of others, or to block the importation of infringing products into the U.S.

Any such litigation, whether initiated by us or a third party, could result in substantial costs and diversion of management resources, either of which could adversely affect our business, operating results, and financial condition. Even if we obtain favorable outcomes in litigation, we may not be able to obtain adequate remedies, especially in the context of unauthorized parties copying or reverse engineering our solutions.

Further, many of our current and potential competitors have the ability to dedicate substantially greater resources to defending intellectual property infringement claims and to enforcing their intellectual property rights than we have. Attempts to enforce our rights against third parties could also provoke these third parties to assert their own intellectual property or other rights against us or result in a holding that invalidates or narrows the scope of our rights, in whole or in part. Effective patent, trademark, service mark, copyright, and trade secret protection may not be available in every country in which our products are available, and competitors based in other countries may sell infringing products in one or more markets. Failure to adequately protect our intellectual property rights could result in our competitors offering similar products, potentially resulting in the loss of some of our competitive advantage and a decrease in our revenue, which would adversely affect our business, prospects, operating results, and financial condition.

Third-party claims that we are infringing their intellectual property rights, whether successful or not, could subject us to costly and time-consuming litigation or expensive licenses, and our business could be adversely affected.

Although we hold key patents related to our products, a number of companies, both within and outside of the LiDAR industry, hold other patents covering aspects of LiDAR products. In addition to these patents, participants in this industry typically also protect their technology, especially embedded software, through copyrights and trade secrets. As a result, there is frequent litigation based on allegations of infringement, misappropriation, or other violations of intellectual property rights. We have received, and in the future may receive, inquiries from other intellectual property holders and may become subject to claims that we infringe their intellectual property rights, particularly as we expand our presence in the market, expand to new use cases and face increasing competition. In addition, third parties may claim that the names and branding of our products infringe their trademark rights in certain countries or territories. If such a claim were to prevail, we may have to change the names and branding of our products in the affected territories, and we could incur other costs.

We currently have a number of agreements in effect pursuant to which we have agreed to defend, indemnify, and hold harmless our customers, suppliers, channel partners, and other partners from damages and costs that may arise from the infringement by our products of third-party patents or other intellectual property rights. The scope of these indemnity obligations varies, but may, in some instances, include indemnification for damages and expenses, including attorneys' fees. Our insurance may not cover all intellectual property infringement claims. A claim that our products infringe a third party's intellectual property rights, even if untrue, could adversely affect our relationships with our customers, may deter future customers from purchasing our products, and could expose us to costly litigation and settlement expenses. Even if we are not a party to any litigation between a customer and a third party relating to infringement by our products, an adverse outcome in any such litigation could make it more difficult for us to defend our products against intellectual property infringement claims in any subsequent litigation in which we are a named party. Any of these results could adversely affect our brand and operating results.

Our defense of intellectual property rights claims brought against us or our customers, suppliers, and channel partners could be time-consuming, expensive to litigate or settle, divert management resources and attention, and force us to acquire intellectual property rights and licenses, which may involve substantial royalty or other payments and may not be available on acceptable terms or at all. Further, a third party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages or obtain an injunction. An adverse determination also could invalidate our intellectual property rights and adversely affect our ability to offer our products to our customers and may require that we procure or develop substitute products that do not infringe, which could require significant effort and expense. Any of these events could adversely affect our business, prospects, operating results, and financial condition.

In addition to patented technology, we rely on our unpatented proprietary technology, trade secrets, processes, and know-how.

We rely on proprietary information (such as trade secrets, know-how, and confidential information) to protect intellectual property that may not be patentable or subject to copyright, trademark, trade dress, or service mark protection, or that we believe is best protected by means that do not require public disclosure. We generally seek to protect this proprietary information by entering into confidentiality agreements, consulting services, or employment agreements that contain non-disclosure and non-use provisions with our employees, consultants, contractors, and third parties. However, we may fail to enter into the necessary agreements, and even if entered into, these agreements may be breached or may otherwise fail to prevent disclosure, third-party infringement or misappropriation of our proprietary information, may be limited as to their term, and may not provide an adequate remedy in the event of unauthorized disclosure or use of proprietary information. We have limited control over the protection of trade secrets used by our current or future manufacturing partners and suppliers and could lose future trade secret protection if any unauthorized disclosure of such information occurs. In addition, our proprietary information may otherwise become known or be independently developed by our competitors or other third parties.

To the extent that our employees, consultants, contractors, advisors, and other third parties use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to

obtain or maintain protection for our proprietary information could adversely affect our competitive business position. Furthermore, laws regarding trade secret rights in certain markets where we operate may afford little or no protection to our trade secrets.

We also rely on physical and electronic security measures to protect our proprietary information, but we cannot provide assurance that these security measures will not be breached or provide adequate protection for our property. There is a risk that third parties may obtain and improperly utilize our proprietary information to our competitive disadvantage. We may not be able to detect or prevent the unauthorized use of such information or take appropriate and timely steps to enforce our intellectual property rights.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

We may be subject to claims that we or our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of an employee's former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and demand on management resources.

We use certain software and data governed by open-source licenses, which under certain circumstances could adversely affect our business, results of operations, and financial condition.

Certain of our software and data, as well as that of our customers and vendors, may be derived from or otherwise incorporate so-called "open source" software and data that is generally made available to the public by its authors and/or other third parties. Some open-source software is made available under licenses that impose certain obligations on us regarding modifications or derivative works we create based upon the open-source software. These obligations may require us to make source code for the derivative works available to the public and/or license such derivative works under a particular type of license, rather than the forms of license we customarily use to protect our intellectual property. Additionally, if we combine our proprietary software with open-source software in certain manners, we could be required to release the source code of our proprietary software or to make our proprietary software available under open-source licenses to third parties at little or no cost or on unfavorable license terms. In the event that the copyright holder of, or other third party that distributes, open-source software alleges that we have not complied with the terms of an open-source license, we could incur significant legal costs defending ourselves against such allegations. If such claims are successful, we could be subject to significant damages, required to release the source code that we developed using that open-source software to the public, enjoined from distributing our software and/or required to take other actions that could adversely affect our business, results of operations and financial condition.

While we take steps to monitor the use of open-source software in our solutions, processes, and technology and try to ensure that no open-source software is used in such a way as to require us to disclose the source code to the related product, processes, or technology when we do not wish to do so, such use could inadvertently occur. Additionally, if a third-party software provider has incorporated certain types of open-source software into software we license from such third party for our solutions, processes, or technology, we could, under certain circumstances, be required to disclose the source code to our solutions, processes, or technology. This could harm our intellectual property position and adversely affect our business, results of operations, and financial condition.

Further, the use of open-source software can lead to vulnerabilities that may make our software susceptible to attack, and although some open-source vendors provide warranty and support agreements, it is common for such software to be available "as is" with no warranty, indemnity, or support. Although we monitor our use of such open-source code to avoid subjecting our solutions to unintended conditions, such use, under certain circumstances, could materially adversely affect our business, operating results, and financial condition, including if we are required to take remedial action that may divert resources away from our development efforts.

Risks Related to Our Indebtedness

The large amount of our outstanding indebtedness and liabilities limits the cash flow available for our operations and exposes us to risks that could adversely affect our business, results of operations, and financial condition.

As of December 31, 2024, our total indebtedness was \$500.5 million, net of unamortized debt discount and issuance costs. Our indebtedness comprised of \$201.0 million in aggregate principal amount of convertible senior unsecured notes due 2026 (the "2026 Convertible Senior Notes"), \$95.5 million in aggregate principal amount of first-lien, senior secured floating rate notes (the "Senior Notes"), and \$204.0 million in aggregate principal amount of second-lien, convertible senior secured notes due 2030 (the "2030 Convertible Notes" and together with the 2026 Convertible Senior Notes, the "Convertible Notes"),

and together with the Convertible Notes and the Senior Notes, the “Notes”), which we issued in August 2024. We may also incur additional indebtedness to meet future financing needs. Our indebtedness could have significant negative consequences for our securities holders and our business, results of operations and financial condition by, among other things:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, which will reduce the amount of cash available for other purposes;
- limiting our flexibility to plan for, or react to, changes in our business;
- diluting the interests of our existing stockholders as a result of issuing shares of our Class A common stock upon conversion of the notes; and
- placing us at a possible competitive disadvantage with competitors that are less leveraged than us or have better access to capital.

Our business may not generate sufficient funds, and we may otherwise be unable to maintain sufficient cash reserves, to pay amounts due under our indebtedness, including the Notes, and our cash needs may increase in the future. In addition, the Notes contain, and any future indebtedness that we may incur may contain, financial and other restrictive covenants that limit our ability to operate our business, raise capital or make payments under our other indebtedness. If we fail to comply with these covenants or to make payments under our indebtedness when due, then we would be in default under that indebtedness, which could, in turn, result in that and our other indebtedness becoming immediately payable in full.

The terms of our Senior Notes and 2030 Convertible Notes require us to maintain minimum liquidity and place restrictions on our operating and financial flexibility. If we fail to comply with any covenants contained in the indentures governing the notes, holders may declare all of the applicable series of notes to be due and payable, and in the case of the Senior Notes and 2030 Convertible Notes, exercise rights with respect to collateral securing those notes.

The Senior Notes are secured by a first priority lien on, and the 2030 Convertible Notes are secured by a second priority lien on, substantially all of our and the guarantors’ assets (including intellectual property) and are guaranteed by certain of our current and future material subsidiaries on a senior secured basis and a second-priority senior secured basis, respectively, subject to certain criteria and exceptions.

The indenture governing the Senior Notes contains covenants that limit our and our subsidiaries’ ability to, among other things: (i) incur, assume, or guarantee additional indebtedness; (ii) grant or incur liens securing indebtedness; (iii) make certain restricted payments and investments; (iv) sell or otherwise dispose of assets, including capital stock of subsidiaries; (v) enter into transactions with affiliates; (vi) in the case of us and any guarantor, consolidate, amalgamate or merge with or into, or sell all or substantially all of its assets to, another person; (vii) declare or pay dividends or make other distributions; and (viii) make modifications to certain of our material debt agreements. In addition, the indenture governing the Senior Notes contains a covenant that provides that we may not permit liquidity (calculated as the sum of (a) unused commitments then available to be drawn under any revolving credit facility permitted under the indenture, plus (b) the amount of unrestricted cash and cash equivalents held by us and our subsidiary guarantors) to be less than \$35.0 million as of the last day, or for more than 5 days, of any calendar month. The indenture governing the 2026 Convertible Senior Notes contain similar restrictive covenants and a similar minimum liquidity requirement, but at a \$31.5 million level.

If we fail to comply with these or any of the other covenants under the indentures governing the Notes and are unable to obtain a waiver or amendment, the holders of notes may, among other things, declare all of the applicable series of Notes to be due and payable and, with respect to the Senior Notes and 2030 Convertible Notes, exercise rights with respect to collateral securing those notes, each of which could significantly harm our business, prospects, and financial condition, and could cause the price of our Class A common stock to decline.

Under the indentures governing the Senior Notes and 2030 Convertible Notes, if we do not reduce the outstanding principal amount of the 2026 Convertible Senior Notes to less than \$100 million by June 30, 2026, the maturity date of the Senior Notes and the 2030 Convertible Notes will advance to September 15, 2026.

The Senior Notes will mature on the earlier of (i) August 15, 2028 or (ii) if more than \$100 million of the 2026 Convertible Senior Notes remain outstanding as of June 30, 2026, then September 15, 2026. The 2030 Convertible Notes will mature on the earlier of (i) January 15, 2030 or (ii) if more than \$100 million of the 2026 Convertible Senior Notes remain outstanding as of June 30, 2026, then September 15, 2026. If we are unable to reduce the outstanding principal amount of the 2026 Convertible Senior Notes to less than \$100 million by June 30, 2026, we may not have sufficient cash or be able to raise funds sufficient to pay the Senior Notes and 2030 Convertible Notes on their earlier maturity date.

We may be unable to raise the funds necessary to repurchase the notes for cash following a fundamental change, or to pay any cash amounts due upon conversion, and our other indebtedness may limit our ability to repurchase the notes or pay cash upon their conversion.

Under the indenture governing our Senior Notes, if a “change of control” occurs, and under the indenture governing the 2030 Convertible Notes, if a “fundamental change” occurs, then the respective holders may require us to repurchase their respective notes at a cash repurchase price equal to 103% and 100%, respectively, of the principal amount of the notes to be repurchased, plus accrued and unpaid interest, if any. A holder that elects to convert its 2030 Convertible Notes in connection with a fundamental change may be entitled to receive a make-whole adjustment to the conversion rate for such notes in connection with such corporate event in certain circumstances. The definition of “fundamental change” includes certain business combination transactions involving us and certain de-listing events with respect to our Class A common stock. In addition, upon conversion, we may satisfy part or all of our conversion obligation in cash, shares of our Class A common stock or a combination of cash and shares, at our election. We may not have enough available cash or be able to obtain financing at the time we are required to repurchase the notes or pay any cash amounts due upon conversion. In addition, applicable law, regulatory authorities and the agreements governing our existing and any future indebtedness may restrict our ability to repurchase the notes or pay any cash amounts due upon conversion. Our failure to repurchase notes or to pay any cash amounts due upon conversion or when otherwise required will constitute a default under the indentures governing the notes. A default under the indenture governing the Senior Notes or a default under the indenture governing the 2030 Convertible Notes or the fundamental change itself could also lead to a default under agreements governing other indebtedness which we have incurred or may incur, which may result in that other indebtedness becoming immediately payable in full. We may not have sufficient funds to satisfy all amounts due under the other indebtedness and the notes.

The accounting method for the notes could adversely affect our reported financial condition and results.

In August 2020, the Financial Accounting Standards Board published an Accounting Standards Update, which we refer to as ASU 2020-06, to reduce the number of accounting models for convertible debt instruments. The elimination of the separate accounting to reduce the interest expense that we have recognized and expect to recognize in the future for the notes for accounting purposes. Under ASU 2020-06, the embedded conversion features are no longer separated from the host contract for convertible instruments with conversion features that are not required to be accounted for as derivatives under Topic 815, or that do not result in substantial premiums accounted for as paid-in capital. Consequently, the notes are accounted for as a single liability measured at amortized cost. Further, ASU 2020-06 eliminated the use of the treasury stock method for convertible instruments that can be settled in whole or in part with equity, and instead requires application of the “if-converted” method. Under that method, diluted earnings per share would generally be calculated assuming that all the notes were converted solely into shares of Class A common stock at the beginning of the reporting period, unless the result would be anti-dilutive. The application of the if-converted method may reduce our reported diluted earnings per share.

Furthermore, if any of the conditions to the convertibility of the notes is satisfied, then we may be required under applicable accounting standards to reclassify the liability carrying value of the notes as a current, rather than a long-term, liability. This reclassification could be required even if no noteholders convert their notes and could materially reduce our reported working capital.

The conditional conversion feature of our Convertible Notes, if triggered, may adversely affect our financial condition and operating results.

In the event the conditional conversion feature of the Convertible Notes is triggered, holders of such notes will be entitled to convert the notes at any time during specified periods at their option and holders of the new secured convertible notes are entitled to convert their notes at any time at their option. If one or more holders elect to convert their notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our Class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity.

If a significant portion of our Convertible Notes were converted, the number of shares of Class A common stock that would be issued upon conversion will cause substantial dilution to our stockholders. In addition, upon conversion of the 2030 Convertible Notes issued in August 2024 (except a conversion following certain events that constitute a “make-whole fundamental change”), we would be required to pay a make-whole premium upon conversion equal to the lesser of (i) all regularly scheduled interest payments that would be due on the portion of such secured convertible notes being redeemed for the succeeding two year period and (ii) all regularly scheduled interest payments that would be due on the portion of such secured convertible notes being redeemed through the maturity date, and is capped at the maximum number of shares that would be issuable in connection with a “make-whole fundamental change”.

The capped call transactions may affect the value of the 2026 Convertible Senior Notes and our Class A common stock.

In connection with the 2026 Convertible Senior Notes, we entered into privately negotiated capped call transactions with the option counterparties. The capped call transactions are expected generally to reduce the potential dilution to our Class A common stock upon any conversion of the 2026 Convertible Senior Notes and/or offset any potential cash payments we are required to make in excess of the principal amount of converted notes, as the case may be, with such reduction and/or offset subject to a cap.

We have been advised that, in connection with establishing their initial hedges of the capped call transactions, the option counterparties or their respective affiliates entered into various derivative transactions with respect to our Class A common stock and/or purchased shares of our Class A common stock.

In addition, the option counterparties and/or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our Class A common stock and/or purchasing or selling our Class A common stock or other securities of ours in secondary market transactions from time to time prior to the maturity of the 2026 Convertible Senior Notes (and are likely to do so following any conversion of the 2026 Convertible Senior Notes, any repurchase of the 2026 Convertible Senior Notes by us on any fundamental change repurchase date, any redemption date, or any other date on which the notes are retired by us, in each case if we exercise the relevant election to terminate the corresponding portion of the capped call transactions). This activity could also cause or avoid an increase or a decrease in the market price of our Class A common stock.

We are subject to counterparty risk with respect to the capped call transactions, and the capped call transactions may not operate as planned.

The option counterparties are financial institutions, and we are subject to the risk that they might default under the capped call transactions. Our exposure to the credit risk of the option counterparties will not be secured by any collateral. Global economic conditions have from time to time resulted in the actual or perceived failure or financial difficulties of many financial institutions, including the bankruptcy filing by Lehman Brothers Holdings Inc. and its various affiliates. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with that option counterparty. Our exposure will depend on many factors, but, generally, the increase in our exposure will be correlated with an increase in the market price or the volatility of our Class A common stock. In addition, upon a default by an option counterparty, we may suffer more dilution than we currently anticipate with respect to our Class A common stock. We can provide no assurance as to the financial stability or viability of any option counterparty.

In addition, the capped call transactions are complex, and they may not operate as planned. For example, the terms of the capped call transactions may be subject to adjustment, modification or, in some cases, renegotiation if certain corporate or other transactions occur. Accordingly, these transactions may not operate as we intend if we are required to adjust their terms as a result of transactions in the future or upon unanticipated developments that may adversely affect the functioning of the capped call transactions.

Risks Related to Ownership of Our Class A Shares

We will require additional capital to meet our financial obligations and fund our operations, and this capital may not be available on acceptable terms or at all.

We have been dependent on proceeds from our Equity Financing Program and debt financing to make payments on our liabilities and to fund certain other activities, and we will need to raise additional capital through equity or debt financing or incurring other indebtedness in order to continue to pay our liabilities, fund operations and execute on our business plan. However, any decline in the market price of our Class A common stock could impair our ability to raise capital. Separately, additional financing may not be available on favorable terms, or at all. If adequate funds are not available on acceptable terms, we may be unable to meet our obligations and fund our operations. Because our decision to issue debt or equity in the future will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing, nature, or success of our future capital raising efforts.

Securities and agreements involving the issuance of debt will generally rank senior to the Class A common stock and have priority in the event of a liquidation. Such securities also may be governed by an indenture or other instrument containing covenants restricting the Company's operating flexibility. For example, the indentures governing our debt financing arrangements contain restrictive covenants and in some cases, a minimum liquidity requirement. For more information relating to these notes, see Note 8 of the Notes to the Consolidated Financial Statements included in this Form 10-K.

Additionally, any equity securities or convertible or exchangeable securities that we issue in the future may have rights, preferences and privileges more favorable than those of the Class A common stock and would further dilute existing

stockholders. For example, we have an at-the-market program, which we entered in May 2024, to issue and sell up to \$150.0 million of shares of our Class A common stock through a sales agent under the Equity Financing Program. In August 2024, we increased the Equity Financing Program by an additional \$50.0 million and in March 2025, we further increased the program by an additional \$75.0 million. We issued and sold \$89.4 million under the Equity Financing Program in 2024. In addition, in order to further business relationships with current or potential partners, vendors, or other parties, we have issued, and in the future may issue equity or equity-linked securities to such current or potential partners, vendors, or other parties. Sales of shares of Class A common stock in the public market, or the perception that these sales or conversions might occur, may depress the market price of Class A common stock and could impair our ability to raise capital through the sale of additional equity securities.

Our Second Amended and Restated Certificate of Incorporation, as amended, provides, subject to limited exceptions, that the Court of Chancery of the State of Delaware (the “Chancery Court”) will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders’ ability to obtain a chosen judicial forum for disputes with us or our directors, officers, employees, or stockholders.

Our Second Amended and Restated Certificate of Incorporation, as amended, requires, to the fullest extent permitted by law, that derivative actions brought in our name, actions against directors, officers, and employees for breach of fiduciary duty and other similar actions may be brought in the Chancery Court or, if that court lacks subject matter jurisdiction, another federal or state court situated in the State of Delaware. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and consented to the forum provisions in our Second Amended and Restated Certificate of Incorporation. In addition, our Second Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws provide that the federal district courts of the United States shall be the exclusive forum for the resolution of any suit brought to enforce a duty or liability created by the Securities Act of 1933, as amended (the “Securities Act”) or the Securities Exchange Act of 1934, as amended (the “Exchange Act”) or any other claim for which the U.S. federal courts have exclusive jurisdiction. The Second Amended and Restated Certificate of Incorporation further provides that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the U.S. will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

In March 2020, the Delaware Supreme Court issued a decision in *Salzburg et al. v. Sciabacucchi*, which found that an exclusive forum provision providing for claims under the Securities Act to be brought in federal court is facially valid under Delaware law. We intend to enforce this forum provision, but we do not know whether courts in other jurisdictions will agree with this decision or enforce it.

The choice of forum providing that a state or federal court located within the state of Delaware will be the exclusive forum for substantially all disputes between us and our stockholders may limit a stockholder’s ability to bring a claim in a judicial forum of its choosing for disputes with us or any of our directors, officers, other employees, or stockholders, which may discourage lawsuits with respect to such claims. If any other court were to find the choice of forum provision contained in our Second Amended and Restated Certificate of Incorporation 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 charter documents and Delaware law could prevent a takeover that stockholders consider favorable and could also reduce the market price of our stock.

Our Second Amended and Restated Certificate of Incorporation, as amended, and Amended and Restated Bylaws contain provisions that could delay or prevent a change in control. These provisions could also make it more difficult for stockholders to elect directors and take other corporate actions. These provisions include:

- providing for a classified Board of Directors with staggered, three-year terms;
- authorizing our Board to issue Preferred Stock with voting or other rights or preferences that could discourage a takeover attempt or delay changes in control;
- prohibiting cumulative voting in the election of directors;
- providing that vacancies on our Board may be filled only by a majority of directors then in office, even though less than a quorum;
- prohibiting the adoption, amendment or repeal of the Amended and Restated Bylaws or the repeal of the provisions of our Second Amended and Restated Certificate of Incorporation regarding the election and removal of directors without the required approval of at least two-thirds of the shares entitled to vote at an election of directors;
- prohibiting stockholder action by written consent;

- limiting the persons who may call special meetings of stockholders; and
- requiring advance notification of stockholder nominations and proposals.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board, which is responsible for appointing the members of our management. In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the “DGCL”). These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time without the consent of our Board.

These and other provisions in our Second Amended and Restated Certificate of Incorporation, as amended and our Amended and Restated Bylaws and under Delaware law could discourage potential takeover attempts, reduce the price investors might be willing to pay in the future for shares of Class A common stock, and result in the market price of Class A common stock being lower than it would be without these provisions.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our Second Amended and Restated Certificate of Incorporation, as amended and Amended and Restated Bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law.

In addition, as permitted by Section 145 of the DGCL, the Amended and Restated Bylaws and the indemnification agreements that we have entered into with our directors and officers provide that:

- we will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person’s conduct was unlawful;
- we may, in our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- we will be required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if we are ultimately determined that such person is not entitled to indemnification;
- we will not be obligated pursuant to our Amended and Restated Bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our Board or brought to enforce a right to indemnification;
- the rights conferred in the Amended and Restated Bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees, and agents and to obtain insurance to indemnify such persons; and
- we may not retroactively amend our Amended and Restated Bylaw provisions to reduce our indemnification obligations to directors, officers, employees, and agents.

The dual class structure of our common stock has the effect of concentrating voting control with Austin Russell, our Founder, President and Chief Executive Officer. This will limit or preclude stockholders’ ability to influence corporate matters, including the outcome of important transactions, including a change in control.

Shares of our Class B common stock, \$0.0001 par value per share (“Class B common stock”), have 10 votes per share, while shares of Class A common stock have one vote per share. Austin Russell, our Founder, President and Chief Executive Officer, currently holds all of the issued and outstanding shares of Class B common stock. Accordingly, Mr. Russell held approximately 56.1% of the voting power of our outstanding capital stock as of December 31, 2024 and will be able to control matters submitted to our stockholders for approval, including the election of directors, amendments of our organizational documents, and any merger, consolidation, sale of all or substantially all of our assets, or other major corporate transactions. Mr. Russell may have interests that differ from the interests of other stockholders of the Company and may vote in a way with which other stockholders of the Company disagree and which may be adverse to other stockholders’ interests. This concentrated control may have the effect of delaying, preventing or deterring a change in control of the Company, could deprive our stockholders of an opportunity to receive a premium for their capital stock as part of a sale of the Company, and might ultimately affect the market price of shares of Class A common stock.

In connection with the execution of the merger agreement in connection with our business combination (the “Business Combination”) with Gores Metropoulos, Inc. (“Gores”), Austin Russell entered into a voting agreement, dated as of August 24,

2020 (the “Voting Agreement”) with Gores. Under the Voting Agreement, Mr. Russell agreed that, following the consummation of the Business Combination, if he is involuntarily terminated from his position as the Chief Executive Officer of the Company as a result of his conviction of, or pleading guilty or nolo contendere to, a felony that has a material negative impact on the Company, at any meeting of the stockholders of the Company at which directors are to be elected following the consummation of the Business Combination, Mr. Russell, or any of his permitted successors or assigns, will not vote more than 10% of the Class B common stock he or they beneficially own in any director election.

We are a controlled company within the meaning of The Nasdaq Stock Market listing standards, and, as a result, qualify for exemptions from certain corporate governance requirements that provide protection to stockholders of other companies. To the extent we utilize any of these exemptions, holders of our capital stock will not have the same protections afforded to stockholders of companies that are subject to such requirements. We do not currently intend to rely on the exemptions afforded to controlled companies at this time.

So long as more than 50% of the voting power for the election of our directors is held by an individual, a group, or another company, we will qualify as a “controlled company” under The Nasdaq Stock Market listing requirements. Austin Russell controls a majority of the voting power of our outstanding capital stock. As a result, we are a “controlled company” under the Nasdaq Stock Market rules. As a controlled company, we are exempt from certain Nasdaq corporate governance requirements, including those that would otherwise require our Board to have a majority of independent directors and require that we establish a compensation committee comprised entirely of independent directors, or otherwise ensure that the compensation of our executive officers and nominees for directors are determined or recommended to our Board by independent members of our Board. While we do not currently rely on any of these exemptions, we will be entitled to do so for as long as we are considered a “controlled company,” and to the extent we rely on one or more of these exemptions, holders of our capital stock will not have the same protections afforded to stockholders of companies that are subject to all of Nasdaq’s corporate governance requirements.

We are a smaller reporting company and the reduced reporting requirements applicable to smaller reporting companies may make our Class A common stock less attractive to investors.

We are a smaller reporting company which allows us to take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not smaller reporting companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, reduced disclosure obligations regarding executive compensation in our annual report, periodic reports and proxy statements and providing only two years of audited financial statements in our annual report and periodic reports. We cannot predict whether investors will find our Class A common stock less attractive if we rely on certain or all of these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile and may decline.

Our dual class structure may depress the trading price of the Class A common stock.

Our dual class structure may result in a lower or more volatile market price of our Class A common stock, adverse publicity, or other adverse consequences due to disfavor of a dual class structure by certain organizations. For example, certain index providers have announced restrictions on including companies with multiple-class share structures in certain of their indexes. S&P Dow Jones and FTSE Russell had previously announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices, including the S&P 500, pursuant to which companies with multiple classes of shares of common stock are excluded. In addition, several stockholder advisory firms have policies that oppose the use of multiple class structures. As a result, the dual class structure of our common stock may cause stockholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices or any actions or publications by stockholder advisory firms critical of our corporate governance practices or capital structure could adversely affect the value and trading market of our Class A common stock.

The market price and trading volume of Class A common stock is volatile and could decline significantly.

The market price of our Class A common stock has been and is expected to continue to be volatile and has experienced continued declines. In addition, the trading volume of our Class A common stock may fluctuate and cause significant price variations to occur. We cannot assure you that the market price of Class A 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 Form 10-K;
- actual or anticipated differences in our estimates, or in the estimates of analysts or investors, for our revenues, margins, results of operations, level of indebtedness, liquidity or financial condition;
- additions and departures of key personnel;

- failure to comply with the requirements of Nasdaq, the Sarbanes-Oxley Act, or other laws or regulations;
- future issuances, sales, resales or repurchases or anticipated issuances, sales, resales, or repurchases, of our securities;
- publication of research reports and news articles about us;
- the performance and market valuations of other similar companies;
- commencement of, or involvement in, litigation involving us;
- 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;
- changes in accounting principles, policies, and guidelines; and
- other events or factors, including those resulting from infectious diseases, health epidemics, natural disasters, war, acts of terrorism, or responses to these events.

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.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business, or our market, or if they change their recommendations regarding our Class A common stock adversely, then the price and trading volume of our Class A common stock could decline.

The trading market for our Class A common stock will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market, or our competitors. If any of the analysts who cover us change their recommendation regarding our stock adversely, publish less favorable research or reports, or provide more favorable research and recommendations about our competitors, the price of our Class A common stock would likely decline. If any of the analysts who cover us were to cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause the price of our Class A common stock and/or trading volume to decline.

Our failure to meet the continued listing requirements of Nasdaq could result in a delisting of our securities.

Due to declines in our stock price, we failed to meet Nasdaq's minimum closing bid price requirement in 2024, and as a result, we completed a 1-for-15 reverse stock split in order to regain compliance with this listing requirement. If we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements, or fail to satisfy the minimum closing bid price requirement again, Nasdaq will take steps to delist our securities unless we appeal and are successful in such appeal. Such a delisting would likely have a negative effect on the market price of our Class A common stock and would impair the ability of stockholders to sell or purchase their securities and could constitute a "fundamental change" under the terms of our indebtedness which would require us to repurchase certain of our indebtedness, and if we are unable to do so, such failure would constitute a default and could have a material adverse effect on us. For more information about risks related to a "fundamental change," see "*We may be unable to raise the funds necessary to repurchase the notes for cash following a fundamental change, or to pay any cash amounts due upon conversion, and our other indebtedness may limit our ability to repurchase the notes or pay cash upon their conversion.*"

In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with the listing requirements would allow our securities to become listed again, stabilize the market price or improve the liquidity of our Class A common stock, prevent the stock from dropping below the Nasdaq minimum bid price requirement, or prevent future non-compliance with Nasdaq's listing requirements. Additionally, if our securities are not listed on, or become delisted from, Nasdaq for any reason, and are quoted on an inter-dealer automated quotation system for equity securities that is not a national securities exchange, the liquidity and price of our securities may be more limited than if we were quoted or listed on Nasdaq or another national securities exchange. Stockholders may then be unable to sell their securities unless a market can be established or sustained.

General Risks

Unanticipated changes in effective tax rates or adverse outcomes resulting from examination of our income or other tax returns could adversely affect our results of operations and financial condition.

We will be subject to income taxes in the United States and other jurisdictions, and our tax liabilities will be subject to the allocation of expenses in differing jurisdictions. Our future effective tax rates could be subject to volatility or adversely affected by a number of factors, including:

- changes in the valuation of our deferred tax assets and liabilities;
- expected timing and amount of the release of any tax valuation allowances;
- tax effects of stock-based compensation;
- costs related to intercompany restructurings;
- changes in tax laws, regulations or interpretations thereof;
- changes in accounting and tax standards or practices;
- changes in the composition of operating income by the taxing jurisdiction; or
- lower-than-anticipated future earnings in jurisdictions where we have lower statutory tax rates and higher-than-anticipated future earnings in jurisdictions where we have higher statutory tax rates.

In addition, we may be subject to audits of our income, sales, and other transaction taxes by taxing authorities. Outcomes from these audits could have an adverse effect on our financial condition and results of operations.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Tax Act”) was signed into law making significant changes to the U.S. Tax Code. In particular, sweeping changes were made to the U.S. taxation of foreign operations. Changes include, but are not limited to, a reduction to the corporate income tax rate, limiting interest deductions, adopting elements of a territorial tax system, assessing a repatriation tax or “toll-charge” on undistributed earnings and profits of U.S.-owned foreign corporations, and introducing certain anti-base erosion provisions, including a new minimum tax on global intangible low-taxed income (“GILTI”) and base erosion and anti-abuse tax (“BEAT”). The new legislation did not have a material impact on our provision for income taxes for 2020 and 2019, because we generated net tax losses and offset our deferred tax assets on our balance sheet with a full valuation allowance due to our current loss position and forecasted losses for the near future.

In addition to the impact of the Tax Act on our federal taxes, the Tax Act has impacted our taxation in other jurisdictions, including state income taxes. Additionally, other foreign governing bodies may enact changes to their tax laws in reaction to the Tax Act that could result in changes to our global tax position and materially adversely affect our business, results of operations and financial condition. Additionally, the U.S. Internal Revenue Service, (the “IRS”) and several foreign tax authorities have increasingly focused attention on intercompany transfer pricing with respect to sales of products and services and the use of intangibles. Tax authorities could disagree with our future intercompany charges, cross-jurisdictional transfer pricing, or other matters and assess additional taxes. If we do not prevail in any such disagreements, our profitability may be affected.

We are subject to U.S. and foreign anti-corruption and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act and possibly other anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other collaborators from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors, and other collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

The current conflict between Ukraine and Russia and Israel-Hamas war have exacerbated market instability and disrupted the global economy and may adversely affect our business, results of operations, and financial condition.

The current conflict between Ukraine and Russia and Israel-Hamas war have caused uncertainty about economic and political stability, increasing volatility in the credit and financial markets and disrupting the global economy. The United States,

the European Union, and several other countries are imposing far-reaching sanctions and export control restrictions on Russian entities and individuals. These sanctions and export controls may also contribute to higher oil and gas prices and inflation, which could reduce demand in the global automotive industry and therefore reduce demand for our products. There is also a risk that Russia launches sanctions and other retaliatory actions. Additional consequences of the conflict may include diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, and various shortages and supply chain disruptions. While we do not currently directly rely on goods or services sourced in Russia, Ukraine, or Israel, and thus have not experienced any direct disruptions, we may experience indirect disruptions in our supply chain.

The recent Israel-Hamas war and escalating tensions in the region could result in, among other things, additional supply chain disruptions, rising prices for oil and other commodities, volatility in capital markets and foreign exchange rates, any of which may adversely affect our business. In addition, the conflicts, along with any global political fallout and implications including sanctions, shipping disruptions, collateral war damage, and a potential expansion of the conflict, could disturb the global economy.

Any of the foregoing factors, including developments or effects that we cannot yet predict, may adversely affect our business, results of operations, and financial condition.

Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, global pandemics, and interruptions by man-made problems, such as terrorism. Material disruptions of our business or information systems resulting from these events could adversely affect our operating results.

A significant natural disaster, such as an earthquake, fire, flood, hurricane, or significant power outage or other similar events, such as infectious disease outbreaks or pandemic events, could have an adverse effect on our business and operating results. One of our offices is located in the San Francisco Bay Area, a region known for seismic activity. In addition, natural disasters, acts of terrorism or war could cause disruptions in our manufacturing operations, our or our customers', our suppliers', or channel partners' businesses, or the economy as a whole. We also rely on information technology systems to communicate among our workforce and with third parties. Any disruption to our communications, whether caused by a natural disaster or by man-made problems, such as power disruptions, could adversely affect our business. We do not have a formal disaster recovery plan or policy in place and do not currently require that our suppliers' partners have such plans or policies in place. To the extent that any such disruptions result in delays or production or cancellations of orders, or impede our suppliers' ability to timely deliver products and components, or delays in the deployment of our products, our business, operating results and financial condition would be adversely affected.

ITEM 1B. UNRESOLVED STAFF COMMENTS.

None.

ITEM 1C. CYBERSECURITY.

Cybersecurity Risk Management and Strategy

We recognize the importance of assessing, identifying, and managing material risks associated with cybersecurity threats, as such term is defined in Item 106(a) of Regulation S-K. These risks include, among other things, operational risks; intellectual property theft; fraud; extortion; harm to employees or customers; violation of privacy or security laws and other litigation and legal risk; and reputational risks. These risks affect us, as well as our suppliers, customers, and ultimately their consumers.

We also maintain an incident response plan to coordinate the activities we take to protect against, detect, respond to, and remediate cybersecurity incidents, as such term is defined in Item 106(a) of Regulation S-K, as well as to comply with potentially applicable legal obligations and mitigate brand and reputational damage.

We have implemented several cybersecurity processes, technologies, and controls to aid in our efforts to identify, assess, and manage material risks, as well as to test and improve our incident response plan. Our approach includes, among other things:

- adoption of frameworks established by the National Institute of Standards and Technology (“NIST”) and International Organization for Standardization (“ISO”) for a flexible, tailored, and risk-based approach to cybersecurity, helping to ensure a continuous process of identifying, protecting, detecting, responding, and recovering from cyber incidents;
- alignment with ISO 21434 (automotive security) and ISO 27001 (information security management) standards, addressing cybersecurity aspects of automotive products and the broader information security management system to establish, implement, maintain, and continually improve confidentiality, integrity, and availability, as well as meeting the cybersecurity standards and product requirements established by our OEM customers;

- conducting regular network and endpoint monitoring, vulnerability assessments, and penetration testing to improve our information systems;
- providing cybersecurity training programs for employees, management, and directors, including conducting periodic phishing tests to promote awareness for all employees and all contractors with access to corporate email systems;
- leveraging industry best practices for incident handling to help identify, protect, detect, respond, and recover when there is an actual or potential cybersecurity incident, and participating in an industry information sharing and analysis center;
- employing threat intelligence monitoring processes to model, research, and respond to cyber threats in a proactive manner;
- closely monitoring emerging data protection laws and implementing changes to our processes accordingly;
- undertaking a periodic review of public-facing policies and statements related to cybersecurity;
- carrying information security risk insurance that may provide some protection against the potential losses arising from a cybersecurity incident; and
- tracking key performance indicators pertaining to cybersecurity incidents, response and recovery, vulnerabilities, and risks.

These approaches vary in maturity across the business and we work to continually improve them.

Our process for identifying and assessing material risks from cybersecurity threats operates alongside our broader overall enterprise risk management assessment process, covering all company risks. As part of this process, appropriate disclosure personnel will collaborate with subject matter specialists, as necessary, to gather insights for identifying and assessing material cybersecurity threat risks, their severity, and potential mitigations.

We conduct regular internal reviews of our cybersecurity program which are overseen by our executive management, and material issues are presented to the Board of Directors. Our cybersecurity department also participates as part of our regular quarterly Disclosure Committee to review risks requiring disclosures in financial reporting.

Our processes also address oversight and identification of cybersecurity threat risks from our use of third-party service providers, including those in our supply chain. This involves, among other things, conducting pre-engagement risk-based diligence and ongoing monitoring as needed. We also engage third-party service providers from time to time to assist in risk assessment and implementation of monitoring tools, and we review our cybersecurity controls with auditors.

Our business strategy, results of operations, and financial condition have not been materially affected by cybersecurity risks, threats, or incidents in the past, and the expenses we have incurred from cybersecurity incidents were immaterial. This includes penalties and settlements, of which there were none. We continue to invest in the cybersecurity and resiliency of systems and products and continue to enhance our internal controls and processes, which are designed to help protect our systems, products, and the information they contain. Nevertheless, we cannot guarantee that we will not be materially affected in the future by such risks or experience future material incidents.

We more fully describe whether and how risks from identified cybersecurity threats are reasonably likely to materially affect us, including our business strategy, results of operations, or financial condition, under Item 1A. of this Form 10-K. See the risk factors captioned “*We may experience difficulties in managing our growth and expanding our operations,*” “*We are subject to cybersecurity risks to our and our suppliers’ operational systems, security systems, infrastructure, integrated software in our LiDAR solutions and customer data processed by us or third-party vendors or suppliers, and any material failure, weakness, interruption, cyber event, incident, or breach of security could prevent us from effectively operating our business*” and “*Failures, or perceived failures, to comply with privacy, data protection, and information security requirements in the variety of jurisdictions in which we operate may adversely impact our business, and such legal requirements are evolving, uncertain, and may require improvements in, or changes to, our policies and operations.*”

Cybersecurity Governance

Cybersecurity is an important part of our risk management processes and an area of increasing focus for our Board and management.

The Audit Committee of our Board (“Audit Committee”) is responsible for the oversight of cybersecurity, including assessment, prevention, detection, and remediation of cyber risks, threats, and incidents. Multiple times per year, the Audit Committee receives an overview from management of our cybersecurity threat risk management and strategy processes, covering topics such as data security posture, results from third-party assessments, progress towards predetermined risk-mitigation-related goals, our incident response plan, and cybersecurity threat risks or incidents and developments, as well as the

steps management has taken to respond to such risks. In such sessions, the Audit Committee generally receives materials, including a cybersecurity scorecard and other materials, indicating current and emerging cybersecurity threat risks, and describing the Company's ability to mitigate those risks, and discusses such matters with our Vice President of IT, who is responsible for cybersecurity. Members of the Audit Committee also regularly engage in ad hoc conversations with management on cybersecurity-related matters and news events and discuss any updates to our cybersecurity risk management and strategy programs. When incidents occur, depending on the nature and severity, the Audit Committee Chair is notified immediately, and incidents are further reviewed periodically with the Audit Committee. Material cybersecurity matters are also periodically reviewed with the full Board of Directors.

ITEM 2. PROPERTIES.

We currently lease approximately 733,527 square feet of office space worldwide, of which approximately 349,713 square feet are subleased. Information concerning our principal leased properties as of December 31, 2024 is set forth below:

Location	Principal Use	Square Footage	Lease Expiration Date
Orlando, Florida	Corporate headquarters, manufacturing, engineering, research and development and administrative functions	122,961	8/30/2027
Orlando, Florida	Testing	207,487	3/31/2028
Mexico	Manufacturing	220,873	8/31/2032
Sunnyvale, California	Product design, engineering and administrative functions	45,383	11/30/2028
Santa Barbara, California	Semiconductor research and development	20,337	11/30/2026
Colorado Springs, Colorado	Semiconductor research and development	12,900	3/31/2028
Cranbury, New Jersey	Semiconductor research and development	16,464	3/14/2028
Bedford, Massachusetts	Manufacturing, engineering and administrative functions	19,332	8/31/2028
Wilmington, Massachusetts	Semiconductor fabrication	7,573	1/30/2030
Bloomington, Minnesota	Product design and engineering	25,953	4/30/2029
Germany	Research and development	17,405	3/15/2029
India	Research and development and administration functions	8,000	9/14/2029
China	Research and development	8,859	2/28/2028

ITEM 3. LEGAL PROCEEDINGS.

Information with respect to this item may be found under the heading “Legal Matters” in Note 15 of the Notes to Consolidated Financial Statements in this Form 10-K, which information is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES.

Not applicable.

PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES.

Market Information

Our Class A common stock trades on the Nasdaq Global Select Market, or Nasdaq, under the symbol “LAZR.” There is no public trading market for our Class B common stock.

On November 20, 2024, following approval by the Company’s stockholders at a special meeting of stockholders (the “Special Meeting”) held on October 30, 2024, and approval by our Board of Directors of a certificate of amendment to the Company’s Second Amended and Restated Certificate of Incorporation, we effected a reverse stock split (the “Reverse Stock Split”) of all the outstanding Class A common stock and Class B common stock and any common stock held by the Company as treasury shares, at a ratio of 1-for-15 (the “Reverse Stock Split Ratio”). All share data and per share data amounts included in this Form 10-K have been retrospectively adjusted to reflect the effect of the Reverse Stock Split.

Holders

As of March 14, 2025, there were 309 holders of record of our Class A common stock and one holder of record of our Class B common stock. The number of record holders is based upon the actual number of holders registered on our books at such date and does not include holders of shares in street name or persons, partnerships, associations, corporations, or other entities identified in security position listings maintained by depository trust companies.

Dividend Policy

We have never declared or paid any cash dividends on our common stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our Board of Directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, including under any future loan facilities, general business conditions, and other factors that our board of directors may deem relevant.

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

ITEM 6. RESERVED.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS.

The following discussion and analysis provides information that Luminar's management believes is relevant to an assessment and understanding of Luminar's consolidated results of operations and financial condition. The discussion should be read together with "Selected Historical Consolidated Financial and Operating Data of Luminar" and the historical audited annual consolidated financial statements as of and for the years ended December 31, 2024 and 2023, and the related notes thereto, included elsewhere in this Form 10-K. This discussion may contain forward-looking statements based upon Luminar's current expectations, estimates, and projections that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements due to, among other considerations, the matters discussed under "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements."

Discussion regarding our financial condition and results of operations for the year ended December 31, 2023 as compared to the year ended December 31, 2022 is included in Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 28, 2024.

Overview

We are a technology company specializing in advanced Light Detection and Ranging (LiDAR) hardware and software solutions to enable the world's safest and smartest vehicles. Over the past decade, we have been developing proprietary LiDAR hardware, core semiconductor components, and software in-house to meet the demanding performance, safety, reliability, and cost requirements to enable next-generation safety and autonomous capabilities for passenger and commercial vehicles, as well as other adjacent markets.

Beyond sensor hardware, our product portfolio has expanded to include semiconductor components of our LiDAR that have utility in adjacent markets, in-development software capabilities such as perception and high-definition "3D" mapping, certain data sets and other information, all of which we anticipate will monetize the ecosystem of improved safety and autonomy created by our LiDAR. Substantially all of our software products have not achieved technological feasibility or have been commercialized.

Acquisition of EM4, LLC ("EM4")

On March 18, 2024, we completed the acquisition of EM4, a designer, manufacturer and seller of packaged photonic components and sub-systems for aerospace and industrial markets. The EM4 acquisition is expected to accelerate our strategy to package lasers, detectors and ASICs. Operations of EM4 have been included in our ATS segment since the acquisition date.

Industrialization Update

We continue to execute on our industrialization plan in conjunction with our automaker partners.

In 2021, we executed contract manufacturing services agreements to enable series production of our Iris LiDAR sensors with Celestica and Fabrinet, whereby Fabrinet is responsible for assembly and testing of our transceiver sub-component based on our design and components and Celestica is responsible for final assembly and testing of our LiDAR sensor including the transceiver from Fabrinet. In April 2024, we announced our start of production ("SOP") for Volvo, our lead customer at the dedicated manufacturing facility in Mexico, owned and operated by Celestica, and we began shipping production LiDAR sensors.

In 2023, we executed a contract manufacturing services agreement with TPK to build and operate an additional high-volume facility in Asia, and we commenced the process of series production tooling in partnership with TPK at the facility. In 2024, we executed an agreement to establish an engineering center in China, staffed by TPK, to assist with our industrialization efforts, including manufacturing process design, development and validation, component process verification and validation, supplier development support, system validation, cost analysis, and benchmarking. This expanded partnership with TPK is accretive to our contract manufacturing relationship, as well as our contract manufacturing relationships with Celestica and Fabrinet.

We continually evaluate opportunities for optimizing our manufacturing and product design processes, including evaluating our sourcing strategies to reduce future per unit sensor manufacturing costs. In 2023, we commenced a change in sourcing of certain sub-assemblies and components from one supplier to another, which required us to abandon certain equipment located at the legacy supplier. As a result, we reduced the useful lives of the long-lived assets within the impacted asset group in line with when these assets are expected to be abandoned. The reduction in the estimated useful lives of the impacted assets resulted in us recording \$4.4 million of accelerated depreciation charges during the year ended December 31, 2024, and our expected transition to new suppliers has essentially been completed. In 2024, we commenced a change in sourcing of final assembly of components from one contract manufacturer to another. This effort included taking scaled down or production downtime at the dedicated manufacturing facility in Mexico. Our continuing optimization of our manufacturing

and product design processes may impact estimated useful lives or carrying values of additional property, plant and equipment or other assets.

Business Updates

In April 2024, we achieved our SOP for Volvo Cars and began delivering production LiDAR sensors for the Volvo EX90, the first global production vehicle to feature and standardize our technology. Our LiDAR sensors on initial vehicles are first being used for road data collection and system training, and will later be activated as part of the vehicle's active safety system.

On May 3, 2024, we announced a restructuring and cost reduction plan (the "Restructuring Plan"), which included reducing our workforce by approximately 20% and sub-leasing of certain facilities. We estimated the impact of the Restructuring Plan and other actions such as contractor spend reduction, when completed, would reduce operating costs by approximately \$50.0 million to \$65.0 million on an annual basis, of which approximately \$20.0 million to \$30.0 million would be savings in cash expenditures.

On September 20, 2024, we announced additional actions under the Restructuring Plan that represented a cumulative workforce reduction of approximately 30% of our full-time employees since the beginning of 2024. These additional actions commenced immediately following the announcement, and we expect them to be substantially complete by the end of 2025.

Through December 31, 2024, we incurred \$9.8 million in total charges associated with employee severance and related costs, including both cash and stock from the actions we took in May 2024 and September 2024. We estimate that the additional workforce adjustments we announced in September 2024, along with other cost-saving measures expected to take place over the next year, will generate approximately \$80.0 million in additional annual cash savings on a run-rate basis.

On August 6, 2024, we entered into private, separately negotiated agreements for (i) the private offering and sale of \$100.0 million in aggregate principal amount first-lien, senior secured floating rate notes (due in 2028) (the "Senior Notes") and (ii) the exchange of approximately \$421.9 million in aggregate principal amount of 1.25% 2026 Convertible Senior Notes (due in 2026) for approximately \$274.2 million in aggregate principal amount of 2030 Convertible Notes (due in 2030) (the "2030 Convertible Notes"), consisting of two series of second-lien, senior secured notes, both of which have identical terms other than the principal amount, interest rate, and applicable conversion price. We did not receive any cash proceeds from the exchange transaction. The transactions closed on August 8, 2024. See Note 8 of the Notes to the Consolidated Financial Statements included in this Form 10-K for more detail.

Through the year ended December 31, 2024, we received notices from the 2030 Convertible Notes' holders to convert the principal amount of \$27.0 million and \$8.5 million of Series 1 Notes and Series 2 Notes, respectively, upon which we issued 1,601,304 shares and 379,104 shares of Class A common stock on a reverse split-adjusted basis to settle such conversion of the Series 1 Notes and Series 2 Notes, respectively.

Given the customary business practices in the automotive industry, the rapidly changing nature of the markets in which we compete, and the fact that LiDAR is a new technology in the industry, there remains potential risk that our major commercial wins or other milestone achievements may not ultimately generate any significant revenue. See the discussion under the heading "*The period of time from a major commercial win to implementation is long, and we are subject to risks of cancellation or postponement of the contract or unsuccessful implementation*" in "Risk Factors" in Item IA of Part I in this Form 10-K.

Reverse Stock Split

In November 2024, following approval by the Company's stockholders at a special meeting of stockholders (the "Special Meeting") held in October 2024 and approval by the Board of Directors of a certificate of amendment to the Company's Second Amended and Restated Certificate of Incorporation, we effected a reverse stock split (the "Reverse Stock Split") of all the outstanding Class A common stock and Class B common stock and any common stock held by the Company as treasury shares, at a ratio of 1-for-15 (the "Reverse Stock Split Ratio"). All share data and per share data amounts included in this Form 10-K have been retrospectively adjusted to reflect the effect of the Reverse Stock Split.

Metrics Update

In the past, before we had commenced series production, we disclosed "Order Book" as an alternative metric to measure our commercial progress and the opportunity for our business. Order Book was defined as the forward-looking cumulative billings estimate of Luminar's hardware and software products over the lifetime of given vehicle production programs for which our technology was expected to be integrated into or provided for, based primarily on projected or actual contractual pricing terms and our good faith estimates of volume.

Now that we have achieved series production, our assessment is that Order Book is no longer as valuable a metric as sensors shipped. We have thus removed disclosure of an Order Book estimate in favor of disclosing sensors shipped, and

associated guidance, as an alternative metric by which to measure our commercial, operational, and financial progress. This is a consistent practice with other LiDAR companies that have reached the series production stage.

Basis of Presentation

Our consolidated financial statements include the accounts of our wholly-owned subsidiaries. We have eliminated intercompany accounts and transactions.

Components of Results of Operations

Revenue

Our business and revenue producing activities are organized in two operating segments: (i) Autonomy Solutions and (ii) Advanced Technologies and Services (“ATS”).

The Autonomy Solutions segment is engaged in the design, manufacturing, and sale of LiDAR sensors catering mainly to OEMs in the automotive, commercial vehicle, robo-taxi and adjacent industries. The Autonomy Solutions segment revenue also includes fees earned from non-recurring engineering services provided to customers in connection with customization of our hardware and software products, as well as revenue generated from licensing of certain data and information.

The ATS segment provides advanced semiconductors and related components, as well as design, testing and consulting services to the Autonomy Solutions segment and to various third-party customers, including government agencies and defense contractors, in markets generally unrelated to autonomous vehicles.

One customer, customer A of the Autonomy Solutions segment, accounted for 39% of our revenue for the year ended December 31, 2024. Two customers, customer A and customer B of the Autonomy Solutions segment, accounted for 35% and 11%, respectively, of our revenue for the year ended December 31, 2023. Two customers, customer A and customer B of the Autonomy Solutions segment, accounted for 17% and 21%, respectively, of our revenue for the year ended December 31, 2022.

Consideration Payable to Customers

We enter into revenue and purchase contracts with the same customers from time to time. When payments to customers are in exchange for distinct goods and services, we evaluate the underlying economics and fair value of the distinct goods and services. If we determine any portion of the consideration payable to the customer exceeds the fair value of the distinct goods and services, the excess is accounted for as a reduction of the transaction price of the revenue contract.

Cost of Sales and Gross Profit (Loss)

Cost of sales includes the fixed and variable manufacturing cost of our LiDAR sensors, which primarily consists of material purchases from third-party contract manufacturers and suppliers that are directly associated with our manufacturing process, as well as personnel-related costs, including stock-based compensation expense for personnel engaged in manufacturing, and engineering. Cost of sales also includes the cost of providing services to customers, depreciation and amortization for manufacturing fixed assets or equipment, cost of components, product testing and launch-related costs, an allocated portion of overhead, facility and information technology (“IT”) costs, write-downs for excess and obsolete inventory, as well as shipping costs.

The ATS segment provides certain services and components to the Autonomy Solutions segment, which are recorded as cost of goods sold or research and development costs depending on the nature and use of such services and components by the Autonomy Solutions segment. These inter-segment transactions are eliminated in the consolidated results.

Gross profit (loss) equals revenue less cost of sales. As we transition from prototype production to series production, average selling prices for our products will be lower. We expect these lower average selling prices to temporarily increase our gross loss until we start to realize the benefits of cost reduction and efficiency measures and production scaling.

Operating Expenses

Research and Development (R&D)

R&D costs are expensed as incurred. Design and development costs for products to be sold under long-term supply arrangements are expensed as incurred. Design and development costs for molds, dies, and other tools involved in developing new technologies are expensed as incurred.

Our R&D efforts are focused on enhancing and developing additional functionality for our existing products and on new product development, including new releases and upgrades to our LiDAR hardware and integrated software solutions. R&D expenses consist primarily of:

- Personnel-related expenses, including salaries, benefits, and stock-based compensation expense, for personnel in our research and engineering functions;

- Expenses related to materials, software licenses, supplies, data labeling and other third-party services;
- Prototype expenses; and
- An allocated portion of facility and IT costs and depreciation.

The ATS segment provides certain services and components to the Autonomy Solutions segment, which are recorded as cost of goods sold or R&D costs depending on the nature and use of such services and components by the Autonomy Solutions segment. These inter-segment transactions are eliminated in our consolidated results.

We expect our R&D costs to remain elevated for the foreseeable future as we continue to invest in research and development activities to achieve our product roadmap, and we expect to continue to incur operating losses for at least the foreseeable future due to continued R&D investments.

Sales and Marketing Expenses

Sales and marketing expenses consist of personnel and personnel-related expenses, including stock-based compensation of our business development team, as well as advertising and marketing expenses. These include the cost of marketing programs, trade shows, promotional materials, demonstration equipment, an allocated portion of facility and IT costs, and depreciation.

General and Administrative Expenses

General and administrative expenses consist of personnel and personnel-related expenses, including stock-based compensation of our executive, finance, human resources, information systems and legal departments, as well as legal and accounting fees for professional and contract services.

Other income (expense), net

Other income (expense), net includes change in fair value of warrant liabilities, interest expense, interest income, gain of extinguishment of debt, gain on acquisition of EM4, changes in fair value of derivative liability, and losses and impairments related to investments and certain other assets and other income (expense).

Change in Fair Value of Warrants

The warrant liabilities are classified as marked-to-market liabilities, and the corresponding increase or decrease in value is reflected in change in fair value of warrants.

Change in Fair Value of Derivative Liabilities

The derivatives are classified as marked-to-market liabilities, and the corresponding increase or decrease in value is reflected in change in fair value of bifurcated derivatives.

Interest Income and Interest Expense

Interest income consists primarily of income earned on our cash equivalents and marketable securities. These amounts will vary based on our cash, cash equivalents, and marketable securities balances, and also with market rates. Interest expense consists primarily of interest on our notes as well as amortization of premium (discount) on marketable securities.

Losses and Impairments to Investments and Certain Other Assets, and Other Income (Expense)

Other income (expense), net includes realized gains and losses related to the marketable securities, as well as impact of gains and losses related to foreign exchange transactions, and impairment of investments and certain other assets.

Results of Operations

Comparison of the Years Ended December 31, 2024 and 2023

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in this report. The following table sets forth our consolidated results of operations data for the periods presented (in thousands):

	Year Ended December 31,		Change	Change
	2024	2023	\$	%
Revenue	\$ 75,395	\$ 69,779	\$ 5,616	8 %
Cost of sales	101,085	142,469	(41,384)	(29)%
Gross loss	(25,690)	(72,690)	47,000	(65)%
Operating Expenses:				
Research and development	231,669	262,217	(30,548)	(12)%
Sales and marketing	45,488	53,097	(7,609)	(14)%
General and administrative	115,771	159,815	(44,044)	(28)%
Impairment of goodwill and intangible assets	6,647	15,489	(8,842)	(57)%
Restructuring costs	9,772	—	9,772	nm
Total operating expenses	409,347	490,618	(81,271)	(17)%
Loss from operations	(435,037)	(563,308)	128,271	(23)%
Other income (expense), net:				
Change in fair value of warrant liabilities	1,069	1,936	(867)	(45)%
Interest expense	(27,032)	(11,048)	(15,984)	145 %
Interest income	10,418	13,109	(2,691)	(21)%
Gain on extinguishment of debt	148,660	—	148,660	nm
Gain from acquisition of EM4	1,474	—	1,474	nm
Changes in fair value of derivative liability	31,729	—	31,729	nm
Losses related to investments and certain other assets, and other income (expense)	(5,164)	(10,262)	5,098	(50)%
Total other income (expense), net	161,154	(6,265)	167,419	(2672)%
Loss before provision for income taxes	(273,883)	(569,573)	295,690	(52)%
Provision for income taxes	(743)	1,696	(2,439)	(144)%
Net loss	\$ (273,140)	\$ (571,269)	\$ 298,129	(52)%

Revenue

The following table sets forth a breakdown of our revenue by our segments for the periods presented (in thousands):

	Year Ended December 31,		Change	Change
	2024	2023	\$	%
Revenue from sales to external customers:				
Autonomy Solutions	\$ 53,480	\$ 48,835	\$ 4,645	10 %
ATS	21,915	20,944	971	5 %
Total	\$ 75,395	\$ 69,779	\$ 5,616	8 %

The increase in revenue of our Autonomy Solutions in 2024 compared to 2023 was primarily due to an increase in sensor shipments to Volvo, driven by SOP of the Volvo EX90, as well as licensing of certain information, partially offset by lower service revenue on certain NRE contracts.

The increase in revenue of our ATS segment in 2024 compared to 2023, was primarily due to an increase in revenue from the acquisition of EM4 in March 2024, partially offset by lower non-recurring engineering service revenue and product sales.

Cost of Sales

The \$41.4 million decrease in the cost of sales in 2024 compared 2023, was primarily due to cost reduction initiatives in 2024, launch related costs in 2023, and lower number of service projects offset by ramp up in production and units sold. In the

fourth quarter of 2024, an Iris+ development contract for non-recurring engineering services was terminated. As a result, we recorded a \$11.3 million reversal of the provision for NRE contract losses that we had accrued throughout the contract term, which had a positive impact on the cost of sales in the quarter.

In 2023, we commenced a change in sourcing strategy of certain sub-assemblies and components from one supplier to another, which resulted in discontinued use of certain plant, property and equipment assets as they were no longer needed for their original intended use and required us to abandon certain equipment at the legacy supplier. As a result, we revised the estimated useful lives of the long-lived assets within the impacted asset group, which resulted in us recording depreciation for these assets over an accelerated period. for certain manufacturing activities is expected to result in discontinued use of certain plant, property and equipment assets as they will no longer be needed for their original intended use. As a result of executing our plan, we revised the estimated useful lives of certain long-lived assets within the impacted asset group. This resulted in recording depreciation for these assets over an accelerated period. In 2024 and 2023, we recorded \$4.4 million and \$9.2 million of accelerated depreciation charges associated with this manufacturing and sourcing change, respectively.

In 2024, we commenced a change in sourcing and final assembly of components from one contract manufacturer to another. This effort included taking production downtime at the dedicated manufacturing facility in Mexico. Our continuing optimization of our manufacturing and product design processes may impact estimated useful lives or carrying values of additional property, plant and equipment or other assets.

Operating Expenses

Research and Development

The \$30.5 million decrease in research and development expenses in 2024 compared to 2023 was primarily due to a \$24.6 million decrease in personnel-related costs driven mainly by decreased headcount and a decrease in stock-based compensation expense, a \$5.5 million decrease in purchased materials, \$1.8 million decrease in travel related costs and a \$0.7 million decrease in depreciation, amortization and other expenses, partially offset by a \$1.7 million increase in contractor fees and external spend in relation to continued development and testing of our sensor and software products, development activities related to advanced manufacturing, as well as data labelling services.

Sales and Marketing

The \$7.6 million decrease in sales and marketing expenses for 2024 compared to 2023 was primarily due to a \$12.6 million decrease in personnel related costs including stock-based compensation costs due to decrease in headcount, a \$1.7 million reduction in travel related costs and a \$0.5 million reduction in supplies expenses, partially offset by a \$5.7 million increase in sponsorship fees and a \$1.5 million increased in professional services.

General and Administrative

The \$44.0 million decrease in general and administrative expenses for 2024 compared to 2023 was primarily due to a \$38.7 million net decrease in personnel-related costs including stock-based compensation expense as a result of headcount reduction and vesting of certain awards previously granted in connection with merger and acquisition activity, a \$3.0 million decrease in travel related costs, a \$1.6 million decrease in expenses related to subscriptions and material expenses due to limited hiring and a \$0.2 million net decrease in legal, outside consultants and contractor expenses offset by an increase of \$1.4 million in expenses related to commissions for subleases.

Impairment of goodwill and intangible assets

In 2023, we recognized impairment charges of \$12.5 million of goodwill and \$3.0 million of IPR&D intangible assets related to Freedom Photonics. These impairment charges were due to events that occurred during the fourth quarter of 2023, including a decision to delay development activities on certain new products resulting from an increase in focus on supporting the product roadmap of the Autonomy Solutions segment, and a lowering of the growth outlook for the business due to less than anticipated traction in sales of new products.

During the third quarter of 2024, we recognized additional impairment charges of \$3.4 million and \$3.3 million related to goodwill and IPR&D intangible assets related to Freedom Photonics, driven by a slower industry LiDAR adoption rate in the near-term as well as a reduction in the Freedom Photonics workforce assigned to perform development work for external customers.

Total life-to-date goodwill impairment charge recorded by the ATS reportable segment was \$15.9 million. No impairment charge has been recorded by the Autonomy Solutions reportable segment.

Restructuring Costs

We incurred \$9.8 million in restructuring expenses in 2024 due to actions taken pursuant to the Restructuring Plan announced in May 2024 and expanded in September 2024.

Change in Fair Value of Warrant Liabilities

The change in fair value of warrant liabilities is a non-cash benefit or charge due to the corresponding decrease or increase in the estimated fair value of warrants issued in a private placement on connection with the initial public offering of Gores Metropoulos, Inc. (“Private Warrants”).

Losses related to investments and certain other assets, and other income (expense)

Losses and impairment related to investments and certain other assets in 2024 and 2023 primarily related to marked to market fair value adjustment related to declines in fair values of marketable equity investments.

Gain on Extinguishment of Debt

In 2024, as a result of the exchange and purchase transactions, we recognized \$148.7 million gain on debt extinguishment, which represented the difference between the carrying value of the 2026 Convertible Senior Notes so exchanged and the collective fair value of the 2030 Convertible Notes and the Senior Notes, net of the cash payment received from the noteholders, along with the gain from the 2030 Convertible Notes principal amount conversion initiated by the holders. The extinguishment gain was recorded in other income (expense), net in the consolidated statements of operations.

Change in Fair Value of Derivative Liability

The change in fair value of derivative liability is a non-cash benefit or charge due to the corresponding decrease or increase in the estimated fair value of the bifurcated derivatives in the 2030 Convertible Notes.

Segment Operating Loss

Segment income or loss is defined as income or loss before taxes. Our segment loss breakdown is as follows (in thousands):

	Year Ended December 31,		Change \$	Change %
	2024	2023		
Segment operating loss				
Autonomy Solutions	\$ (412,998)	\$ (513,668)	\$ 100,670	(20%)
ATS	(22,039)	(49,640)	27,601	(56%)

Autonomy solutions segment operating loss decreased \$100.7 million from 2023 to 2024. The decrease in operating loss was primarily due to decreases in personnel-related costs driven by decreased headcount and a decrease in stock-based compensation expense, and travel related expenses, a decrease in purchased materials, and a reduction in supplies expenses, partially offset by restructuring costs in 2024.

ATS segment operating loss decreased \$27.6 million from 2023 to 2024. The decrease in operating loss was primarily due to a decrease in personnel-related costs including stock-based compensation expense as a result of headcount reduction and vesting of certain awards previously granted in connection with merger and acquisition activity, and a decrease in purchased materials, partially offset by restructuring costs in 2024 and a \$6.6 million charge related to impairment of goodwill and intangible assets in 2024.

Liquidity and Capital Resources

Sources of Liquidity and Capital Requirements

Our capital requirements will depend on many factors, including:

- market adoption of new and enhanced products and features;
- production capacity and volume;
- the timing and extent of spending to support R&D efforts;
- investments in manufacturing equipment and facilities; and
- investments in information technology systems.

Until we can generate sufficient revenue and profits from the sale of products and services to cover our operating expenses, working capital, and capital expenditures, we expect our cash, cash equivalents and marketable securities, and proceeds from debt and/or equity financings to fund our cash needs.

Issuances of our equity securities have resulted, and any future issuances of our equity securities will result, in dilution to stockholders. Any equity securities issued may also provide for rights, preferences, and privileges senior to those of existing holders of our common stock and may contain terms which impose significant restrictions on our operations. Issuances of our debt securities have resulted in rights, preferences, and privileges senior to holders of our common stock. The indentures

governing our outstanding Senior Notes and Convertible Notes contain, and any future indebtedness that we may incur may contain, financial and other restrictive covenants that limit our ability to operate our business, raise capital or make payments under our other indebtedness.

In addition, we may from time to time seek to retire or repurchase material amounts of our outstanding debt securities through open-market purchases, privately negotiated transactions, or otherwise, for cash or through exchanges for debt or equity, subject to limitations in the agreements governing our outstanding debt securities. Any repurchases or exchanges would be on terms and at prices that we may determine in our discretion and would depend on prevailing market conditions, our liquidity requirements, our receipt of any necessary corporate approvals, and other factors. The credit market and financial services industry have in the past, and may in the future, experience periods of uncertainty that could impact the availability and cost of equity and debt financing.

We expect to continue to invest in our product and software development, as well as incur efforts to build customer relations and expand into additional markets. Further, we expect to invest in developing advanced manufacturing capabilities, including at our contract manufacturing partners. We expect to fund these product and business development initiatives and associated capital expenditures either through our cash, cash equivalents and marketable securities or through issuance of shares of our Class A common stock to vendors and third parties for services provided under our stock in lieu of cash program (“Stock-in-lieu of Cash Program”).

In February 2024, we entered into two non-recourse loan and securities pledge agreements (the “Loan Agreements”) with The St. James Bank & Trust Company Ltd. (the “Lender”), pursuant to which we may borrow up to an aggregate of \$50.0 million. Any loans made by the Lender under the Loan Agreements would be collateralized by shares of our Class A common stock or stock we hold of another company. The Loan Agreements require us to pay an up-front structure fee of 1.5% on any amounts borrowed, and any outstanding amounts would bear interest at 8.0% per annum. We did not borrow any amount from this credit facility and had no outstanding balance as of December 31, 2024.

In May 2024, we entered into a Sales Agreement (the “2024 Sales Agreement”) with Virtu Americas LLC (the “Agent”) under which we may offer and sell, from time to time at our sole discretion, shares of our Class A common stock with aggregate gross sales proceeds of up to \$150.0 million under our Equity Financing Program. This was an extension of the prior Equity Financing Program we established with the Agent in February 2023. In August 2024, we increased the Equity Financing Program by an additional \$50.0 million pursuant to the 2024 Sales Agreement and in March 2025, we further increased the program by an additional \$75.0 million. We intend to use the net proceeds from offerings under the Equity Financing Program for expenditures or payments in connection with merger and acquisitions, strategic investments, partnerships and similar transactions, repurchases of outstanding debt securities, and for general corporate and business purposes.

Under the 2024 Sales Agreement, we set the parameters for the sale of the shares, including the number of shares to be issued, the time period during which sales are requested to be made, limitations on the number of shares that may be sold in any one trading day, and any minimum price below which sales may not be made. Subject to the terms and conditions of the 2024 Sales Agreement, the Agent has agreed to use its commercially reasonable efforts, consistent with its normal trading and sales practices, to sell the shares by methods deemed to be an “at the market” offering as defined in Rule 415 promulgated under the Securities Act, including sales made through The Nasdaq Global Select Market.

We issued 6,735,375 and 8,335,450 shares of Class A common stock under the Equity Financing Program during the three and twelve months ended December 31, 2024 for net cash proceeds of \$47.6 million and \$89.4 million, respectively. As of December 31, 2024, \$134.0 million of Class A Common Stock was available for sale under the program.

In August 2024, we entered into private, separately negotiated agreements for (i) the private offering and sale of \$100 million in aggregate principal amount of first-lien, senior secured floating rate notes due 2028 (the “Senior Notes”) and (ii) the exchange of approximately \$421.9 million in aggregate principal amount of 1.25% Convertible Senior Notes due 2026 (the “2026 Convertible Senior Notes”) for approximately \$274.2 million in aggregate principal amount of newly issued Convertible Notes due 2030 (the “2030 Convertible Notes”), consisting of two series of second-lien, senior secured notes, both of which have identical terms other than the principal amount, interest rate, and applicable conversion price. We received \$97.0 million net of debt discount of \$3.0 million, in cash proceeds from the offering and sale of the Senior Notes, but did not receive any cash proceeds from the exchange of the 2026 Convertible Senior Notes for the 2030 Convertible Notes. As a result of this transaction, we extended a significant amount of our 2026 maturities into 2030 and raised additional capital to bolster our liquidity position. We expect to incur higher annual interest expense for the Senior Notes and 2030 Convertible Notes. For additional information regarding the notes, including the financial and other restrictive covenants and contractual obligations contained in the indentures governing the notes, see Note 8 of the Notes to the Consolidated Financial Statements included in this Form 10-K.

In 2024, \$35.5 million in aggregate principal amount of the 2030 Convertible Notes were converted by the holders. We issued 1,980,408 shares of Class A common stock to settle conversions of \$35.5 million in aggregate principal amount of 2030 Convertible Notes.

As of December 31, 2024, we had cash and cash equivalents totaling \$82.8 million and marketable securities of \$99.8 million, totaling \$182.7 million of total liquidity. To date, our principal sources of liquidity have been proceeds received from issuances of debt and equity. Market and economic conditions, such as the increase in interest rates by federal agencies, may materially impact relative cost and mix of these sources of liquidity.

To date, we have not generated positive cash flows from operating activities and have incurred significant losses from operations in the past as reflected in our accumulated deficit of \$2.1 billion as of December 31, 2024. We expect to continue to incur operating losses for at least the foreseeable future due to continued investments that we intend to make in our business and, as a result, we may require additional capital resources to grow our business. We believe that current cash, cash equivalents, and marketable securities as well as the availability under the Equity Financing Program will be sufficient to continue to execute our business strategy in the next 12 months.

Cash Flow Summary

The following table summarizes Luminar's cash flows for the periods presented:

	Year Ended December 31,	
	2024	2023
Net cash provided by (used in):		
Operating activities	\$ (276,630)	\$ (247,304)
Investing activities	42,463	236,626
Financing activities	178,265	80,197

Operating Activities

Net cash used in operating activities was \$276.6 million for the year ended December 31, 2024. Net cash used in operating activities was due to our net loss of \$273.1 million adjusted for non-cash items of \$36.5 million, primarily consisting of \$148.7 million gain on extinguishment of debt, \$139.1 million of stock-based compensation, \$31.7 million of change in fair value of derivatives, \$25.3 million of depreciation and amortization, \$20.1 million of inventory write-offs and write-downs and \$14.6 million of vendor stock in lieu of cash program, offset by cash used by operating assets and liabilities of \$40.0 million due to the timing of cash payments to vendors and receipts from customers.

Investing Activities

Net cash provided by investing activities of \$42.5 million for the year ended December 31, 2024 was comprised of \$177.9 million and \$3.4 million, of cash proceeds from maturities and sales/ redemptions of marketable securities, respectively, offset primarily by \$130.4 million related to purchases of marketable securities, \$5.1 million in capital expenditures and \$3.5 million of cash paid to acquire certain assets from EM4.

Financing Activities

Net cash provided by financing activities of \$178.3 million for the year ended December 31, 2024 was comprised of \$89.4 million cash received from sale and issuance of shares of Class A common stock under the Equity Financing Program, \$89.2 million from the issuance of Senior Notes, net of issuance costs and \$1.7 million of proceeds from ESPP purchases and exercise of stock options, offset by \$2.0 million payments of employee taxes related to stock-based awards.

Critical Accounting Policies and Estimates

We prepare our consolidated financial statements in accordance with generally accepted accounting principles in the United States ("GAAP"). The preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that can significantly impact the amounts we report as assets, liabilities, revenue, costs, and expenses, as well as the related disclosures. We base our estimates on historical experience and other assumptions that we believe are reasonable under the circumstances. Our actual results could differ significantly from these estimates under different assumptions and conditions. We believe that the accounting policies and estimates discussed below are critical to understanding our historical and future performance as these policies involve a greater degree of judgment and complexity.

Our significant accounting policies are described in Note 2 to the Consolidated Financial Statements.

Revenue

Revenue from product sales is recognized upon transfer of control of promised products. Revenue for service projects is recognized as services are performed and amounts are earned in accordance with the terms of a contract. Revenue is recognized in an amount that reflects the consideration that we expect to receive in exchange for those products and services.

Revenues related to non-recurring engineering (“NRE”) projects are recognized over time using the cost input method. In using this input method, we generally apply the cost-to-cost method of accounting, where sales and profits are recorded based on the ratio of costs incurred to estimated total costs at completion. Recognition of profit on the NRE contracts requires estimates of the total contract value, the total cost at completion, and the measurement of progress towards completion.

During the years ended December 31, 2023 and 2022, we recorded \$16.4 million and \$19.2 million, respectively, in cost of sales (services) estimated losses expected to be incurred on NRE service projects with certain customers. The estimated contract losses recorded in 2023 were primarily driven by delays in achievement of certain milestones and changes in scope of project deliverables agreed upon with a customer during the year, and in 2022 were primarily driven by changes in estimates related to costs expected to be incurred for contractual milestones of certain projects based on actual experience on similar projects and changes in technical specifications by a customer during the year. During the year ended December 31, 2024, estimated losses were immaterial. Significant judgment is required when estimating total contract costs and progress to completion on the arrangements, as well as whether a loss is expected to be incurred on the contract. In estimating total contract costs, we are also required to estimate the effort expected to be incurred to complete a NRE project. These estimates are subject to significant uncertainty as actual time and effort incurred on completing a NRE project or actual rates of either internal or contracted personnel working on such NRE projects may differ from our estimates. If circumstances arise that change the original estimates of revenues, costs, or extent of progress toward completion, revisions to the estimates are made. These revisions may result in increases or decreases in estimated revenues or costs, and such revisions are reflected in income in the period in which the circumstances that gave rise to the revision become known to us. We perform ongoing profitability analysis of our contracts accounted for under this method to determine whether the latest estimates of revenues, costs, and profits require updating. If at any time these estimates indicate that the contract will be unprofitable, the entire estimated loss for the remainder of the contract is recorded immediately.

We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations; however, determining whether products or services are considered distinct performance obligations that should be accounted for separately versus together may sometimes require significant judgment. Transaction price is allocated to each performance obligation on a relative standalone selling price (“SSP”) basis. Judgment is required to determine SSP for each distinct performance obligation. We use a range of sales prices from actual sales to customers to estimate SSP when products and services are sold separately. In instances where SSP is not directly observable, we determine SSP using information that may include other observable inputs available to it.

Changes in judgments with respect to these assumptions and estimates could impact the timing or amount of revenue recognition.

Convertible and Senior Notes and Derivative Liability

We evaluate the notes to determine if embedded features of those contracts qualify as derivatives to be separately accounted for under the relevant sections of Accounting Standards Codification ("ASC") 815-40, *Derivatives and Hedging: Contracts in Entity's Own Equity*. This accounting treatment requires that the carrying amount of any derivatives be recorded at fair value in the consolidated balance sheet at issuance and marked-to-market at each balance sheet date as components of convertible and senior notes. The change in the fair value during the period is recorded in the consolidated statement of operations as either other income or expense as changes in fair value of derivative liability. Additionally, when we change the terms of existing notes, we evaluate the transactions under ASC 470-50, *Debt Modification and Extinguishment* to determine whether the change should be treated as a modification or as a debt extinguishment. For extinguishments, we compare the reacquisition price of the extinguished notes to the carrying amount of the respective extinguished notes, and a gain or loss is recorded in other income (expense), net on our consolidated statements of operations. Upon conversion, exercise or repayment, the respective derivative liability is marked to fair value at the conversion, repayment, or exercise date, and then the related fair value amount is reclassified to other income or expense as part of gain or loss on debt extinguishment in the consolidated statement of operations.

We use a binomial lattice bond model to estimate the fair value of the senior notes, convertible notes, and bifurcated derivatives. Our use of the binomial model requires the input of highly subjective assumptions, including expected volatility of our common stock, risk-free interest rates, discount rates, and estimated effective conversion price ratios based on forecasted financial metrics (adjusted for additional interest payment upon conversion per the agreement). The assumptions used in the binomial model represent managements' best estimates. These estimates involve inherent uncertainties and the application of management's judgment.

Smaller Reporting Company Status

Based on our public float as of June 28, 2024, as well as our revenue, we have transitioned to “smaller reporting company” status, and we have taken advantage of certain reduced disclosure requirements available to smaller reporting companies.

Recent Accounting Pronouncements

See Note 2 in Item 8. of this Form 10-K for information related to recent accounting pronouncements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

We are a smaller reporting company as defined by Rule 12b-2 of the Securities Exchange Act of 1934 and are not required to provide the information under this item.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.

**LUMINAR TECHNOLOGIES, INC.
INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS**

<u>Report of Independent Registered Public Accounting Firm</u> (Deloitte & Touche LLP, San Jose, CA, PCAOB ID No. 34)	<u>58</u>
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Luminar Technologies, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Luminar Technologies, Inc. and subsidiaries (the “Company”) as of December 31, 2024 and 2023, the related consolidated statements of operations and comprehensive loss, stockholders’ equity (deficit), and cash flows, for each of the three years in the period ended December 31, 2024, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. 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 audits 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 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 audits, 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 audits included performing procedures to assess the risks of material misstatement of the 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 financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accounting for Note Purchase and Initial Exchange Transactions — Refer to Notes 2, 8, and 9 to the financial statements

Critical Audit Matter Description

During August 2024, the Company entered into private, separately negotiated agreements for (i) the private offering and sale (the “Note Purchase Transaction”) of \$100.0 million in aggregate principal amount of newly issued, first-lien, senior secured floating rate notes of the Company (the “Senior Notes”); and (ii) the exchange (the “Initial Exchange Transaction” and, together with the Note Purchase Transaction, the “Note Purchase and Initial Exchange Transactions”) of approximately \$421.9 million in aggregate principal amount of 1.25% Convertible Senior Notes due 2026 for approximately \$274.2 million in aggregate principal amount of newly issued Convertible Senior Secured Notes due 2030 (the “2030 Convertible Notes”).

The Company accounted for the Note Purchase and Initial Exchange Transactions as an extinguishment of the \$421.9 million amount of 1.25% Convertible Senior Notes due 2026 and recorded an extinguishment gain of \$142.2 million. The Company accounted for the conversion option and other features of the 2030 Convertible Notes as bifurcated derivatives, which are accounted for separately as derivative instruments. The bifurcated derivative instruments are liability classified and recorded at fair value of \$49.2 million in the consolidated balance sheet, with the corresponding amount recorded as a discount to the 2030 Convertible Notes upon issuance.

Given the significant judgments required by management in evaluating the accounting for the transactions, we identified the accounting for the Note Purchase and Initial Exchange Transactions as a critical audit matter. Auditing the Company’s

accounting for the transactions required a high degree of auditor judgment and an increased extent of effort due to the nature and extent of specialized skill and knowledge required.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's accounting for the Note Purchase and Initial Exchange transactions included the following, among others:

- With the assistance of professionals within our firm having expertise in accounting for debt transactions, we performed the following:
 - We read the Note Purchase and Initial Exchange Transactions contracts to understand the terms and conditions.
 - We evaluated the Company's accounting analysis for the Note Purchase and Initial Exchange Transactions under accounting principles generally accepted in the United States of America, including whether the transactions represented an extinguishment, the identification of embedded derivatives, and the determination of whether the embedded feature require bifurcation and recognition as separate derivative financial instruments.

/s/ Deloitte & Touche LLP

San Jose, California

March 28, 2025

We have served as the Company's auditor since 2020.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Balance Sheets
(In thousands, except share and per share data)

	December 31,	
	2024	2023
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 82,840	\$ 139,095
Restricted cash	1,882	1,529
Marketable securities	99,827	150,727
Accounts receivable	14,272	14,124
Inventory	14,908	12,196
Prepaid expenses and other current assets	31,498	32,950
Total current assets	<u>245,227</u>	<u>350,621</u>
Property and equipment, net	52,281	66,300
Operating lease right-of-use assets	31,479	42,706
Intangible assets, net	15,556	22,994
Goodwill	3,994	7,390
Other non-current assets	16,676	22,356
Total assets	<u><u>\$ 365,213</u></u>	<u><u>\$ 512,367</u></u>
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	\$ 18,972	\$ 21,113
Accrued and other current liabilities	31,567	52,605
Operating lease liabilities	<u>10,049</u>	<u>10,154</u>
Total current liabilities	<u>60,588</u>	<u>83,872</u>
Warrant liabilities	—	1,069
Debt	500,516	615,428
Operating lease liabilities, non-current	24,083	35,079
Other non-current liabilities	815	1,667
Total liabilities	<u><u>586,002</u></u>	<u><u>737,115</u></u>
Commitments and contingencies (see Note 15)		
Stockholders' deficit:		
Preferred stock, \$0.0001 par value; 10,000,000 shares authorized, no shares issued and outstanding as of December 31, 2024 and 2023	—	—
Class A common stock, \$0.0001 par value; 715,000,000 shares authorized as of December 31, 2024 and 2023, respectively, 38,056,676 shares issued, 36,599,113 shares outstanding as of December 31, 2024; 22,952,280 shares issued, 21,494,717 outstanding as of December 31, 2023	3	2
Class B common stock, \$0.0001 par value; 121,000,000 shares authorized, 4,872,578 and 6,472,578 shares issued and outstanding as of December 31, 2024 and 2023, respectively	1	1
Additional paid-in capital	2,204,814	1,927,419
Accumulated other comprehensive income (loss)	(295)	2
Treasury stock, at cost, 1,457,563 shares as of December 31, 2024 and 2023	(312,477)	(312,477)
Accumulated deficit	(2,112,835)	(1,839,695)
Total stockholders' deficit	<u>(220,789)</u>	<u>(224,748)</u>
Total liabilities and stockholders' deficit	<u><u>\$ 365,213</u></u>	<u><u>\$ 512,367</u></u>

*All periods presented have been retroactively adjusted to reflect the 1-for-15 reverse stock split effected on November 20, 2024. Refer to Note 1 for further information.

The accompanying notes are an integral part of these consolidated financial statements.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share data)

	Year Ended December 31,		
	2024	2023	2022
Revenue:			
Products	\$ 62,608	\$ 45,044	\$ 18,492
Services	12,787	24,735	22,206
Total revenue	<u>75,395</u>	<u>69,779</u>	<u>40,698</u>
Cost of sales:			
Products	86,005	105,236	61,985
Services	15,080	37,233	38,998
Total cost of sales	<u>101,085</u>	<u>142,469</u>	<u>100,983</u>
Gross loss	(25,690)	(72,690)	(60,285)
Operating expenses:			
Research and development	231,669	262,217	185,283
Sales and marketing	45,488	53,097	38,672
General and administrative	115,771	159,815	158,162
Impairment of goodwill and intangible assets	6,647	15,489	—
Restructuring costs	9,772	—	—
Total operating expenses	<u>409,347</u>	<u>490,618</u>	<u>382,117</u>
Loss from operations	(435,037)	(563,308)	(442,402)
Other income (expense), net:			
Change in fair value of warrant liabilities	1,069	1,936	9,222
Interest expense	(27,032)	(11,048)	(11,095)
Interest income	10,418	13,109	5,697
Gain on extinguishment of debt	148,660	—	—
Gain from acquisition of EM4	1,474	—	—
Changes in fair value of derivative liability	31,729	—	—
Losses and impairments related to investments and certain other assets, and other income (expense)	(5,164)	(10,262)	(6,689)
Total other income (expense), net	<u>161,154</u>	<u>(6,265)</u>	<u>(2,865)</u>
Loss before provision for income taxes	(273,883)	(569,573)	(445,267)
Provision for income taxes	(743)	1,696	672
Net loss	<u>\$ (273,140)</u>	<u>\$ (571,269)</u>	<u>\$ (445,939)</u>
Net loss per share:			
Basic	\$ (8.70)	\$ (22.02)	\$ (18.79)
Diluted	<u>\$ (8.70)</u>	<u>\$ (22.02)</u>	<u>\$ (18.79)</u>
Shares used in computing net loss per share:			
Basic	31,404,616	25,939,912	23,734,269
Diluted	<u>31,404,616</u>	<u>25,939,912</u>	<u>23,734,269</u>
Comprehensive Loss:			
Net loss	\$ (273,140)	\$ (571,269)	\$ (445,939)
Net unrealized gains (losses) on available-for-sale debt securities	(297)	4,228	(3,318)
Comprehensive loss	<u>\$ (273,437)</u>	<u>\$ (567,041)</u>	<u>\$ (449,257)</u>

*All periods presented have been retroactively adjusted to reflect the 1-for-15 reverse stock split effected on November 20, 2024. Refer to Note 1 for further information.

The accompanying notes are an integral part of these consolidated financial statements.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity (Deficit)
(In thousands, except share data)

	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	\$	\$	\$	\$	\$
Balance as of December 31, 2021	17,721,742	\$ 2	6,472,578	\$ 1	\$ 1,257,248	\$ (908)	\$ (235,871)	\$ (822,487)	\$ 197,985
Shares repurchased	—	—	—	—	—	—	(76,606)	—	(76,606)
Issuance of Class A common stock upon exercise of Private Warrants	27,049	—	—	—	19,003	—	—	—	19,003
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	610,385	—	—	—	3,945	—	—	—	3,945
Issuance of Class A common stock under ESPP	11,129	—	—	—	1,271	—	—	—	1,271
Retirement of unvested restricted common stock	(3,212)	—	—	—	—	—	—	—	—
Vendor payments under the stock in lieu of cash program	663,284	—	—	—	80,255	—	—	—	80,255
Investment in ECARX Holdings, Inc.	135,358	—	—	—	12,588	—	—	—	12,588
Optognition milestone awards	108,799	—	—	—	11,751	—	—	—	11,751
Acquisition of Freedom Photonics LLC	145,065	—	—	—	30,510	—	—	—	30,510
Acquisition of certain assets from Solstice Research, Inc.	24,946	—	—	—	3,361	—	—	—	3,361
Stock-based compensation	—	—	—	—	142,519	—	—	—	142,519
Payments of employee taxes related to stock-based awards	—	—	—	—	(3,730)	—	—	—	(3,730)
Other comprehensive loss	—	—	—	—	—	(3,318)	—	—	(3,318)
Net loss	—	—	—	—	—	—	—	(445,939)	(445,939)
Balance as of December 31, 2022	19,444,545	2	6,472,578	1	\$ 1,558,721	\$ (4,226)	\$ (312,477)	\$ (1,268,426)	\$ (26,405)
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	1,239,246	—	—	—	3,056	—	—	—	3,056
Issuance of Class A common stock under ESPP	47,147	—	—	—	2,641	—	—	—	2,641
Issuance of Class A common stock under Equity Financing Program	631,191	—	—	—	50,190	—	—	—	50,190
Issuance of Class A common stock to a TPK group company	220,384	—	—	—	20,000	—	—	—	20,000
Issuance of Class A common stock to Plus AI	128,431	—	—	—	12,141	—	—	—	12,141

	Class A Common Stock		Class B Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount					
Vendor payments under the stock in lieu of cash program	1,045,115	—	—	—	75,873	—	—	—	75,873
Milestone awards relating to acquisitions	196,221	—	—	—	20,656	—	—	—	20,656
Stock-based compensation	—	—	—	—	186,278	—	—	—	186,278
Payments of employee taxes related to stock-based awards	—	—	—	—	(2,137)	—	—	—	(2,137)
Other comprehensive loss	—	—	—	—	—	4,228	—	—	4,228
Net loss	—	—	—	—	—	—	—	(571,269)	(571,269)
Balance as of December 31, 2023	22,952,280	2	6,472,578	1	1,927,419	2	(312,477)	(1,839,695)	(224,748)
Issuance of Class A common stock upon exercise of stock options and vesting of restricted stock units	2,456,525	—	—	—	548	—	—	—	548
Issuance of Class A common stock under ESPP	63,675	—	—	—	1,153	—	—	—	1,153
Issuance of Class A common stock under 401(k) Plan	99,652	—	—	—	2,550	—	—	—	2,550
Issuance of Class A common stock under Equity Financing Program	8,335,450	1	—	—	89,358	—	—	—	89,359
Issuance of Class A common stock upon conversion of 2030 Convertible Notes	1,980,408	—	—	—	28,945	—	—	—	28,945
Issuance of Class A common stock in settlement of certain claims	46,978	—	—	—	1,842	—	—	—	1,842
Vendor payments under the stock in lieu of cash program	129,959	—	—	—	5,473	—	—	—	5,473
Milestone awards relating to acquisitions	391,749	—	—	—	11,250	—	—	—	11,250
Conversion of Class B common stock to Class A common stock	1,600,000	—	(1,600,000)	—	—	—	—	—	—
Expense related to Volvo Warrants	—	—	—	—	642	—	—	—	642
Stock-based compensation	—	—	—	—	137,631	—	—	—	137,631
Payments of employee taxes related to stock-based awards	—	—	—	—	(1,997)	—	—	—	(1,997)
Other comprehensive income	—	—	—	—	—	(297)	—	—	(297)
Net loss	—	—	—	—	—	—	—	(273,140)	(273,140)
Balance as of December 31, 2024	38,056,676	\$ 3	4,872,578	\$ 1	\$ 2,204,814	\$ (295)	\$ (312,477)	\$ (2,112,835)	\$ (220,789)

*All periods presented have been retroactively adjusted to reflect the 1-for-15 reverse stock split effected on November 20, 2024. Refer to Note 1 for further information.

The accompanying notes are an integral part of these consolidated financial statements.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2024	2023	2022
Cash flows from operating activities:			
Net loss	\$ (273,140)	\$ (571,269)	\$ (445,939)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	25,255	26,624	6,566
Amortization of operating lease right-of-use assets	8,497	6,987	5,237
Amortization of premium (discount) on marketable securities	(2,248)	(5,929)	1,288
Loss on marketable securities	1,901	7,594	—
Losses and impairments on non-marketable securities and certain other assets	4,000	2,141	6,016
Change in fair value of warrants	(1,069)	(1,936)	(9,222)
Vendor stock in lieu of cash program	14,614	50,829	41,459
Amortization of debt discount and issuance costs	4,938	3,236	3,236
Inventory write-offs and write-downs	20,133	19,547	12,154
Change in the fair value of the derivatives	(31,729)	—	—
Gain or write-off on sale or disposal of property and equipment	(51)	1,522	—
Gain on extinguishment of debt	(148,660)	—	—
Share-based compensation, including restructuring costs	139,135	207,132	162,405
Impairment of goodwill and other intangible assets	6,647	15,489	—
Gain from acquisition of EM4	(1,474)	—	—
Change in product warranty and other	(2,790)	2,382	2,481
Deferred taxes	(582)	(64)	232
Changes in operating assets and liabilities:			
Accounts receivable	916	(2,951)	5,144
Inventories	(19,306)	(22,951)	(10,477)
Prepaid expenses and other current assets	(4,990)	11,641	(6,557)
Other non-current assets	10,722	177	(3,289)
Accounts payable	(2,639)	3,657	5,301
Accrued and other current liabilities	(7,212)	9,158	17,768
Other non-current liabilities	(17,498)	(10,320)	(2,035)
Net cash used in operating activities	<u>(276,630)</u>	<u>(247,304)</u>	<u>(208,232)</u>
Cash flows from investing activities:			
Purchases of marketable securities	(130,404)	(301,493)	(404,598)
Proceeds from maturities of marketable securities	177,932	520,286	367,367
Proceeds from sales/redemptions of marketable securities	3,421	52,356	88,041
Purchases of property and equipment	(5,090)	(21,915)	(15,614)
Acquisition of EM4 (net of cash acquired)	(3,531)	—	—
Proceeds from disposal of property and equipment	135	—	—
Acquisition of Freedom Photonics LLC (net of cash acquired)	—	—	(2,759)
Acquisition of certain assets from Solrice Research, Inc.	—	—	(2,001)
Acquisition of Seagate's lidar business	—	(12,608)	—
Advances for capital projects and equipment	—	—	(2,450)
Net cash provided by investing activities	<u>42,463</u>	<u>236,626</u>	<u>27,986</u>
Cash flows from financing activities:			
Net proceeds from issuance of Class A common stock under the Equity Financing Program	89,359	50,190	—
Proceeds from issuance of Senior notes, net of Senior Notes and 2030 Convertible Notes issuance costs	89,202	—	—
Proceeds from exercise of stock options	548	3,061	3,986
Proceeds from sale of Class A common stock under ESPP	1,153	2,641	1,271
Payments of employee taxes related to stock-based awards	(1,997)	(2,137)	(3,730)
Proceeds from issuance of Class A common stock to a wholly owned subsidiary of TPK	—	20,000	—
Proceeds from a financing transaction	—	6,442	—
Repurchases of common stock and redemption of warrants	—	—	(80,878)
Net cash provided by (used in) financing activities	<u>178,265</u>	<u>80,197</u>	<u>(79,351)</u>
Net increase (decrease) in cash, cash equivalents and restricted cash	(55,902)	69,519	(259,597)
Beginning cash, cash equivalents and restricted cash	<u>140,624</u>	<u>71,105</u>	<u>330,702</u>

	Year Ended December 31,		
	2024	2023	2022
Ending cash, cash equivalents and restricted cash	\$ 84,722	\$ 140,624	\$ 71,105
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 14,837	\$ 7,813	\$ 7,769
Supplemental disclosures of noncash investing and financing activities:			
Conversion of 2030 Convertible Notes to equity	28,945	—	—
Recognition/derecognition of right-of-use assets in exchange for lease obligations	(4,821)	28,447	16,749
Purchases of property and equipment recorded in accounts payable and accrued liabilities	490	826	3,870
Vendor stock in lieu of cash program—advances for capital projects and equipment	—	8,551	28,402
Investment in Plus	—	10,000	—
Issuance of Class A common stock upon exercise of warrants	—	—	19,003
Investment in ECARX Holdings, Inc.	—	—	12,588

The accompanying notes are an integral part of these consolidated financial statements.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Note 1. Organization and Description of Business

Luminar Technologies, Inc. (together with its wholly-owned subsidiaries, the “Company” or “Luminar”) is incorporated in Delaware. Luminar is a technology company specializing in advanced Light Detection and Ranging (LiDAR) hardware and software solutions to enable the world’s safest and smartest vehicles. Over the past decade, Luminar has been developing proprietary LiDAR hardware, core semiconductor components, and software in-house to meet the demanding performance, safety, reliability and cost requirements to enable next-generation safety and autonomous capabilities for passenger and commercial vehicles, as well as other adjacent markets. The Company’s Class A common stock is listed on The Nasdaq Global Select Market under the symbol “LAZR.”

The Company is headquartered in Orlando, Florida and has personnel that conducts the Company’s operations from various locations in the United States and internationally including Germany, Sweden, Mexico, China and India.

Reverse Stock Split

In November 2024, following approval by the Company’s stockholders at a special meeting of stockholders (the “Special Meeting”) held in October 2024 of a reverse stock split of all the outstanding Class A common stock and Class B common stock and any common stock held by the Company as treasury shares (the “Reverse Stock Split”), and a determination by the Board of Directors of a reverse stock split ratio of 1-for-15 (the “Reverse Stock Split Ratio”), the Company effected a Reverse Stock Split at the Reverse Stock Split Ratio. All share data and per share data amounts included in this Form 10-K have been retrospectively adjusted to reflect the effect of the Reverse Stock Split.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) and applicable rules and regulations of the Securities and Exchange Commission (“SEC”) regarding annual financial reporting. All intercompany transactions and balances have been eliminated in consolidation. Certain prior period amounts in the consolidated financial statements and accompanying notes have been reclassified to conform to the current period presentation.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make judgments, estimates, and assumptions that affect the reported amounts of assets, liabilities, equity, revenues and expenses, and related disclosures. The significant estimates made by management include inventory reserves, useful life of long-lived assets, valuation allowance for deferred tax assets, impairment of goodwill and IPR&D, assets acquired in mergers and acquisitions, including intangible assets, forecasted costs associated with non-recurring engineering (“NRE”) services, restructuring costs, valuation of convertible and senior notes and derivatives associated with them, valuation of distinct goods and services in the purchase contract with customers, and stock-based compensation expense. Management periodically evaluates such estimates and they are adjusted prospectively based upon such periodic evaluation. Actual results could differ from those estimates.

Derivative Liability

The Company evaluated the embedded conversion features within its convertible and senior notes under the Financial Accounting Standards Board (“FASB”)’s Accounting Standards Codification (“ASC”) ASC 815-15, *Derivatives and hedging - Embedded Derivative* to determine if embedded features meet the definition of a derivative and, if so, whether to bifurcate the conversion feature and account for it as a separate derivative liability. This accounting treatment requires that the carrying amount of any derivatives be recorded at fair value in the consolidated balance sheet at issuance and marked-to-market at each balance sheet date as component of convertible and senior notes. The change in the fair value during the period is recorded in other income (expense), net in the consolidated statement of operations. Upon conversion, exercise, or repayment, the respective derivative liability is marked to fair value at the conversion, repayment, or exercise date, and then the related fair value amount is reclassified to other income or expense as part of gain or loss on debt extinguishment in the consolidated statement of operations.

Segment Information

The Company has determined its operating segments using the same indicators that were used to evaluate its performance internally. The Company’s business activities are organized in two operating segments:

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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(i) “Autonomy Solutions”, which includes manufacturing and sale of LiDAR sensors that measure distance using pulsed laser light to generate a 3D environmental model (a.k.a. “point cloud”), non-recurring engineering services related to the Company’s LiDAR products, development of software products that enable ADAS and autonomous capabilities for automotive applications, and licensing of certain data and information. In June 2022, the Company acquired certain assets from Solfice Research, Inc. (“Solfice” or “Civil Maps”). In January 2023, the Company acquired certain assets from Seagate Technology LLC and Seagate Singapore International Headquarters Pte. Ltd. (individually and collectively, “Seagate”). Assets purchased from both Civil Maps and Seagate have been included in the Autonomy Solutions segment.

(ii) “Advanced Technologies and Services (“ATS”), which includes the design, development, manufacturing, packaging, and development services of photonic components and sub-systems (including semiconductor lasers and photodetectors), application-specific integrated circuits, and pixel-based sensors. The Company acquired Optogration, Inc. (“Optogration”) in August 2021, Freedom Photonics LLC (“Freedom Photonics”) in April 2022, and EM4, LLC (“EM4”) in March 2024. Operations of Optogration, Freedom Photonics and EM4 have been included in the ATS segment since their respective acquisition dates.

Concentration of Credit Risk

The Company’s financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, debt securities, and accounts receivable. The Company’s deposits exceed federally insured limits. Cash held by the foreign subsidiaries of the Company as of December 31, 2024 and 2023 was not material.

The Company’s revenue is derived from customers located in the United States and international markets. Two customers, customer A and customer B, accounted for 32% and 22% of the Company’s accounts receivable as of December 31, 2024, respectively. One customer, customer A, accounted for 71% of the Company’s accounts receivable as of December 31, 2023.

Cash and Cash Equivalents

The Company’s cash and cash equivalents consist of investments with maturities of three months or less at the time of purchase. The Company’s cash equivalents include investments in money market funds, U.S. treasury securities, commercial paper, and corporate bonds.

Restricted Cash

Restricted cash consists of funds that are contractually restricted as to usage or withdrawal due to legal agreements. The Company determines current or non-current classification of restricted cash based on the expected duration of the restriction.

Debt Securities

Debt securities held by the Company consist of U.S. treasury securities, U.S agency and government sponsored securities, commercial paper, corporate bonds, and certificate of deposits. The Company classifies its debt securities as available-for-sale at the time of purchase and reevaluates such designation as of each balance sheet date. The Company considers all debt securities as available for use to support current operations, including those with maturity dates beyond one year, and are classified as current assets under marketable securities in the accompanying consolidated balance sheets. Debt securities included in marketable securities on the consolidated balance sheets consist of securities with original maturities greater than three months at the time of purchase. Debt securities are carried at fair value, with the unrealized gains and losses reported as a component of accumulated other comprehensive income (loss) (“OCI”). Any realized gains or losses on the sale of debt securities are determined on a specific identification method, and such gains and losses are reflected as a component of other income (expense), net.

The Company reviews the fair value of debt securities, and when the fair value of a debt security is below its amortized cost, the amortized cost should be written down to its fair value if (i) it is more likely than not that management will be required to sell the impaired security before recovery of its amortized basis; or (ii) management has the intention to sell the security. If neither of these conditions are met, the Company must determine whether the impairment is due to credit losses. To determine the amount of credit losses, the Company compares the present value of the expected cash flows of the security, derived by taking into account the issuer’s credit ratings and remaining payment terms, with its amortized cost basis. The amount of impairment recognized is limited to the excess of the amortized cost over the fair value of the security. An allowance for credit losses for the excess of amortized cost over the expected cash flows is recorded in other income (expense), net on the consolidated statements of operations. Non-credit related impairment losses are recorded in OCI.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Marketable Equity Investments

Marketable equity investments are measured using the quoted prices in active markets, with changes recorded in other income (expense), net on the consolidated statement of operations.

Non-Marketable Equity Investments Measured Using the Measurement Alternative

The Company holds a non-marketable equity investment in a privately held company in which the Company does not own a controlling interest or have significant influence. The investment does not have a readily determinable fair value and the Company has elected the measurement alternative, and consequently, measures the investment at cost less any impairment, adjusted to fair value, if there are observable price changes for an identical or similar investment of the same issuer.

Accounts Receivable

Accounts receivables are recorded at the invoiced amount and do not bear interest. The Company reviews the need for an allowance for doubtful accounts quarterly based on historical experience with each customer and the specifics of each customer arrangement. The Company did not have material write-offs in any period presented, and as of December 31, 2024 and 2023, the allowance for doubtful accounts was not material.

Inventory

The Company values inventory at the lower of cost or net realizable value. Costs resulting from under-utilized capacity are recorded as period expenses and not absorbed into inventory value. The Company determines the cost of inventory using the standard-cost method, which approximates actual costs based on a first-in, first-out method. In assessing the ultimate recoverability of inventory, the Company makes estimates regarding future customer demand, the timing of new product introductions, economic trends, and market conditions. If the actual product demand is significantly lower than forecasted, the Company may be required to record inventory write-downs, which would be charged to cost of sales.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization, and are depreciated using the straight-line method over the estimated useful lives of the assets as follows:

Asset Category	Estimated useful lives
Machinery and equipment	1 to 7 years
Computer hardware and software	3 to 5 years
Demonstration fleet and demonstration units	2 to 5 years
Leasehold improvements	Shorter of useful life or lease term
Vehicles	5 years
Furniture and fixtures	7 years

Design and development costs for molds, dies, and other tools that will be used in producing the products under a long-term supply arrangement are capitalized as tooling, which are included in machinery and equipment. The Company estimates useful lives for these tooling items to range between one to three years. The amount capitalized for tooling as of December 31, 2024 and 2023 was not material. Maintenance and repairs are expensed as incurred, and improvements and betterments are capitalized. When assets are retired or otherwise disposed of, the cost and accumulated depreciation and amortization are removed from the consolidated balance sheet, and any resulting gain or loss is reflected in the consolidated statements of operations and comprehensive loss in the period realized.

Intangible Assets

Intangible assets, consisting of acquired developed technology, customer relationships, customer backlog, assembled workforce, in-process research and development (“IPR&D”) and trademark are carried at cost less accumulated amortization. All intangible assets have been determined to have definite lives and are amortized on a straight-line basis over their estimated remaining economic lives, ranging from one to ten years. Amortization expense related to developed technology is included in cost of sales. Amortization expense related to customer relationships is included in sales and marketing expense. Amortization expense related to trademark is included in general and administrative expense. Intangible assets are reviewed for impairment whenever events or changes in circumstances indicate an asset’s carrying value may not be recoverable. IPR&D is tested for impairment annually or more frequently if events or changes in circumstances indicate that the IPR&D intangible asset might be impaired.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Goodwill

The Company records goodwill when the consideration paid in a business combination exceeds the fair value of the net tangible assets and the identified intangible assets acquired. Goodwill is not amortized, but instead is required to be tested for impairment annually and whenever events or changes in circumstances indicate that the carrying value of goodwill may exceed its fair value.

The Company reviews goodwill for impairment annually in its fourth quarter by initially considering qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill, as a basis for determining whether it is necessary to perform a quantitative analysis. If it is determined that it is more likely than not that the fair value of reporting unit is less than its carrying amount, a quantitative analysis is performed to identify goodwill impairment.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When such an event occurs, management determines whether there has been impairment by comparing the anticipated undiscounted future net cash flows to the related asset group's carrying value. If an asset is considered impaired, the asset is written down to fair value, which is determined based either on discounted cash flows or appraised value, depending on the nature of the asset. There was no impairment experienced of long-lived assets during the years ended December 31, 2024 or 2023.

Convertible Senior Notes

The Company's 2026 Convertible Senior Notes issued in December 2021 are accounted for as a single liability instrument measured at its amortized cost, as no other embedded features require bifurcation and recognition as derivatives. In August 2024, the Company exchanged \$421.9 million aggregate principal amount of the outstanding 2026 Convertible Senior Notes for its newly issued 2030 Convertible Notes. Upon the exchange and purchase transaction, the Company recognized \$142.2 million gain on debt extinguishment recorded in other income (expense), net in the consolidated statements of operations.

The Company accounted for the conversion option of the 2030 Convertible Notes as bifurcated derivatives and are accounted for separately as a derivative instruments. The bifurcated derivative instruments are liability classified and recorded at fair value in the consolidated balance sheet. The Company will remeasure the derivative liabilities at each reporting period with any changes to be recorded in other income (expense), net in the consolidated statements of operations.

Product Warranties

Estimated future warranty costs are accrued and charged to cost of sales in the period that the related revenue is recognized. These estimates are based on historical warranty experience and any known or expected changes in warranty exposure, such as trends of product reliability and costs of repairing and replacing defective products. The Company periodically assesses the adequacy of its recorded warranty liabilities and adjusts the said estimates as necessary.

Revenue Recognition

Under ASC 606, the Company determines revenue recognition through the following steps:

- Identifying the contract, or contracts, with the customer;
- Identifying the performance obligations in the contract;
- Determining the transaction price;
- Allocating the transaction price to performance obligations in the contract; and
- Recognizing revenue when, or as, the Company satisfies performance obligations by transferring the promised goods or services.

Nature of Products and Services and Revenue Recognition

The Autonomy Solutions segment derives revenue primarily from (a) product sales of LiDAR sensors to customers and distributors, (b) non-recurring engineering services under fixed fee arrangements ("NRE services") to integrate its LiDAR hardware for ADAS and autonomous applications in vehicle platforms, and (c) licensing of certain data and information.

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The ATS segment derives revenue primarily from (a) product sales of application-specific integrated circuits, pixel-based sensors, advanced lasers, and photonic components and sub-systems (including semiconductors lasers and photodetectors), as well as (b) NRE services for designing and testing non-standard integrated circuits.

Revenue from product sales is recognized at a point in time when control of the goods is transferred to the customer, generally occurring upon shipment or delivery dependent upon the terms of the underlying contract. Certain customer arrangements involve NRE services to design and develop custom prototype products to customers. Revenue from NRE service arrangements is recognized over time.

For NRE services, the Company recognizes revenue over time using an input method based on contract cost incurred to date compared to total estimated contract costs (cost-to-cost). For NRE service projects, the Company contracts with customers based on hourly rates or on a fixed fee basis. For arrangements based on hourly rates, revenue is recognized as services are performed and amounts are earned in accordance with the terms of a contract at estimated collectible amounts. For arrangements based on a fixed fee, revenue is recognized based on the progress or the percentage of completion of the NRE service project. Expenses associated with performance of work may be reimbursed with a markup depending on contractual terms and are included in revenue.

Contract costs related to NRE arrangements are incurred over time, which can be several years, and the estimation of these costs requires management's judgment. Significant judgment is required when estimating total contract costs and progress to completion on the arrangements, as well as whether a loss is expected to be incurred on the contract. In estimating total contract costs, the Company is also required to estimate the effort expected to be incurred to complete a NRE project. These estimates are subject to significant uncertainty, as actual time and effort incurred on completing a NRE project or actual rates of either internal or contracted personnel working on such NRE projects may differ from the Company's estimates. Changes in circumstances may change the original estimates of revenues, costs, or extent of progress toward completion, and revisions to the estimates are made which may result in increases or decreases in estimated revenues or costs, and such revisions are reflected in income in the period in which the circumstances that gave rise to the revision become known to us. We perform ongoing profitability analysis of our contracts accounted for under this method to determine whether the latest estimates of revenues, costs, and profits require updating. If at any time these estimates indicate that the contract will not be profitable, the entire estimated loss for the remainder of the contract is recorded immediately.

The Company enters into term-based licenses that provide customers the right to use certain information available with the Company. Revenue from these licenses is recognized at the point in time at which the customer is able to use and benefit from the licensed information, which is generally upon delivery of the information to the customer or upon commencement of the renewal term.

Amounts billed to customers for shipping and handling are included in revenue. Taxes collected from customers and remitted to governmental authorities are excluded from revenue on the net basis of accounting.

Arrangements with Multiple Performance Obligations

When a contract involves multiple performance obligations, the Company accounts for individual products and services separately if the customer can benefit from the product or service on its own or with other resources that are readily available to the customer and the product or service is separately identifiable from other promises in the arrangement. The consideration is allocated between separate performance obligations in proportion to their estimated standalone selling price. The transactions to which the Company had to estimate standalone selling prices and allocate the arrangement consideration to multiple performance obligations were immaterial.

The Company provides standard product warranties for a term of typically up to one year to ensure that its products comply with agreed-upon specifications. Standard warranties are considered to be assurance-type warranties and are not accounted for as separate performance obligations. See Product Warranties for accounting policy on standard warranties.

Other Policies, Judgments and Practical Expedients

Contract balances. Contract assets and liabilities represent the differences in the timing of revenue recognition from the receipt of cash from the Company's customers and billings. Contract assets reflect revenue recognized and performance obligations satisfied in advance of customer billing. Contract liabilities relate to payments received in advance of the satisfaction of performance under the contract. Receivable represents right to consideration that is unconditional. Such rights are considered unconditional if only the passage of time is required before payment of that consideration is due.

Remaining performance obligations. Revenue allocated to remaining performance obligations represents the transaction price allocated to the performance obligations that are unsatisfied, or partially unsatisfied. It includes unearned revenue and

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amounts that will be invoiced and recognized as revenue in future periods and does not include contracts where the customer is not committed. The customer is not considered committed where they are able to terminate for convenience without payment of a substantive penalty under the contract. The Company has elected the optional exemption, which allows for the exclusion of the amounts for remaining performance obligations that are part of contracts with an original expected duration of one year or less.

Significant financing component. In certain arrangements, the Company receives payment from a customer either before or after the performance obligation has been satisfied. Typically, the expected timing difference between the payment and satisfaction of performance obligations is one year or less; therefore, the Company applies a practical expedient and does not consider the effects of the time value of money. The Company's contracts with customer prepayment terms do not include a significant financing component because the primary purpose is not to receive or provide financing from or to the customers.

Contract modifications. The Company may modify contracts to offer customers additional products or services. Each of the additional products and services are generally considered distinct from those products or services transferred to the customer before the modification. The Company evaluates whether the contract price for the additional products and services reflects the standalone selling price as adjusted for facts and circumstances applicable to that contract. In these cases, the Company accounts for the additional products or services as a separate contract. In other cases where the pricing in the modification does not reflect the standalone selling price as adjusted for facts and circumstances applicable to that contract, the Company accounts on a prospective basis where the remaining goods and services are distinct from the original items and on a cumulative catch-up basis when the remaining goods and services are not distinct from the original items.

Judgments and estimates. Accounting for contracts recognized over time involves the use of various techniques to estimate total contract revenue and costs. Due to uncertainties inherent in the estimation process, it is possible that estimates of costs to complete a performance obligation will be revised in the near term. The Company reviews and updates its contract-related estimates regularly, and records adjustments as needed. For those performance obligations for which revenue is recognized using a cost-to-cost input method, changes in total estimated costs, and related progress towards complete satisfaction of the performance obligation, are recognized on a cumulative catch-up basis in the period in which the revisions to the estimates are made.

Cost of Sales

The Company includes all manufacturing and sourcing costs incurred prior to the receipt of finished goods at its distribution facility in cost of sales. Cost of sales include the fixed and variable manufacturing costs of the Company's LiDAR products, which primarily consists of personnel-related costs, including stock-based compensation for personnel engaged in manufacturing, assembly, and related services, material purchases from third-party contract manufacturers and other suppliers which are directly associated with our manufacturing process, as well as costs associated with excess capacity. Cost of sales also includes cost of providing services to customers, write downs for excess and obsolete inventory, and shipping costs.

Research and Development (R&D)

R&D expenses consist primarily of personnel-related expenses, consulting and contractor expenses, tooling and prototype materials to the extent no future benefit is expected, and allocated overhead costs. Substantially all of the Company's R&D expenses are related to developing new products and services, improving existing products and services, and developing manufacturing processes. R&D expenses are expensed as incurred.

Design and development costs for products to be sold under long-term supply arrangements are expensed as incurred. Design and development costs for molds, dies, and other tools involved in new technologies are expensed as incurred. Design and development costs for molds, dies, and other tools that will be used in producing the products under a long-term supply arrangement are capitalized as part of the molds, dies, and other tools.

Stock-Based Compensation

Employee awards

For equity classified awards, the Company measures the cost of share-based awards granted to employees, non-employees, and directors based on the grant-date fair value of the awards. The grant-date fair value of the stock options is calculated using a Black-Scholes option pricing model. The grant-date fair value of purchase rights under the Company's 2020 Employee Stock Purchase Plan ("ESPP") is calculated using a Black-Scholes option pricing model. The grant-date fair value of restricted stock is calculated based on the fair value of the underlying common stock less cash proceeds paid by the recipient to acquire the restricted stock, if any. The grant-date fair value of restricted stock units is calculated based on the fair value of the underlying common stock. The grant-date fair value of stock-based awards with market conditions is calculated using a Monte Carlo simulation model. The fair value of the stock-based compensation is recognized on a straight-line basis over the requisite

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service period, which is generally the vesting period of the award. The Company has elected to recognize the effect of forfeitures in the period they occur.

The Company grants fixed value share-based awards to certain employees, wherein the awardee is entitled to a fixed dollar value compensation settled by issuing shares on the vesting date, with the number of shares determined based on the Company's stock price on or close to the settlement date. These fixed value equity awards are considered as liability classified awards. The Company measures the cost of fixed value share-based awards granted to employees based on a fixed monetary amount that is known at the inception of the obligation. The Company records the compensation cost for the fixed dollar amount of the award over the vesting period, with a corresponding liability.

Stock-based payments to vendors / non-employees

The Company has entered into arrangements with certain vendors and other third parties wherein the Company at its discretion may elect to compensate the respective vendors for services provided in either cash or by issuing shares of the Company's Class A common stock ("Stock in lieu of Cash Program"). Typically, the amounts owed under the Stock in lieu of Cash Program are settled by issuing shares, with the number of shares generally determined based on the Company's stock price on or close to the settlement date. Payments owed under this program may be equity or liability classified depending upon fixed or variable number of shares issued for the amount owed to vendors. The Company measures the cost based on a fixed monetary amount that is known at the inception of the obligation.

Income Taxes

Income taxes are accounted for under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statement and tax bases of assets and liabilities by using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that these assets are more likely than not to be realized. In making such a determination, all available positive and negative evidence is considered, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and results of recent operations. If it is determined that deferred tax assets would be realized in the future, in excess of their net recorded amount, an adjustment would be made to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

The Company records uncertain tax positions in accordance with ASC 740, *Income Taxes*, on the basis of a two-step process which includes (1) determining whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position, and (2) for those tax positions that meet the more likely than not recognition threshold. Recognized income tax positions are measured at the largest amount of tax benefit that is more than 50% likely to be realized upon ultimate settlement with the related tax authority.

The Company recognizes interest and penalties related to unrecognized tax benefits on the income tax expense line in the accompanying consolidated statement of operations. Accrued interest and penalties are included on the related tax liability line in the consolidated balance sheet.

The Tax Cuts and Jobs Act ("TCJA") subjects a U.S. shareholder to tax on global intangible low-taxed income ("GILTI") earned by certain foreign subsidiaries. Under GAAP, the Company can make an accounting policy election to either treat taxes due on the GILTI inclusion as a current period expense or factor such amounts into the Company's measurement of deferred taxes. The Company elected to treat the GILTI inclusion as a period expense.

Recent Accounting Pronouncements Adopted

In November 2023, the FASB issued Accounting Standard Update ("ASU") 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU 2023-07"). ASU 2023-07 is expected to improve disclosures related to a public company's reportable segments and provide additional, more detailed information about a reportable segment's expenses. This ASU also aligns interim segment reporting disclosure requirements with annual segment reporting disclosure requirements. The Company adopted this ASU effective January 1, 2024. While the standard requires additional disclosures related to the Company's reportable segments in its fiscal 2024 annual reporting, adoption of the standard did not have any impact on the Company's consolidated results of operations, cash flows or financial position.

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Recent Accounting Pronouncements Not Yet Effective

In November 2024, the FASB issued ASU No. 2024-04, *Debt—Debt with Conversion and Other Options (Subtopic 470-20): Induced Conversions of Convertible Debt Instruments* (“ASU 2024-04”), which clarifies the requirements for determining whether certain settlements of convertible debt instruments should be accounted for as an induced conversion. ASU 2024-04 will be effective for the Company for the fiscal years beginning after December 15, 2025, and interim reporting periods within those annual reporting periods. Early adoption is permitted for all entities that have adopted the amendments in Update 2020-06. The Company is currently in the process of evaluating the effects of this pronouncement on the Company’s financial statements and does not expect it to have a material impact on the consolidated financial statements.

In November 2024, the FASB issued ASU No. 2024-03, *Income Statement—Reporting Comprehensive Income—Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses* (“ASU 2024-03”), which requires public business entities to disclose qualitative and quantitative information about certain costs and expenses in the notes to the financial statements on an interim and annual basis. ASU 2024-03 will be effective for the Company for the fiscal years beginning after December 15, 2026, and interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The Company is currently in the process of evaluating the effects of this pronouncement on the Company’s financial statements and does not expect it to have a material impact on the consolidated financial statements.

In December 2023, the FASB issued ASU No. ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* (“ASU 2023-09”). ASU 2023-09 requires a public company to enhance the transparency and decision usefulness of income tax disclosures to provide information to better assess how an entity’s operations and related tax risks and tax planning and operational opportunities affect its tax rate and prospects for future cash flows. ASU 2023-09 will be effective for the Company for the annual period beginning January 1, 2025 with early adoption permitted. The Company is currently in the process of evaluating the effects of this pronouncement on the Company’s financial statements and does not expect it to have a material impact on the consolidated financial statements.

Note 3. Business Combinations

EM4 Acquisition

On March 18, 2024 (the “Acquisition Date”), the Company completed its acquisition of EM4, a designer, manufacturer and seller of packaged photonic components and sub-systems for aerospace and industrial markets. The EM4 acquisition is expected to accelerate the Company’s strategy to package lasers, detectors, and ASICs into modules and sub-systems.

The Company acquired 100% of the membership interests of EM4 from G&H Investment Holding, Inc. (“G&H”), for an aggregate purchase price of approximately \$4.2 million in cash, net of working capital adjustments, and up to \$6.75 million in contingent future payments to G&H, subject to the achievement of certain financial performance targets. The fair value of the contingent consideration at the Acquisition Date was estimated to be \$0.1 million. The Company utilized a Monte Carlo simulation model to estimate the probability-weighted fair value of the contingent consideration. This transaction has been accounted for as a business combination. The acquisition related costs incurred as part of the transaction were not material.

Recording of Assets Acquired and Liabilities Assumed

Price allocation includes preliminary estimates of deferred tax balances and certain tax liabilities, for which the Company is in the process of collecting documentation to ascertain potential amounts, and fair value of certain working capital components. Preliminary estimates of fair values included in the consolidated financial statements are expected to be finalized within a one-year measurement period following the acquisition date after which any subsequent adjustments will be reflected in the consolidated statements of operations.

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The following table summarizes the preliminary purchase price allocation to assets acquired (in thousands):

	Preliminary Recorded Value
Cash and cash equivalents	\$ 557
Accounts receivable	1,064
Contract asset	1,644
Inventories, net	3,539
Prepaid expenses and other current assets	252
Property plant and equipment	1,888
Operating lease right-of-use assets	2,072
Total assets acquired	<u>11,016</u>
Current liabilities	(3,148)
Operating lease liabilities, non-current	(1,628)
Total liabilities assumed	<u>(4,776)</u>
Net assets acquired	<u><u>\$ 6,240</u></u>

Since the consideration paid by the Company to acquire EM4's business was lower than the estimated fair value of net assets acquired, the Company recognized a \$1.5 million gain from the acquisition of EM4. The following factors contributed towards the purchase price paid by the Company being lower than the estimated fair value of the net assets acquired: (a) EM4 had historically been incurring losses; (b) G&H viewed EM4 as non-core; (c) although G&H pursued a competitive auction process for the business, the ultimate timeline to completion was drawn-out due to the complexity of the transaction structure; and (d) during the later stages of the sale process, after the Company was selected as the winning bidder, EM4's business was impacted by the cancellation of certain material government programs, as well as delays in certain other purchase orders, which also served to significantly reduce the estimated probability of the contingent future payments to G&H. In the first quarter of 2024, the gain from the acquisition of EM4 was estimated to be \$1.8 million, but in the fourth quarter of 2024 the Company and G&H agreed to certain adjustments to EM4's closing balance sheet which resulted in a \$0.3 million reduction in purchase price and a commensurate increase in the gain from the acquisition of EM4.

The results of operations related to EM4 are included in the Company's consolidated statements of operations beginning from the Acquisition Date.

Acquisition of Seagate's LiDAR Business

On January 18, 2023, the Company acquired certain assets (including intellectual property ("IP"), equipment and other assets) and employees from Seagate Technology LLC and its affiliates (together "Seagate"). The Company simultaneously licensed IP from Seagate. The aggregate purchase price of \$12.6 million for the acquired assets and the license was paid in cash. The acquired assets and employees comprised Seagate's LiDAR development operations and have been combined into the Company's research and development team. This transaction has been accounted for as a business combination.

Recording of Assets Acquired

Price allocation includes estimates of fair value of certain working capital and deferred tax balances. During the second quarter ended June 30, 2023, the Company finalized its determination relating to the fair value of assets acquired from Seagate. The following table summarizes the purchase price allocation to assets acquired (in thousands):

	Recorded Value
Property plant and equipment	\$ 3,163
Developed Technology (1)	8,240
Goodwill (2)	1,063
Other assets	142
Net assets acquired	<u><u>\$ 12,608</u></u>

- (1) Technology and IP Licenses were measured using the cost approach. Significant inputs used as part of the valuation of intangible assets include personnel costs, overhead costs, developer's profit, and expected time to reproduce.
- (2) Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected future economic benefits as a result of other assets acquired that could not be individually identified and separately recognized. Goodwill is not amortized. The factors that made

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up the goodwill recognized included workforce and expected synergies derived from the technology application to the Company's current technological platforms. The entire amount of goodwill is expected to be deductible for tax purposes and is allocated to the Autonomy Solutions segment, which is also deemed the reporting unit.

Identifiable intangible assets recognized (in thousands):

	Useful Life	Recorded Value
Developed technology	4 — 6 years	\$ 8,240

Freedom Photonics Acquisition

On April 13, 2022, the Company completed its acquisition of Freedom Photonics, a designer and manufacturer of high-performance lasers and related photonic products. The Freedom Photonics acquisition is expected to help the Company secure intellectual property and the supply of a key enabling component as part of the Company's vertical integration strategy.

Pursuant to the terms of the merger agreement between the Company and Freedom Photonics, the Company acquired all of the issued and outstanding units of capital of Freedom Photonics for an aggregate purchase price of approximately \$34.6 million paid primarily in Class A common stock of the Company. The purchase price included a \$0.4 million adjustment to the preliminary estimates of working capital. In conjunction with the acquisition, the Company issued share-based compensation awards to certain employees and selling equity holders of Freedom Photonics, subject to achievement of certain service and performance conditions, including certain technical and financial milestones. These post-combination share-based awards were determined to be compensatory in nature and consequently are being expensed over the vesting period of these awards. The results of operations related to Freedom Photonics are included in the Company's consolidated statements of operations beginning from the acquisition date. As part of the transaction, the Company incurred \$1.4 million of acquisition-related costs, which were expensed and included in general and administrative expenses in the periods in which the costs were incurred.

Recording of Assets Acquired and Liabilities Assumed

The following table summarizes the purchase price allocation to assets acquired and liabilities assumed, including identification of measurement period adjustments (in thousands):

	Recorded Value
Cash and cash equivalents	\$ 1,063
Accounts receivable	3,311
Contract asset	1,913
Inventories, net	127
Prepaid expenses and other current assets	70
Property and equipment	1,353
Operating lease right-of-use assets	449
Other non-current assets	22
Intangible assets (1)	15,600
Goodwill (2)	15,885
Total assets acquired	39,793
Current and non-current liabilities	(5,158)
Total liabilities assumed	(5,158)
Net assets acquired	<u><u>\$ 34,635</u></u>

(1) Tradename was measured using the relief-from-royalty method. The remaining identifiable intangible assets were measured using the income approach. Significant inputs used as part of the valuation of intangible assets include revenue forecasts, present value factors, expected product margins, and costs to complete the IPR&D.

(2) Goodwill is the excess of the consideration transferred over the net assets recognized and represents the expected future economic benefits as a result of other assets acquired that could not be individually identified and separately recognized. Goodwill is not amortized. The factors that made up goodwill recognized included assembled workforce and component cost savings. The entire amount of goodwill is expected to be deductible for tax purposes and is allocated to the ATS segment, which is also deemed the reporting unit. In the fourth quarter of 2023, \$12.5 million of the goodwill recorded above in the ATS segment was impaired and in the third quarter of 2024, an additional \$3.4 million of the goodwill recorded above in the ATS segment was impaired. See Note 7 for additional information.

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Identifiable intangible assets recognized (in thousands):

	Useful Life	Recorded Value
Customer backlog	2 years	\$ 650
Customer relationships	4 years	2,950
Developed technology	8 years	4,000
IPR&D (1)		7,500
Tradename	4 years	500
Total intangible assets		<u><u>\$ 15,600</u></u>

(1) In the fourth quarter of 2023, \$3.0 million of the IPR&D relating to the Freedom Photonics acquisition recognized above was impaired and in the third quarter of 2024, an additional \$3.3 million of the IPR&D related to the Freedom Photonics acquisition recognized above was impaired. See Note 7 for additional information.

Solfice Assets Acquisition

On June 15, 2022, the Company completed its acquisition from Solfice of certain assets, for an aggregate consideration of \$6.3 million paid in Class A common stock of the Company, that are expected to advance Luminar's development of mapping software capabilities. The transaction was determined to be an asset acquisition under ASC 805, Business Combinations, with substantially all of the fair value attributable to acquired technology.

Note 4. Revenue

The Company's revenue is comprised of sales of LiDAR sensors, semiconductor components, NRE services and licensing of certain data and information available with the Company.

Disaggregation of Revenues

The Company disaggregates its revenue from contracts with customers by (1) geographic region based on customer's billed to location, and (2) type of good or service and timing of transfer of goods or services to customers (point-in-time or over time), as it believes it best depicts how the nature, amount, timing, and uncertainty of its revenue and cash flows are affected by economic factors. Total revenue based on the disaggregation criteria described above, as well as revenue by segment, are as follows (in thousands):

	Year Ended December 31,					
	2024		2023		2022	
	Revenue	% of Revenue	Revenue	% of Revenue	Revenue	% of Revenue
Revenue by primary geographical market:						
North America	\$ 71,939	95%	\$ 64,083	92%	\$ 35,032	86%
Asia Pacific	561	1%	1,178	2%	3,703	9%
Europe and Middle East	2,895	4%	4,518	6%	1,963	5%
Total	\$ 75,395	100%	\$ 69,779	100%	\$ 40,698	100%
Revenue by timing of recognition:						
Recognized at a point in time	\$ 62,608	83%	\$ 45,049	65%	\$ 17,595	43%
Recognized over time	12,787	17%	24,730	35%	23,103	57%
Total	\$ 75,395	100%	\$ 69,779	100%	\$ 40,698	100%
Revenue by segment:						
Autonomy Solutions	\$ 53,480	71%	\$ 48,835	70%	\$ 24,353	60%
ATS	21,915	29%	20,944	30%	16,345	40%
Total	\$ 75,395	100%	\$ 69,779	100%	\$ 40,698	100%

Volvo Stock Purchase Warrant

The Company had previously issued certain stock purchase warrants ("Volvo Warrants") to Volvo Car Technology Fund AB ("VCTF") in connection with an engineering services contract. The Volvo Warrants vest and become exercisable in two tranches based on satisfaction of certain commercial milestones. The fair value of the first tranche of the Volvo Warrants was recorded as a reduction in revenue in 2021. The second tranche of the Volvo warrants has been and will be recorded as reduction in revenue to be amortized over sales of a certain number of the Company's sensors to Volvo for use in their vehicles, which commenced in the second quarter of 2024.

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Contract assets and liabilities

Changes in the Company's contract assets and contract liabilities primarily result from the timing difference between the Company's performance and the customer's payment based on contractual terms. Contract assets primarily represent revenues recognized for performance obligations that have been satisfied but for which amounts have not been billed. Contract liabilities consist of the Company's obligation to transfer goods or services to a customer for which the Company has received consideration from the customer. Customer advanced payments represent required customer payments in advance of product shipments. Customer advance payments are recognized in revenue as or when control of the performance obligation is transferred to the customer.

The opening and closing balances of contract assets were as follows (in thousands):

	December 31,	
	2024	2023
Contract assets, current	\$ 16,199	\$ 14,132
Contract assets, non-current	—	2,471
Ending balance	\$ 16,199	\$ 16,603

The significant changes in contract assets balances consisted of the following (in thousands):

	December 31,	
	2024	2023
Beginning balance	\$ 16,603	\$ 17,970
Amounts billed that were included in the contract assets beginning balance	(3,737)	(10,965)
Contract assets from acquisition of EM4 (See Note 3)	1,644	—
Revenue recognized for performance obligations that have been satisfied but for which amounts have not been billed	1,689	9,598
Ending balance	\$ 16,199	\$ 16,603

The opening and closing balances of contract liabilities were as follows (in thousands):

	December 31,	
	2024	2023
Contract liabilities, current	\$ 1,918	\$ 3,127
Contract liabilities, non-current	—	805
Ending balance	\$ 1,918	\$ 3,932

The significant changes in contract liabilities balances consisted of the following (in thousands):

	December 31,	
	2024	2023
Beginning balance	\$ 3,932	\$ 3,008
Revenue recognized that was included in the contract liabilities beginning balance	(2,980)	(2,125)
Increase due to cash received and not recognized as revenue and billings in excess of revenue recognized during the period	966	3,049
Ending balance	\$ 1,918	\$ 3,932

Remaining Performance Obligations

Revenue allocated to remaining performance obligations was \$4.2 million as of December 31, 2024 and includes amounts within contract liabilities. The Company expects to recognize approximately 100% of this revenue over the next 12 months and the remainder thereafter.

Note 5. Restructuring

On May 3, 2024, the Company announced a restructuring and cost reduction plan (the "Restructuring Plan"), which included reducing its workforce by approximately 20% and sub-leasing certain facilities. On September 20, 2024, the Company announced additional actions under the Restructuring Plan that represented a cumulative workforce reduction of approximately 30% of the Company's full-time employees since the beginning of 2024. By December 31, 2024, the reduction in workforce

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actions resulted in the termination of 204 employees. Total separation costs associated with the Restructuring Plan amounted to \$9.8 million for the year ended December 31, 2024 and have been included as restructuring costs in the consolidated statements of operations. The following table summarizes the restructuring charges as of December 31, 2024 (in thousands):

	Severance Expense	Other Expense	Total
Balance as of December 31, 2023	\$ —	\$ —	\$ —
Restructuring charges	9,654	118	9,772
Cash payments	(6,330)	(118)	(6,448)
Non-cash charges	(2,552)	—	(2,552)
Balance as of December 31, 2024	<u>\$ 772</u>	<u>\$ —</u>	<u>\$ 772</u>

The entire balance payable of \$0.8 million related to the Autonomy Solutions segment.

Note 6. Investments

Debt Securities

The Company's investments in debt securities consisted of the following as of December 31, 2024 and 2023 (in thousands):

	December 31, 2024			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	\$ 10,933	\$ 22	\$ —	\$ 10,955
Commercial paper	19,067	7	—	19,074
Corporate bonds	81,207	166	(16)	81,357
Certificate of deposits	1,561	—	—	1,561
Total debt securities	<u>\$ 112,768</u>	<u>\$ 195</u>	<u>\$ (16)</u>	<u>\$ 112,947</u>
Included in cash and cash equivalents	<u>\$ 16,280</u>	<u>\$ 5</u>	<u>\$ —</u>	<u>\$ 16,285</u>
Included in marketable securities	<u>\$ 96,488</u>	<u>\$ 190</u>	<u>\$ (16)</u>	<u>\$ 96,662</u>

	December 31, 2023			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
U.S. treasury securities	\$ 86,764	\$ 20	\$ —	\$ 86,784
U.S. agency and government sponsored securities	2,732	—	—	2,732
Commercial paper	10,144	—	—	10,144
Corporate bonds	44,924	9	(27)	44,906
Total debt securities	<u>\$ 144,564</u>	<u>\$ 29</u>	<u>\$ (27)</u>	<u>\$ 144,566</u>
Included in cash and cash equivalents	<u>\$ 1,595</u>	<u>\$ —</u>	<u>\$ (1)</u>	<u>\$ 1,594</u>
Included in marketable securities	<u>\$ 142,969</u>	<u>\$ 29</u>	<u>\$ (26)</u>	<u>\$ 142,972</u>

The following table presents the gross unrealized losses and the fair value for those debt securities that were in an unrealized loss position for less than 12 months as of December 31, 2024 and 2023 (in thousands):

	December 31, 2024		December 31, 2023	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
U.S. agency and government sponsored securities	\$ —	\$ —	\$ —	\$ 741
Corporate bonds	(16)	31,546	(27)	30,621
Total	<u>\$ (16)</u>	<u>\$ 31,546</u>	<u>\$ (27)</u>	<u>\$ 31,362</u>

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Equity Investments

The Company's equity investments consisted of the following as of December 31, 2024 and 2023 (in thousands):

	Consolidated Balance Sheets Location	December 31,	
		2024	2023
Money market funds ⁽¹⁾	Cash and cash equivalents	\$ 17,730	\$ 101,842
Marketable equity investments ⁽¹⁾	Marketable securities	3,165	7,755
Investment in non-marketable securities ⁽²⁾	Other non-current assets	10,000	10,000
Non-marketable equity investment measured using the measurement alternative ⁽²⁾	Other non-current assets	—	4,000
Total		\$ 30,895	\$ 123,597

(1) Investments with readily determinable fair values.

(2) Investment in privately held company without readily determinable fair value.

In December 2021, the Company made an investment in 1,495 Class A Preferred Units of Robotic Research OpCo, LLC ("Forterra") for consideration of \$10.0 million, which was settled by issuing 41,261 shares of Class A common stock of the Company. The Company's investment in Forterra represented less than 5% of Forterra's capitalization. The Company neither had a significant influence over Forterra nor did its investment amounted to a controlling financial interest in Forterra. As such, the Company measured the initial investment in Forterra at cost as provided under the guidance for measurement of equity investment using the measurement alternative. In the fourth quarter of 2022, the Company recorded an impairment charge of \$6.0 million related to the investment in Forterra. As a result of anticipated losses of preferred rights and decline in enterprise value of Forterra, the Company has recorded an additional impairment charge of \$4.0 million related to the said investment in the second quarter of 2024.

In December 2022, the Company made an investment in 1,500,000 Class A ordinary shares of ECARX Holdings Inc., ("ECARX") for consideration of \$15.0 million, which was settled by issuing 135,358 shares of Class A common stock of the Company. The Company's investment in ECARX represents less than 5% of ECARX's capitalization. The Company neither has a significant influence over ECARX nor does its investment amount to a controlling financial interest in ECARX. The Company measured the investment in ECARX using the quoted prices in active markets with changes recorded in other income (expense), net on the consolidated statement of operations. Jun Hong Heng, a director of Luminar, is a director of ECARX.

In August 2023, the Company made an investment in a Simple Agreement for Future Equity ("SAFE") of Plus Automation, Inc. ("Plus") for consideration of \$10.0 million, towards which the Company initially issued 99,354 shares of Class A common stock of the Company. In September 2023, the Company settled the consideration owed by issuing an additional 29,077 shares of Class A common stock. The Company's investment in Plus represents less than 5% of Plus's capitalization. The Company neither has a significant influence over Plus nor does its investment amount to a controlling financial interest in Plus.

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Note 7. Financial Statement Components

Cash and Cash Equivalents

Cash and cash equivalents consisted of the following (in thousands):

	December 31,	
	2024	2023
Cash	\$ 48,825	\$ 35,659
Money market funds	17,730	101,842
U.S. treasury securities	5,519	—
Commercial paper	9,967	497
Corporate bonds	799	1,097
Total cash and cash equivalents	<u>82,840</u>	<u>139,095</u>

Inventory

Inventory consisted of the following (in thousands):

	December 31,	
	2024	2023
Raw materials	\$ 6,932	\$ 5,614
Work-in-process	3,917	2,521
Finished goods	4,059	4,061
Total inventory	<u>14,908</u>	<u>12,196</u>

The Company's inventory write-downs were \$20.1 million, \$19.5 million and \$12.2 million during the years ended December 31, 2024, 2023 and 2022, respectively. The write-downs were primarily due to obsolescence charges as a result of changes in product design, lower of cost or market assessment, yield losses, and other adjustments.

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2024	2023
Prepaid expenses	\$ 8,321	\$ 12,434
Contract assets	16,199	14,132
Advance payments to vendors	274	3,038
Other receivables	6,704	3,346
Total prepaid expenses and other current assets	<u>31,498</u>	<u>32,950</u>

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Property and Equipment

Property and equipment consisted of the following (in thousands):

	December 31,	
	2024	2023
Machinery and equipment	\$ 62,982	\$ 58,815
Computer hardware and software	8,404	7,025
Land	1,001	1,001
Leasehold improvements	22,620	22,531
Vehicles, including demonstration fleet	2,139	2,207
Furniture and fixtures	398	900
Construction in progress	887	2,256
Total property and equipment	98,431	94,735
Accumulated depreciation and amortization	(46,150)	(28,435)
Total property and equipment, net	<u>\$ 52,281</u>	<u>\$ 66,300</u>

Property and equipment capitalized under finance leases were not material.

Depreciation and amortization associated with property and equipment was \$21.1 million, \$22.3 million and \$4.3 million for the years ended December 31, 2024, 2023 and 2022, respectively.

The Company continually evaluates opportunities for optimizing its manufacturing and product design processes, including evaluating its sourcing strategies to reduce per unit sensor manufacturing costs. In 2023, the Company commenced a change in sourcing of certain sub-assemblies and components from one supplier to another, which required the Company to abandon certain equipment located at the legacy supplier. As a result, the Company reduced the useful lives of the long-lived assets within the impacted asset group in line with when these assets are expected to be abandoned. The reduction in the estimated useful lives of the impacted assets resulted in the Company recording \$4.4 million and \$9.2 million of incremental accelerated depreciation charges in the year ended December 31, 2024 and 2023, respectively.

Intangible Assets

The following table summarizes the activity in the Company's intangible assets (in thousands):

	December 31,	
	2024	2023
Beginning of the period	\$ 22,994	\$ 22,077
Additions	—	8,240
Amortization	(4,188)	(4,323)
Impairment ⁽¹⁾	(3,250)	(3,000)
End of the period	<u>\$ 15,556</u>	<u>\$ 22,994</u>

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Intangible assets were acquired in connection with the Company's acquisition of Optogration in August 2021, Freedom Photonics in April 2022, and acquisition of certain assets from Solfice in June 2022 and Seagate in January 2023. See Note 3 for further details of these acquisitions. The components of intangible assets were as follows (in thousands):

	December 31, 2024					December 31, 2023					Weighted Average Remaining Period (Years)
	Gross Carrying Amount	Accumulated Amortization	Impairment (1)	Net Carrying Amount	Weighted Average Remaining Period (Years)	Gross Carrying Amount	Accumulated Amortization	Impairment	Net Carrying Amount		
Customer relationships	\$ 3,730	\$ (2,295)	\$ —	\$ 1,435	3.2	\$ 3,730	\$ (1,479)	\$ —	\$ 2,251		3.7
Customer backlog	650	(650)	—	—	—	650	(650)	—	—	\$ —	—
Tradename	620	(464)	—	156	1.3	620	(339)	—	281		2.3
Assembled workforce	130	(130)	—	—	—	130	(130)	—	—		—
Developed technology	21,400	(7,435)	—	13,965	4.9	20,150	(4,188)	—	15,962		5.5
IPR&D	6,250	—	(6,250)	—	—	7,500	—	(3,000)	4,500		—
Total intangible assets	<u>\$ 32,780</u>	<u>\$ (10,974)</u>	<u>\$ (6,250)</u>	<u>\$ 15,556</u>	4.7	<u>\$ 32,780</u>	<u>\$ (6,786)</u>	<u>\$ (3,000)</u>	<u>\$ 22,994</u>		5.2

(1) See below for discussions related to impairment charges.

Amortization expense related to intangible assets was \$4.2 million, \$4.3 million and \$2.2 million for the year ended December 31, 2024, 2023 and 2022, respectively.

As of December 31, 2024, the expected future amortization expense for intangible assets was as follows (in thousands):

Period	Expected Future Amortization Expense
2025	\$ 4,127
2026	3,479
2027	3,263
2028	1,771
2029	1,635
Thereafter	1,281
Total	<u>\$ 15,556</u>

Goodwill

The carrying amount of goodwill allocated to the Company's reportable segments was as follows (in thousands):

	Autonomy Solutions	ATS	Total
Balance as of December 31, 2022	\$ 687	\$ 18,129	\$ 18,816
Goodwill related to acquisition of Seagate's LiDAR business (see Note 3)	1,063	—	1,063
Impairment of goodwill related to Freedom Photonics	—	(12,489)	(12,489)
Balance as of December 31, 2023	<u>\$ 1,750</u>	<u>\$ 5,640</u>	<u>\$ 7,390</u>
Impairment of goodwill related to Freedom Photonics	—	(3,396)	(3,396)
Balance as of December 31, 2024	<u>\$ 1,750</u>	<u>\$ 2,244</u>	<u>\$ 3,994</u>

During the year ended December 31, 2023, the Company recognized impairment charges of \$12.5 million and \$3.0 million related to goodwill and IPR&D related to Freedom Photonics. These impairment charges were due to events that occurred during the fourth quarter of 2023, including a decision to delay development activities on certain new products resulting from an increase in focus on supporting the product roadmap of the Autonomy Solutions segment, and a lowering of the growth outlook for the business due to less than anticipated traction in sales of new products. During the third quarter of 2024, the Company recognized additional impairment charges of \$3.4 million and \$3.3 million related to goodwill and IPR&D, related to Freedom Photonics driven by a slower industry LiDAR adoption rate in the near-term, as well as a reduction in the Freedom Photonics workforce assigned to perform development work for external customers.

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Total life-to-date goodwill impairment charge recorded by the ATS reportable segment was \$15.9 million. No impairment charge has been recorded by the Autonomy Solutions reportable segment.

In relation to goodwill, the Company engaged third-party valuation specialists and used industry accepted valuation models and criteria that were reviewed and approved by various levels of management. The Company assessed the fair value of the Freedom Photonics reporting unit during the third quarter of 2024, due to certain triggering events, and in fourth quarter of 2023, as part of the Company's annual review of goodwill for impairment, using the discounted cash flow method under the income approach, utilizing estimated cash flows and a terminal value, discounted at a rate of return that reflects the relative risk of the cash flows. The significant assumptions used in the assessment of the reporting unit included revenue growth rates, profit margins, operating expenses, capital expenditures, terminal value, and a discount rate. As a result of this assessment, the Company determined in the fourth quarter of 2023 that the carrying value of the Freedom Photonics reporting unit exceeded the estimated fair value by \$12.5 million. This resulted in an impairment charge to goodwill, with the remaining goodwill associated with Freedom Photonics being fully impaired in the third quarter of 2024. The Company did not identify any additional goodwill impairment based on its annual review of goodwill for impairment in the fourth quarter of 2024.

Other Non-Current Assets

Other non-current assets consisted of the following (in thousands):

	December 31,	
	2024	2023
Security deposits	\$ 2,285	\$ 2,410
Non-marketable equity investment (see Note 6 for additional information)	10,000	14,000
Prepaid expenses non-current	3,587	3,471
Contract assets	—	2,471
Other non-current assets	804	4
Total other non-current assets	\$ 16,676	\$ 22,356

Accrued and Other Current Liabilities

Accrued and other current liabilities consisted of the following (in thousands):

	December 31,	
	2024	2023
Accrued compensation and benefits	\$ 10,284	\$ 20,658
Accrued expenses	10,334	14,723
Contract losses	—	8,790
Warranty reserves	850	4,154
Contract liabilities	1,918	3,127
Accrued interest payable and other liabilities	8,181	1,153
Total accrued and other current liabilities	\$ 31,567	\$ 52,605

During the years ended December 31, 2023 and 2022, the Company recorded \$16.4 million and \$19.2 million, respectively, in cost of sales (services) for estimated losses expected to be incurred on NRE service projects with certain customers. The estimated contract losses recorded in 2023 were primarily driven by delays in achievement of certain milestones and changes in scope of project deliverables agreed upon with a customer during the year, and in 2022 were primarily driven by changes in estimates related to costs expected to be incurred for contractual milestones of certain projects based on actual experience on similar projects and changes in technical specifications by a customer during the year. During the year ended December 31, 2024, estimated losses were immaterial.

In the fourth quarter of 2024, one of the NRE service contracts was modified and substantially terminated. The Company reversed the outstanding loss provision of \$11.3 million in the fourth quarter as substantially all future costs were eliminated. The reversal of the loss provision was recorded within accrued and other current liabilities, and cost of sales. As of December 31, 2024, the Company management expects to receive payment for services rendered.

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Note 8. Debt

2026 Convertible Senior Notes and Capped Call Transactions

In December 2021, the Company issued \$625.0 million in aggregate principal amount of 1.25% Convertible Senior Notes due 2026 in a private placement, which included \$75.0 million in aggregate principal amount of such notes pursuant to the exercise in full of the option granted to the initial purchasers to purchase additional notes (collectively, the “2026 Convertible Senior Notes”). The interest on the 2026 Convertible Senior Notes is payable semi-annually in arrears on June 15 and December 15 of each year, beginning on June 15, 2022. The 2026 Convertible Senior Notes will mature on December 15, 2026, unless repurchased or redeemed earlier by the Company or converted pursuant to their terms.

Each \$1,000 principal amount of the 2026 Convertible Senior Notes is initially convertible into 3.3365 shares of the Company’s Class A common stock, par value \$0.0001, which is equivalent to an initial conversion price of approximately \$299.70 per share. The conversion rate is subject to adjustment upon the occurrence of certain specified events prior to the maturity date but will not be adjusted for any accrued and unpaid interest. In addition, following certain corporate events that occur prior to the maturity date or if the Company delivers a notice of redemption in respect of some or all of the 2026 Convertible Senior Notes, the Company will, under certain circumstances, increase the conversion rate of the 2026 Convertible Senior Notes for a holder who elects to convert its 2026 Convertible Senior Notes in connection with such a corporate event or convert its 2026 Convertible Senior Notes called for redemption during the related redemption period, as the case may be. The 2026 Convertible Senior Notes are redeemable, in whole or in part (subject to certain limitations), at the Company’s option at any time, and from time to time on or before the 40th scheduled trading day immediately before the maturity date, at a cash redemption price equal to the principal amount of the 2026 Convertible Senior Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, but only if certain liquidity conditions are satisfied and the last reported sale price per share of the Class A common stock exceeds 130% of the conversion price on (1) each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the trading day immediately before the date the Company sends the related redemption notice, and (2) the trading day immediately before the date the Company sends such notice. If the Company undergoes a fundamental change (as defined in the indenture governing the 2026 Convertible Senior Notes) prior to the maturity date, holders may require the Company to repurchase for cash all or any portion of their 2026 Convertible Senior Notes in principal amounts of \$1,000 or a multiple thereof at a fundamental change repurchase price equal to 100% of the principal amount of the 2026 Convertible Senior Notes to be repurchased, plus accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

Holders of the 2026 Convertible Senior Notes may convert their 2026 Convertible Senior Notes at their option at any time prior to the close of business on the business day immediately preceding December 15, 2026, in multiples of \$1,000 principal amount, only under the following circumstances: (1) during any calendar quarter (and only during such calendar quarter) commencing after the calendar quarter ending on March 31, 2022, if the last reported sale price per share of the Class A common stock exceeds 130% of the conversion price for each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter; (2) during the five consecutive business days immediately after any 10 consecutive trading day period (such 10 consecutive trading day period, the “measurement period”) in which the trading price per \$1,000 principal amount of 2026 Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of the Class A common stock on such trading day and the conversion rate on such trading day; (3) upon the occurrence of specified corporate events or distributions on the Class A common stock; and (4) if the 2026 Convertible Senior Notes are called for redemption. On or after June 15, 2026, holders may convert all or any portion of their 2026 Convertible Senior Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date, regardless of the foregoing circumstances. Upon conversion, the Company will pay or deliver, as the case may be, cash, shares of its Class A common stock or a combination of cash and shares of its Class A common stock, at the Company’s election. As of December 31, 2024, the conditions allowing holders of the 2026 Convertible Senior Notes to convert were not met.

The 2026 Convertible Senior Notes are senior unsecured obligations and will rank equal in right of payment with the Company’s future senior unsecured indebtedness; senior in right of payment to the Company’s future indebtedness that is expressly subordinated to the 2026 Convertible Senior Notes; effectively subordinated to the Company’s existing and future secured indebtedness, to the extent of the value of the collateral securing that indebtedness; and structurally subordinated to all existing and future indebtedness and other liabilities, including trade payables, and (to the extent the Company is not a holder thereof) preferred equity, if any, of the Company’s subsidiaries.

The Company has classified the 2026 Convertible Senior Notes as a non-current liability. Debt discount and issuance costs aggregating approximately \$16.2 million were initially recorded as a reduction to the principal amount of the 2026 Convertible Senior Notes and is being amortized as interest expense on a straight line basis over the contractual terms of the

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notes. The Company estimates that the difference between amortizing the debt discounts and the issuance costs using the straight line method as compared to using the effective interest rate method is immaterial.

In connection with the offering of the 2026 Convertible Senior Notes, the Company entered into privately negotiated capped call option transactions with certain counterparties (the “Capped Calls”). The Capped Calls each have an initial strike price of approximately \$299.70 per share, subject to certain adjustments, which corresponds to the initial conversion price of the Convertible Senior Notes. The Capped Calls have initial cap prices of \$452.40 per share, subject to certain adjustment events. The Capped Calls are generally intended to reduce the potential dilution to the Class A common stock upon any conversion of the 2026 Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of converted 2026 Convertible Senior Notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The Capped Calls expire on April 6, 2027, subject to earlier exercise. The Capped Calls are subject to either adjustment or termination upon the occurrence of specified extraordinary events affecting the Company, including a merger event, a tender offer, and a nationalization, insolvency or delisting involving the Company. In addition, the Capped Calls are subject to certain specified additional disruption events that may give rise to a termination of the Capped Calls, including changes in law, failure to deliver, and hedging disruptions. The Capped Calls are recorded in stockholders’ equity and are not accounted for as derivatives. The net cost of \$73.4 million incurred to purchase the Capped Calls was recorded as a reduction to additional paid-in capital in the accompanying consolidated balance sheet.

On August 8, 2024, pursuant to a privately negotiated exchange agreement, the Company exchanged \$421.9 million in aggregate principal amount of the outstanding 2026 Convertible Senior Notes for \$82.3 million in aggregate principal amount of its newly issued 9.0% convertible second lien senior secured notes due 2030 (the “Series 1 Notes”), and \$192.0 million in aggregate principal amount of its newly issued 11.5% convertible second lien senior secured notes due 2030 (the “Series 2 Notes”, and collectively with the Series 1 Notes, the “2030 Convertible Notes”). Concurrently with the Exchange Transaction, the Company also issued \$100.0 million aggregate principal amount of its newly issued first-lien, senior secured floating rate notes due 2028 (the “Senior Notes”) in a private placement for cash consideration of \$97.0 million. As a result of the exchange and purchase transactions (the “Note Purchase and Initial Exchange Transaction”), during the third quarter of 2024, the Company recognized \$142.2 million gain on debt extinguishment, which represented the difference between the carrying value of the 2026 Convertible Senior Notes so exchanged and the collective fair value of 2030 Convertible Notes and the Senior Notes, net of the cash payment received from the investors. The extinguishment gain was recorded in other income (expense), net in the consolidated statements of operations.

The net carrying amount of the 2026 Convertible Senior Notes was as follows (in thousands):

	December 31,	
	2024	2023
Principal	\$ 203,083	\$ 625,000
Unamortized debt discount and issuance costs	(2,068)	(9,572)
Net carrying amount	\$ 201,015	\$ 615,428

The following table sets forth the interest expense recognized related to the 2026 Convertible Senior Notes (in thousands):

	Year Ended December 31		
	2024	2023	2022
Contractual interest expense	\$ 5,724	\$ 7,812	\$ 7,812
Amortization of debt discount and issuance costs	2,358	3,236	3,236
Total interest expense	\$ 8,082	\$ 11,048	\$ 11,048

The remaining term over which the debt discount and issuance costs will be amortized is 2.0 years. Contractual interest expense is reflected as a component of other income (expense), net in the consolidated statement of operations for the years ended December 31, 2024, 2023 and 2022, respectively.

Senior Notes

On August 8, 2024, the Company issued \$100.0 million in aggregate principal amount of Senior Notes in a private placement (the “Note Purchase”). At the time of the issuance, the fair value of the Senior Notes was \$97.0 million, resulting in a debt discount of \$3.0 million.

The Senior Notes will mature on the earlier of (i) August 15, 2028 or (ii) if more than \$100.0 million of the 2026 Convertible Senior Notes remain outstanding as of June 30, 2026, then September 15, 2026. The Senior Notes will bear floating

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interest at a rate equal to Term secured overnight financing rate (“SOFR”) plus 9.0%, subject to a Term SOFR floor of 3.0%, resulting in an effective interest rate of 15.2% as of December 31, 2024. Interest is payable quarterly in arrears on February 15, May 15, August 15, and November 15 of each year.

The Company may redeem the Senior Notes at its option, in whole at any time or in part from time to time, at the following redemption prices (expressed as percentages of principal amount) plus accrued and unpaid interest, if redeemed during the following periods, inclusive of the prepayment fee due on any such redemption: on or prior to August 15, 2026: 111%; after August 15, 2026 and on or prior to August 15, 2027: 108%; and after August 15, 2027: 103%. The Senior Notes are also subject to a customary make-whole payment in the event of any redemption or acceleration of the Senior Notes on or prior to August 15, 2025.

In the event of a change of control, as defined in the indenture governing the Senior Notes (the “First Lien Indenture”), the holders of the Senior Notes may require the Company to repurchase their notes at a cash repurchase price equal to 103% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date.

The Senior Notes are guaranteed by certain of the Company’s current and future material subsidiaries on a senior secured basis, subject to certain criteria and exceptions. The Senior Notes and the guarantors are secured by a fully perfected first-priority lien on substantially all of the assets of the Company and the Guarantors, subject to certain exceptions, including any first-priority liens on customary asset-based lending collateral, including accounts receivable and inventory, pursuant to a revolving credit facility permitted under the First Lien Indenture.

The First Lien Indenture includes restrictive covenants that, among other things, limit the ability of the Company and its subsidiaries to incur additional debt, make restricted payments and grant or incur liens, in addition to a financial covenant to maintain an unrestricted cash and cash equivalents balance, plus any unused commitments then available to be drawn under any revolving credit facility permitted under the First Lien Indenture, of not less than \$35.0 million as of the last day, or for more than five days, of any calendar month. The First Lien Indenture also contains customary events of default.

The Company has classified the Senior Notes as a non-current liability. Initial debt discount and issuance costs aggregating approximately \$4.9 million were initially recorded as a reduction to the principal amount and will be amortized as interest expense over the contractual terms of the Senior Notes based on the effective interest rate of 16.0%.

The Company recognized interest expense of \$5.8 million for the Senior Notes for the year ended December 31, 2024, which included \$0.4 million from the amortization of debt discount and issuance costs.

The net carrying amount of the Senior Notes was as follows (in thousands):

	December 31, 2024
Principal	\$ 100,000
Unamortized debt discount and issuance costs	(4,501)
Net carrying amount	\$ 95,499

The remaining term over which the debt discount and issuance costs will be amortized is 3.6 years.

The Company estimated the fair value of the Senior Notes using a binomial model as of August 8, 2024, with the following valuation inputs: payment interest rate of 12.4% - 14.3%, effective borrowing rate of 14.4%, and interest rate volatility of 23.0%.

The Company estimated the fair value of the Senior Notes using a binomial model as of December 31, 2024, with the following valuation inputs: payment interest rate of 9.1% - 11.3%, effective borrowing rate of 7.4%, interest rate volatility of 24.5%.

2030 Convertible Notes

On August 8, 2024, the Company issued \$82.3 million in aggregate principal amount of the Series 1 Notes (the “Series 1 Notes”) and \$192.0 million in aggregate principal amount of the Series 2 Notes (the “Series 2 Notes” and together with the Series 1 Notes, the “2030 Convertible Notes”) (the “Initial Exchange Transaction”) in exchange for \$421.9 million in aggregate principal amount of outstanding original 2026 Convertible Notes. At the time of the exchange, the fair value of the Series 1 Notes and the Series 2 Notes was \$87.5 million and \$186.2 million, respectively, resulting in a debt premium of \$5.2 million and a debt discount of \$5.7 million, respectively.

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The 2030 Convertible Notes will mature on the earlier of (i) January 15, 2030 or (ii) if more than \$100.0 million of the 2026 Convertible Senior Notes remain outstanding as of June 30, 2026, then September 15, 2026. The Series 1 Notes bear interest at a rate of 9.0% per annum, and the Series 2 Notes bear interest at a rate of 11.5% per annum. Interest is payable quarterly in arrears on January 15, April 15, July 15, and October 15 of each year.

Each \$1,000 principal amount of the Series 1 Notes and Series 2 Notes is initially convertible into 45.8568 and 27.5141 shares of the Company's Class A common stock, which is equivalent to an initial conversion price of approximately \$21.75 and \$36.30 per share, respectively. The conversion rate is subject to adjustment upon the occurrence of certain specified events prior to the maturity date.

The 2030 Convertible Notes are convertible at the option of the holders at any time before the maturity date, at the conversion price then in effect plus a make-whole premium (the "Make-Whole Premium") equal to the lesser of (i) all regularly scheduled interest payments that would be due on the portion of such 2030 Convertible Notes being redeemed for the succeeding two year period and (ii) all regularly scheduled interest payments that would be due on the portion of such 2030 Convertible Notes being redeemed through the maturity date, and is capped at the maximum number of shares that would be issuable in connection with a conversion following a "Make-Whole Fundamental Change", as defined in the indenture governing the 2030 Convertible Notes (the "Second Lien Indenture"). The Make-Whole Premium will be payable in either cash or shares, at the Company's option.

The Company accounted for the conversion option of the Series 1 Notes and Series 2 Notes as bifurcated derivatives and are accounted for separately as derivative instruments. The bifurcated derivative instruments are liability classified and the initial fair value of the derivative instruments of \$25.2 million and \$24.0 million was recorded in the consolidated balance sheet with the corresponding amount recorded as a discount to the Series 1 Notes and Series 2 Notes, respectively, upon issuance. The Company remeasures the derivative liabilities at each reporting period with any changes recorded in other income (expense), net in the consolidated statements of operations. During the year ended December 31, 2024, \$35.5 million aggregate principal amount of the 2030 Convertible Notes were converted by holders. The Company issued 1,980,408 shares of Class A common stock to settle these conversions.

If a fundamental change, as defined in the Second Lien Indenture, occurs, then holders may require the Company to repurchase their 2030 Convertible Notes at a cash repurchase price equal to 100% of the principal amount of the 2030 Convertible Notes to be repurchased, plus accrued and unpaid interest, if any, to, but excluding, the fundamental change repurchase date. A holder that elects to convert its 2030 Convertible Notes in connection with a fundamental change may be entitled to receive a make-whole adjustment in connection with such corporate event in certain circumstances. The definition of fundamental change includes certain business combination transactions involving the Company and certain delisting events with respect to the Company's Class A common stock.

The Company may redeem the 2030 Convertible Notes at its option, in whole at any time or in part from time to time, if the closing price of the Company's Class A common stock exceeds 130% of the conversion price for a given Series then in effect for at least 20 trading days (whether or not consecutive) during any 30 day consecutive trading day period (including the last trading day of such period) ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption, and certain liquidity conditions are then satisfied, at a redemption price equal to (i) 100% of the principal amount of the 2030 Convertible Notes to be redeemed, plus (ii) accrued and unpaid interest to, but excluding the redemption date, and (iii) the Make-Whole Premium.

The 2030 Convertible Notes are guaranteed by certain of the Company's current and future material subsidiaries on a second-priority senior secured basis, subject to certain criteria and exceptions. The 2030 Convertible Notes and the guarantees are secured by a fully perfected second-priority lien on substantially all of the assets of the Company and the Guarantors, subject to the first-priority liens securing or otherwise permitted by the Senior Notes and any first-priority liens on customary asset-based lending collateral, including accounts receivable and inventory, pursuant to a revolving credit facility permitted under the Second Lien Indenture.

The Second Lien Indenture includes restrictive covenants substantially similar to the First Lien Indenture that, among other things, limit the ability of the Company and its subsidiaries to incur additional debt, make restricted payments and grant or incur liens, in addition to a financial covenant to maintain an unrestricted cash and cash equivalents balance, plus any unused commitments then available to be drawn under any revolving credit facility permitted under the Second Lien Indenture, of not less than \$31.5 million as of the last day, or for more than five days, of any calendar month. The Second Lien Indenture also contains customary events of default.

The Company has classified the 2030 Convertible Notes as a non-current liability. Initial debt discount (including the initial fair value of the bifurcated derivative liabilities) and issuance costs aggregating approximately \$21.6 million and

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\$33.3 million were initially recorded as a reduction to the principal amount of the Series 1 Notes and Series 2 Notes, respectively, and will be amortized as interest expense over the contractual terms of the 2030 Convertible Notes based on the effective interest rates of 16.3% and 16.3%, respectively.

During the year ending December 31, 2024, \$27.0 million and \$8.5 million in aggregate principal amount of Series 1 Notes and Series 2 Notes, respectively, were converted by the holders. The Company issued 1,601,304 shares and 379,104 shares of the Class A common stock to settle such conversions, respectively. The Company recognized a debt extinguishment gain of \$6.5 million on such conversions which was recorded in other income (expense), net in the consolidated statements of operations.

The Company recognized interest expense of \$2.9 million and \$10.2 million for the Series 1 Notes and Series 2 Notes, respectively, for the year ended December 31, 2024, which included \$0.7 million and \$1.5 million, respectively, from the amortization of debt discount and issuance costs.

The net carrying amount of the 2030 Convertible Notes as of December 31, 2024 was as follows (in thousands):

	Series 1 Notes	Series 2 Notes
Principal	\$ 55,245	\$ 183,453
Unamortized debt discount and issuance costs	(13,800)	(30,306)
Net carrying amount	<u>\$ 41,445</u>	<u>\$ 153,147</u>

The remaining term over which the debt discount and issuance costs will be amortized is 5.0 years.

The conversion option and other features of the Series 1 Notes and Series 2 Notes are accounted for as bifurcated derivative liabilities. The derivative liabilities are considered a Level 3 valuation and are recorded at the estimated fair value at the end of each reporting period, with the changes in fair value recognized within other expense, net in the consolidated statements of operations.

The following table shows the estimated fair value of the derivative liabilities as of the issuance and the change in fair value from issuance through December 31, 2024:

	Series 1 Notes	Series 2 Notes
Derivative liability, at issuance	\$ 25,254	\$ 23,980
Change in fair value	(14,604)	(17,125)
Decrease of derivative liability upon exercise of conversion option	(7,408)	(687)
Derivative liability, end of period	<u>\$ 3,242</u>	<u>\$ 6,168</u>

The Company estimated the fair value of the 2030 Convertible Notes and derivative liability using a binomial model, with the following valuation inputs:

	Series 1 Notes		Series 2 Notes	
	August 8, 2024	December 31, 2024	August 8, 2024	December 31, 2024
Conversion price	\$ 21.75	\$ 21.81	\$ 36.30	\$ 36.35
Risk-free rate	3.76 %	4.30 %	3.76 %	4.30 %
Effective borrowing rate	17.16 %	10.75 %	17.16 %	10.75 %
Volatility	50.00 %	50.00 %	50.00 %	50.00 %
Stock price	\$ 13.95	\$ 5.38	\$ 13.95	\$ 5.38
Payment interest rate	9.00 %	9.00 %	11.50 %	11.50 %
Redemption price	\$ 28.35	\$ 28.35	\$ 47.25	\$ 47.25

Credit Facility

In February 2024, the Company entered into two non-recourse loan and securities pledge agreements (the “Loan Agreements”) with The St. James Bank & Trust Company Ltd. (the “Lender”), pursuant to which the Company may borrow up to an aggregate of \$50.0 million (the “Credit Facility”). Any loans made by the Lender under the Loan Agreements would be collateralized by shares of the Company’s Class A common stock or stock the Company holds as investments in other companies. The Loan Agreements require the Company to pay an up-front structure fee of 1.5% on any amounts borrowed, and

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any outstanding amounts would bear interest at 8.0% per annum. The Company has not borrowed any amounts under the Credit Facility and had no outstanding balance as of December 31, 2024.

Note 9. Fair Value Measurements

As of December 31, 2024, the Company carried cash equivalents, marketable investments, bifurcated derivatives associated with the 2030 Convertible Notes and Private Warrants that are measured at fair value on a recurring basis. Additionally, the Company measures its equity-settled fixed value awards at fair value on a recurring basis. See Note 12 for further information on the Company's fixed value equity awards.

Fair value is based on the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Fair value is estimated by applying the following hierarchy, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement:

Level 1 — Observable inputs, which include unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than Level 1 inputs, such as quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are based on management's assumptions, including fair value measurements determined by using pricing models, discounted cash flow methodologies, or similar techniques.

The Company determined the fair value of its Level 1 financial instruments, which are traded in active markets, using quoted market prices for identical instruments.

Marketable investments classified within Level 2 of the fair value hierarchy are valued based on other observable inputs, including broker or dealer quotations, alternative pricing sources, or U.S. Government Treasury yield of appropriate term. When quoted prices in active markets for identical assets or liabilities are not available, the Company relies on non-binding quotes from its investment managers, which are based on proprietary valuation models of independent pricing services. These models generally use inputs such as observable market data, quoted market prices for similar instruments, or historical pricing trends of a security as relative to its peers. To validate the fair value determination provided by its investment managers, the Company reviews the pricing movement in the context of overall market trends and trading information from its investment managers. The Company performs routine procedures such as comparing prices obtained from independent source to ensure that appropriate fair values are recorded.

Given that the transfer of Private Warrants to anyone outside of a small group of individuals constituting the sponsors of Gores Metropoulos, Inc ("Gores") would result in the Private Warrants having substantially the same terms as warrants issued in connection with the initial public offering of Gores ("Public Warrants"), management determined that the fair value of each Private Warrant is the same as that of a Public Warrant, with an insignificant adjustment for short-term marketability restrictions. The fair value of Private Warrants was at de minimis as of December 31, 2024.

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The Company's financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used for such measurements were as follows (in thousands):

	Fair Value Measured as of December 31, 2024:				Total	
	Level 1	Level 2	Level 3			
Assets:						
Cash equivalents:						
Money market funds	\$ 17,730	\$ —	\$ —	\$ 17,730		
U.S. treasury securities	5,519	—	—	5,519		
Commercial paper	—	9,967	—	9,967		
Corporate bonds	—	799	—	799		
Total cash equivalents	<u>\$ 23,249</u>	<u>\$ 10,766</u>	<u>\$ —</u>	<u>\$ 34,015</u>		
Marketable investments:						
U.S. treasury securities	\$ 5,436	\$ —	\$ —	\$ 5,436		
Certificate of deposits	—	1,561	—	1,561		
Commercial paper	—	9,107	—	9,107		
Corporate bonds	—	80,558	—	80,558		
Marketable equity investments	3,165	—	—	3,165		
Total marketable investments	<u>\$ 8,601</u>	<u>\$ 91,226</u>	<u>\$ —</u>	<u>\$ 99,827</u>		
Liabilities:						
Derivative liability	\$ —	\$ —	\$ (9,410)	\$ (9,410)		
Total warrant liabilities	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (9,410)</u>	<u>\$ (9,410)</u>		

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	Fair Value Measured as of December 31, 2023:				Total	
	Level 1	Level 2	Level 3			
Assets:						
Cash equivalents:						
Money market funds	\$ 101,842	\$ —	\$ —	\$ 101,842		
Commercial paper	—	497	—	497		
Corporate bonds	—	1,097	—	1,097		
Total cash equivalents	\$ 101,842	\$ 1,594	\$ —	\$ 103,436		
Marketable investments:						
U.S. treasury securities	\$ 86,784	\$ —	\$ —	\$ 86,784		
U.S. agency and government sponsored securities	—	2,732	—	2,732		
Commercial paper	—	9,647	—	9,647		
Corporate bonds	—	43,809	—	43,809		
Marketable equity investments	7,755	—	—	7,755		
Total marketable investments	\$ 94,539	\$ 56,188	\$ —	\$ 150,727		
Liabilities:						
Private Warrants	\$ —	\$ —	\$ 1,069	\$ 1,069		
Total warrant liabilities	\$ —	\$ —	\$ 1,069	\$ 1,069		

As of December 31, 2024 and 2023, the estimated fair value of the Company's outstanding 2026 Convertible Notes was \$93.6 million and \$296.3 million, respectively. The fair value was determined based on the quoted price of the 2026 Convertible Notes in an inactive market on the last trading day of the reporting period and have been classified as Level 2 in the fair value hierarchy. See Note 8 for further information on the Company's 2026 Convertible Notes.

As of December 31, 2024, the estimated fair value of the Series 1 Notes and Series 2 Notes of the 2030 Convertible Notes, excluding the bifurcated derivative liabilities value, was \$52.1 million and \$190.8 million, respectively. As of December 31, 2024, the estimated fair value of the Senior Notes was \$111.0 million. The fair value was determined based on a binomial lattice model and have been classified as Level 3 in the fair value hierarchy. See Note 8 for further information on these notes.

The Company's other financial instruments' fair value, including accounts receivable, accounts payable and other current liabilities, approximate its carrying value due to the relatively short maturity of those instruments. The carrying amounts of the Company's finance leases approximate their fair value, which is the present value of expected future cash payments based on assumptions about current interest rates and the creditworthiness of the Company.

Note 10. Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share is calculated by dividing net income by the weighted average number of common shares and potentially dilutive securities outstanding during the period, using the treasury stock method for the employee equity incentive plans and stock-based awards, and the if-converted method for the 2026 Convertible Senior Notes and 2030 Convertible Notes. If the Company reports a net loss, the computation of diluted loss per share excludes the effect of dilutive common stock equivalents, as their effect would be antidilutive. The Company computes earnings (loss) per share using the two-class method for its Class A and Class B common stock. Earnings (loss) per share is same for both Class A and Class B common stock since they are entitled to the same liquidation and dividend rights.

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The following table sets forth the computation of basic and diluted loss for the years ended December 31, 2024, 2023, and 2022 as follows: (in thousands, except for share and per share amounts):

	December 31,		
	2024	2023	2022
Numerator:			
Net loss	\$ (273,140)	\$ (571,269)	\$ (445,939)
Denominator:			
Weighted average Common shares outstanding—Basic	31,404,616	25,939,912	23,734,269
Weighted average Common shares outstanding—Diluted	<u>31,404,616</u>	<u>25,939,912</u>	<u>23,734,269</u>
Net loss per share			
Basic	\$ (8.70)	\$ (22.02)	\$ (18.79)
Diluted	<u>\$ (8.70)</u>	<u>\$ (22.02)</u>	<u>\$ (18.79)</u>

The following table presents the potential shares of common stock outstanding that were excluded from the computation of diluted net loss per share of common stock as of the periods presented because including them would have been antidilutive or related contingencies on issuance of shares had not been met as of the periods presented:

	December 31,		
	2024	2023	2022
Warrants	383,836	383,836	383,836
Stock-based awards—Equity classified	2,220,754	2,510,594	2,255,574
Stock-based awards—Liability classified	5,037,826	1,237,495	953,512
Vendor stock-in-lieu of cash program	1,056,381	17,144	210,858
Series 1 Notes	2,540,000	—	—
Series 2 Notes	5,053,802	—	—
2026 Convertible Senior Notes	677,587	2,085,314	2,085,314
Earn-out shares	573,780	573,780	573,780
Total	<u>17,543,966</u>	<u>6,808,163</u>	<u>6,462,874</u>

The Company uses the if converted method for calculating the dilutive effect of the 2030 Convertible Notes, using the respective conversion prices of \$21.75 and \$36.30 per share for the Series 1 Notes and Series 2 Notes, respectively, and the 2026 Convertible Senior Notes using the conversion price of \$299.70 per share. The closing price of Class A common stock as of December 31, 2024, 2023 and 2022 was less than the initial conversion price.

Note 11. Stockholders' Equity (Deficit)

Class A and Class B Common Stock

The Company's Board of Directors (the "Board") has authorized two classes of common stock, Class A and Class B. As of December 31, 2024, the Company had authorized 715,000,000 shares of Class A common stock and 121,000,000 shares of Class B common stock with a par value of \$0.0001 per share for each class. As of December 31, 2024, the Company had 38,056,676 shares issued and 36,599,113 shares outstanding shares of Class A common stock, and 4,872,578 shares of issued and outstanding Class B common stock. Holders of the Class A and Class B common stock have identical rights, except that holders of the Class A common stock are entitled to one vote per share and the holder of the Class B common stock is entitled to ten votes per share. Shares of Class B common stock can be converted to shares of Class A common stock at any time at the option of the stockholder and automatically convert upon sale or transfer, except for certain transfers specified in the Company's Second Amended and Restated Certificate of Incorporation.

On November 20, 2024, following approval by the Company's stockholders at the Special Meeting of stockholders held on October 30, 2024 of the Reverse Stock Split, the Company effected the Reverse Stock Split at a ratio of 1-for-5 to 1-for-20. All share data and per share data amounts included in this Form 10-K have been retrospectively adjusted to reflect the effect of the Reverse Stock Split.

In December 2024, the holder of the Company's Class B common stock converted 1,600,000 issued and outstanding shares of Class B common stock, on a one-for-one basis, into shares of Class A common stock.

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Treasury Stock

In December 2021, the Company's Board authorized share repurchases of up to \$312.5 million of the Company's Class A common stock. The Company's share repurchase program did not obligate the Company to acquire any specific number of shares. Under the program, shares could be repurchased in privately negotiated and/or open market transactions, including under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). In 2021, the Company repurchased 1,017,584 shares Class A common stock for \$235.9 million through negotiated and market purchase transactions. In 2022, the Company repurchased additional 439,979 shares of Class A common stock for \$76.6 million from the remaining balance in the approved share repurchase program. The repurchased shares were recorded as treasury stock on the consolidated balance sheet.

Equity Financing Program

On February 28, 2023, the Company entered into an agreement (the "2023 Sales Agreement") with Virtu Americas LLC (the "Agent"), under which the Company could offer and sell, from time to time in its sole discretion, shares of the Company's Class A common stock with aggregate gross sales proceeds of up to \$75.0 million through an equity offering program under which the Agent will act as sales agent (the "Equity Financing Program"). The Company completed sales of common stock under the 2023 Sales Agreement in March 2024.

On May 3, 2024, the Company entered into an agreement (the "2024 Sales Agreement") with the Agent, which extended the Equity Financing Program under the 2023 Sales Agreement. Under the 2024 Sales Agreement, the Company may offer and sell, from time to time in its sole discretion, shares of the Company's Class A common stock with aggregate gross sales proceeds of up to an additional \$150.0 million under the Equity Financing Program. The Company intends to use the net proceeds, from offerings under this program for expenditures or payments in connection with mergers and acquisitions, strategic investments, partnerships and similar transactions, repurchases of outstanding convertible debt securities, and for general corporate and business purposes.

In August 2024, the Company increased the Equity Financing Program by an additional \$50.0 million pursuant to the 2024 Sales Agreement.

Under the 2024 Sales Agreement, the Company sets the parameters for the sale of the shares, including the number of shares to be issued, the time period during which sales are requested to be made, limitations on the number of shares that may be sold in any one trading day and any minimum price below which sales may not be made. Subject to the terms and conditions of the 2024 Sales Agreement, the Agent has agreed to use its commercially reasonable efforts, consistent with its normal trading and sales practices, to sell the shares by methods deemed to be an "at the market" offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended (the "Securities Act"), including sales made through The Nasdaq Global Select Market.

The Company issued 8,335,450 shares of Class A common stock under the Equity Financing Program during the year ended December 31, 2024 for net proceeds of \$89.4 million. As of December 31, 2024, the amount available for sale under the 2024 Sales Agreement was \$134.0 million.

Strategic Investment Agreement

On May 8, 2023, the Company entered into an agreement to issue 110,192 shares of Class A common stock to a TPK Group company, for a cash purchase price of \$10.0 million pursuant to a private placement in reliance on Section 4(a)(2) of the Securities Act. The Company received proceeds of \$10.0 million and issued 110,192 shares of Class A common stock on May 15, 2023. Additionally, the Company granted an option to purchase 110,192 additional shares of Class A common stock worth \$10.0 million, which was exercised on August 9, 2023.

Private Warrants

In 2022, 93,916 Private Warrants were exercised on a cashless basis and the Company issued 27,049 shares of Class A common stock pursuant to the exercises. As of December 31, 2024, the number of shares of Class A common stock issuable upon exercise of the outstanding Private Warrants were 111,218 shares. The Private Warrants expire on December 2, 2025. Each Private Warrant allows the holder to purchase one share of Class A common stock at \$172.50 per share.

Stock in lieu of Cash Program

The Company has entered into arrangements with certain vendors and other third parties wherein the Company at its discretion may elect to compensate the respective vendors and third parties for services provided either in cash or by issuing shares of the Company's Class A common stock. The Company considers the shares issuable under this Stock-in-lieu of Cash

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Program as liability classified awards when the arrangement with the vendors requires the Company to issue a variable number of shares to settle amounts owed.

During the year ended December 31, 2024, the Company issued 129,959 shares of Class A common stock, as part of the Stock in lieu of Cash Program. As of December 31, 2024, the Company had a total of \$2.9 million in prepaid expenses and other current and non-current assets related to its Stock in lieu of Cash Program.

The Company's vendor Stock in lieu of Cash Program activity for the year ended December 31, 2024 was as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
Unvested shares as of December 31, 2023	58,536	\$ 64.83
Granted	129,959	25.27
Vested	<u>(185,863)</u>	36.80
Unvested shares as of December 31, 2024	<u>2,632</u>	91.05

Note 12. Stock-Based Compensation

Prior to becoming a publicly traded entity, the Company issued incentive stock options, non-qualified stock options, and restricted stock to employees and non-employee consultants under its 2015 Stock Plan (the "2015 Plan"). Since the closing of the business combination between Gores Metropoulos, Inc. and Luminar Technologies, Inc. on December 2, 2020 (the "Business Combination"), the Company has not issued any new stock-based awards under the 2015 Plan.

In December 2020, the Board adopted, and the Company's stockholders approved, the 2020 Equity Incentive Plan (the "2020 Plan"). The 2020 Plan became effective upon the closing of the Business Combination. Under the 2020 Plan, the Company was originally authorized to issue a maximum number of 2,439,218 shares of Class A common stock.

In June 2022, the Company's stockholders approved an amendment and restatement of the Company's 2020 Plan (the "Amended 2020 Plan") to increase the number of shares of Class A common stock authorized for issuance by 2,400,000 additional shares and added an evergreen provision under which the number of shares of Class A common stock available for issuance under the Amended 2020 Plan will be increased on the first day of each fiscal year of the Company, beginning with the 2023 fiscal year and ending on (and including) the first day of the 2030 fiscal year, in an amount equal to the lesser of (i) 5% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year, (ii) 2,666,666 shares, or (iii) such number of shares determined by the Board. Pursuant to the evergreen provision, 1,399,437 and 1,902,833 additional shares of Class A common stock were added to the Amended 2020 Plan on January 1, 2024 and 2025, respectively.

In June 2024, the Company's stockholders approved an amendment and restatement of the Company's Amended 2020 Plan (the "Amended and Restated EIP") to increase the number of shares of Class A common stock authorized for issuance by 1,333,333 additional shares of Class A common stock.

In May 2024, the Company announced the suspension of the employer match to the 401k plan. As of June 14, 2024, the Company no longer matches the 401k plan contributions made by the employee. This action was part of the cost reduction initiatives undertaken by management.

Stock Options

Under the terms of the 2015 Plan, incentive stock options had an exercise price at or above the fair market value of the stock on the date of the grant, while non-qualified stock options were permitted to be granted below fair market value of the stock on the date of grant. Stock options granted have service-based vesting conditions only. The service-based vesting conditions vary, though typically, stock options vest over four years with 25% of stock options vesting on the first anniversary of the grant and the remaining 75% vesting monthly over the remaining 36 months. Option holders have a 10-year period to exercise the options before they expire. Forfeitures are recognized in the period of occurrence.

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The Company's stock option activity for the year ended December 31, 2024 was as follows (in thousands, except years and per share data):

	Number of Stock Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2023	413,304	\$ 26.36		
Granted	65,364	22.49		
Exercised	(21,913)	25.05		
Cancelled/Forfeited	(44,548)	35.35		
Outstanding as of December 31, 2024	<u>412,207</u>	24.84	4.68	\$ —
Vested and exercisable as of December 31, 2024	<u>412,207</u>	24.84	4.68	—
Vested and expected to vest as of December 31, 2024	<u>412,207</u>	24.84	4.68	—

During the year ended December 31, 2024, the weighted-average grant date fair value of options granted was \$17.24 per share. No stock options were granted by the Company in 2023 and 2022. The total grant date fair value of options that vested during the years ended December 31, 2024, 2023 and 2022 was \$1.6 million, \$2.1 million and \$2.9 million, respectively.

The aggregate intrinsic value of stock options exercised during the year ended December 31, 2024 was \$0.2 million. The intrinsic value is calculated as the difference between the exercise price and the fair value of the common stock on the exercise date.

Restricted Stock Awards

Prior to June 30, 2019, the Company granted restricted stock awards ("RSAs") to employees. Recipients purchased the restricted stock on the grant date and the Company has the right to repurchase the restricted shares at the same price recipients paid to obtain those shares. The restrictions lapse solely based on continued service, and generally lapse over 4 years —25% on the first anniversary of the date of issuance, and the remaining 75% monthly over the remaining 36 months. At the grant date of the award, recipients of restricted stock were granted voting rights and right to receive dividends on unvested shares. No restricted stock awards have been granted after June 30, 2019.

Restricted Stock Units

Since the closing of the Business Combination, the Company has granted restricted stock units ("RSUs") under the Amended and Restated EIP (and prior to its amendment and restatement, under the Amended 2020 Plan and the 2020 Plan). Each RSU granted under the Amended and Restated EIP represents a right to receive one share of the Company's Class A common stock when the RSU vests. RSUs generally vest over a period up to six years. The Company has granted certain performance-based equity awards that vest upon achievement of certain performance milestones. The fair value of RSUs is equal to the fair value of the Company's common stock on the date of grant.

The Company's Time-Based RSUs and Performance-Based and Other RSUs activity for the year ended December 31, 2024 was as follows:

	Time-Based RSUs		Performance-Based and Other RSUs	
	Shares	Weighted Average Grant Date Fair Value per Share	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2023	2,085,531	\$ 129.10	17,572	\$ 133.74
Granted	3,280,755	18.43	11,963	28.80
Forfeited	(914,211)	85.99	(2,228)	128.70
Vested	(2,686,407)	56.26	(26,631)	83.82
Change in units based on performance	<u>—</u>	<u>—</u>	<u>188</u>	<u>128.70</u>
Outstanding as of December 31, 2024	<u>1,765,668</u>	<u>56.60</u>	<u>864</u>	<u>231.30</u>

The total fair value of RSUs vested during the year ended December 31, 2024, 2023 and 2022 was \$153.4 million, \$164.9 million and \$116.0 million, respectively.

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As of December 31, 2024, the Company had \$124.6 million of unrecognized stock-based compensation expense related to RSUs. This cost is expected to be recognized over a weighted-average period of 2.3 years.

Fixed Value Equity Awards

The Company issues fixed value equity awards to certain employees as a part of their compensation package. These awards are issued as RSUs under the Amended and Restated EIP (and prior to its amendment and restatement, under the Amended 2020 Plan and the 2020 Plan) and are accounted for as liability classified awards under ASC 718 — Stock Compensation. Fixed value equity awards granted have service-based conditions only and vest quarterly over a period of up to six years. These awards represent a fixed dollar amount settled in a variable number of shares determined at each vesting date.

Employee Stock Purchase Plan

In December 2020, the Board and the Company's stockholders adopted the 2020 Employee Stock Purchase Plan ("ESPP") under which 487,843 shares were authorized for issuance. The 2020 ESPP became effective on February 26, 2021.

The ESPP permits eligible employees to purchase the Company's Class A common stock through payroll deduction with up to 15% of their pre-tax earnings subject to certain Internal Revenue Code limitations. The purchase price of shares is 85% of the lower of the fair market value of the Company's common stock on the first day of a six-month offering period, or the relevant purchase date. In addition, no participant may purchase more than 333 shares of common stock in each purchase period.

During 2024 and 2023, 63,675 and 47,147 shares, respectively, were purchased at a weighted average price of \$18.1 and \$56.01 per share, respectively.

The assumptions used to value purchase rights under the ESPP during the year ended December 31, 2024 were as follows:

	May 16, 2024	November 16, 2024	May 16, 2023	November 16, 2023
Expect term (years)	0.5	0.5	0.5	0.5
Volatility	103.2%	114.1%	92.2%	77.6%
Risk-free interest rate	5.41%	4.44%	5.26%	5.38%
Dividend yield	—%	—%	—%	—%

Optogration Milestone Awards

As part of the Optogration acquisition in August 2021, the Company owed up to \$22.0 million of post combination compensation related to certain service and performance conditions ("Optogration Milestone Awards"). In August 2022, the Company issued 108,799 shares of Class A common stock for \$11.0 million of the Optogration Milestone Awards and in August 2023, the Company issued 101,848 shares of Class A common stock for the remaining \$11.0 million obligation.

Freedom Photonics Awards

As discussed in Note 3, as part of the Freedom Photonics acquisition in April 2022, the Company owed up to \$29.8 million of post combination compensation related to certain service and performance conditions including achievement of certain technical and financial milestones. In March 2024, the Company issued 176,730 shares of Class A common stock for \$5.4 million of the post combination compensation due to achievement of the service and performance conditions. In May 2024, the Company issued 206,589 shares of Class A common stock for \$5.5 million of the post combination compensation due to achievement of the service and performance conditions. In June 2024, the Company issued 112,606 shares of Class A common stock for \$2.5 million of the post combination compensation due to achievement of the certain milestones. As of December 31, 2024, it is probable that the remaining conditions will be met for an amount equal to approximately \$4.5 million of post combination compensation.

Solfice Awards

The service and performance conditions related to the post combination compensation associated with the acquisition of certain assets from Solfice were met in June 2023. In June 2023, the Company issued 51,109 shares of Class A common stock and 6,777 RSUs for \$5.3 million and \$0.7 million, respectively, of the post combination compensation due to achievement of the service and performance conditions.

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Management Awards

On May 2, 2022, the Board granted an award of 720,000 RSUs to Austin Russell, the Company's Chief Executive Officer. The grant date fair value per share was \$130.50 per share. On August 19, 2022, the Board granted 33,333 RSUs to each of Thomas Fennimore, the Company's Chief Financial Officer and Alan Prescott, the Company's then Chief Legal Officer. The grant date fair value per share was \$91.80 per share. Mr. Prescott stepped down as Chief Legal Officer and Secretary of the Company effective December 12, 2024 upon mutual agreement with the Company.

These awards to Mr. Russell and Mr. Fennimore are subject to all of the following vesting conditions:

- Market condition: Achievement of three stock price milestones: \$750 or more, \$900 or more, and \$1,050 or more. The stock price will be measured based on the volume-weighted average price per share for 90 consecutive trading days;
- Service condition: Approximately 7-years of vesting; and
- Performance condition: Start of production for at least one series production program.

On March 16, 2023, the Board granted a \$12.0 million stock-price based award to the Company's Executive Vice President & General Manager that vested in six tranches of \$2.0 million each, upon achievement of the six stock price milestones of \$300, \$375, \$450, \$600, \$750 and \$900 based on 90 trading day volume-weighted average price of a share of common stock over a 7.0 years performance period. The grant date fair value per share of the award granted to the said executive was \$128.70 per share. On June 20, 2023, this award was modified to settle in a fixed number of shares and the impact of modification was not material. In September 2023, this award was forfeited and the impact of forfeiture was not material.

On June 4, 2024, the Board granted 45,831 RSUs to an executive, contingent upon market-based performance conditions. The grant date fair value of the award was \$17.28 per share. On December 12, 2024, the Board granted 116,666 RSUs to an executive, contingent upon market-based performance conditions. The grant date fair value of the award was \$2.10 per share.

The Company measured the compensation cost for the management awards outlined above using a Monte Carlo simulation model and recorded \$21.4 million and \$22.8 million in stock-based compensation expense related to these awards in the years ended December 31, 2024 and 2023, respectively.

As of December 31, 2024, the Company had \$39.1 million of unrecognized stock-based compensation expense related to management awards. This cost is expected to be recognized over a weighted-average period of 2.83 years.

Activity of the Company's management awards that include market conditions described above for the year ended December 31, 2024 was as follows:

	Shares	Weighted Average Grant Date Fair Value per Share
Outstanding as of December 31, 2023	786,666	\$ 127.13
Granted	162,498	6.38
Forfeited	(33,333)	91.80
Vested	—	—
Outstanding as of December 31, 2024	<u>915,831</u>	<u>106.99</u>

On November 8, 2023, the Board approved a formula for RSU grants to Messrs. Fennimore and Prescott for each year from 2024 through 2029 for Mr. Fennimore and through 2026 for Mr. Prescott based on achievement of annual performance goals with respect to the immediately preceding year ("Annual Performance Awards"). The number of RSUs to be awarded in a year will be determined at the sole discretion of the Human Resources and Compensation Committee of the Board (the "Compensation Committee") based on actual achievement of the annual performance goals established by the Board based on the Company's approved operating plan in respect of the immediately preceding year, with such awards ranging from 9,166 RSUs at the threshold level, 36,666 RSUs at the target level, and 55,000 RSUs at the maximum level for extraordinary performance (interpolated linearly between target levels, as applicable). For a potential award to be made in 2024, the Compensation Committee has determined that annual performance goals will be weighted 50% based on revenue and 50% based on free cash flow, with target performance for the revenue performance goal equal to \$81.4 million and target performance for the 2023 fourth quarter free cash flow goal equal to \$(37) million. Each Annual Performance Award will vest over time as to one-third immediately upon approval of the grant by the Compensation Committee, and one-third annually for 2

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years from the beginning of the performance period to incentivize performance and retention, subject to continued active employment through each vesting date.

Compensation expense

Stock-based compensation expense by function was as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Cost of sales	\$ 6,090	\$ 9,163	\$ 7,680
Research and development	51,231	65,840	40,898
Sales and marketing	16,094	27,577	15,814
General and administrative	63,165	104,552	98,013
Stock-based compensation related to restructuring	2,555	—	—
Total	<u>\$ 139,135</u>	<u>\$ 207,132</u>	<u>\$ 162,405</u>

Stock-based compensation expense by type of award was as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Equity Classified Awards:			
Stock options	\$ 369	\$ 2,197	\$ 2,666
RSAs	—	61	293
RSUs	92,398	138,820	115,267
Management awards	21,387	22,808	14,725
ESPP	845	1,313	714
Stock-based compensation related to restructuring	2,555	—	—
Liability Classified Awards:			
Equity-settled fixed value	14,530	16,691	7,545
Optogration	—	6,079	10,894
Freedom Photonics	3,212	11,965	7,633
Other	3,839	7,198	2,668
Total	<u>\$ 139,135</u>	<u>\$ 207,132</u>	<u>\$ 162,405</u>

Note 13. Leases

The Company leases offices and manufacturing facilities under non-cancelable operating leases expiring at various dates through August 2032. Some of the Company's leases include one or more options to renew, with renewal terms that if exercised by the Company, extend the lease term from one to six years. The exercise of these renewal options is at the Company's discretion. The Company's lease agreements do not contain any material terms and conditions of residual value guarantees or material restrictive covenants. The Company's short-term leases and sublease income were not material.

In September 2024, the Company reduced the leased space at one of its contracted manufacturing facility in Mexico from approximately 320,873 square feet to 220,873 square feet, for the term from December 2024 to March 2025, and further to 125,873 square feet for the lease term from April 2025 to August 2032. The Company determined that the amendment would be treated as a lease modification. The modification resulted in a remeasurement of the operating lease right-of-use asset and lease liability, and the effect was a decrease to the right-of-use asset and lease liability of \$7.5 million and \$7.8 million, respectively.

The components of lease expenses were as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Operating lease cost	\$ 11,152	\$ 8,441	\$ 6,533
Variable lease cost	1,294	1,887	2,230
Total operating lease cost	<u>\$ 12,446</u>	<u>\$ 10,328</u>	<u>\$ 8,763</u>

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Supplemental cash flow information related to leases was as follows (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Cash paid for amounts included in the measurement of lease liabilities:			
Cash paid for operating leases included in operating activities	\$ (10,750)	\$ (7,508)	\$ (6,070)
Recognition/derecognition of right-of-use asset in exchange for lease obligations:			
Operating leases	(4,821)	28,447	16,749

Supplemental balance sheet information related to leases was as follows (in thousands):

	December 31, 2024	December 31, 2023
Operating leases:		
Operating lease right-of-use assets	\$ 31,479	\$ 42,706
Operating lease liabilities:		
Operating lease liabilities, current	\$ 10,049	\$ 10,154
Operating lease liabilities, non-current	24,083	35,079
Total operating lease liabilities	<u>\$ 34,132</u>	<u>\$ 45,233</u>

Weighted average remaining terms were as follows (in years):

	December 31, 2024	December 31, 2023
Weighted average remaining lease term		
Operating leases	4.20	5.61

Weighted average discount rates were as follows:

	December 31, 2024	December 31, 2023
Weighted average discount rate		
Operating leases	6.25%	6.45%

Maturities of lease liabilities were as follows (in thousands):

Year Ending December 31,	Operating Leases
2025	\$ 10,317
2026	9,727
2027	8,766
2028	5,872
2029	1,506
Thereafter	2,555
Total lease payments	<u>38,743</u>
Less: imputed interest	(4,611)
Total leases liabilities	<u>\$ 34,132</u>

Note 14. Income Taxes

The following table presents components of loss before provision for (benefit from) income taxes for the periods presented (in thousands):

	Year Ended December 31,		
	2024	2023	2022
United States	\$ (275,057)	\$ (571,265)	\$ (445,720)
International	1,174	1,692	453
Loss before provision for (benefit from) income taxes	<u>\$ (273,883)</u>	<u>\$ (569,573)</u>	<u>\$ (445,267)</u>

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Provision for (benefit from) income taxes for the periods presented consisted of (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Current:			
U.S. federal	\$ —	\$ (150)	\$ —
U.S. state	—	(56)	—
Foreign	(161)	1,966	440
Total current:	(161)	1,760	440
Deferred:			
U.S. federal	(431)	(43)	204
U.S. state	(151)	(21)	28
Total deferred:	(582)	(64)	232
Total provision for (benefit from) income taxes	\$ (743)	\$ 1,696	\$ 672

The reconciliation between the U.S. federal statutory income tax rate of 21% to the Company's effective tax for the periods presented is as follows:

	Year Ended December 31,		
	2024	2023	2022
U.S. federal provision at statutory rate	21.0%	21.0%	21.0%
State income taxes	5.6	5.2	5.7
Foreign taxes	0.1	(0.1)	0.0
Tax credits	0.9	1.0	2.4
Fair value of financial instruments	0.1	0.1	0.4
Stock-based compensation expense	(6.9)	(3.7)	(3.4)
Executive compensation	(2.0)	(0.5)	(0.8)
Other permanent items	0.0	(0.2)	0.2
Unrecognized tax benefits	0.0	0.3	(1.4)
Change in valuation allowance	(18.5)	(23.4)	(24.3)
Effective tax rate	0.3%	(0.3%)	(0.2%)

The Company's effective tax rates differ from the federal statutory rate primarily due to the change in valuation allowance, non-deductible stock-based compensation expense net of excess windfall stock compensation deductions, nondeductible executive compensation, R&D tax credits, state income taxes, unrecognized tax benefits and the fluctuation of fair value on instruments treated as debt for GAAP and equity for tax purposes, which is not taxable/deductible for income tax purposes, for 2024, 2023 and 2022.

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The Company's deferred income tax assets and liabilities as of December 31, 2024 and 2023 were as follows (in thousands):

	Year Ended December 31,	
	2024	2023
Deferred tax assets:		
Net operating loss carry forward	\$ 246,178	\$ 235,624
Tax credits	29,595	27,311
Accruals and reserves	881	3,473
Stock-based compensation expense	6,134	17,029
Lease liability (ASC 842)	8,666	12,333
Section 174 R&D capitalization	101,876	78,673
Inventory reserves	9,113	4,584
Depreciation and amortization	15,380	9,924
Basis difference on debt obligation	9,692	—
Deferred interest expense	3,698	—
Unrealized Gain	3,451	—
Other	515	24
Total deferred tax assets	<u>435,179</u>	<u>388,975</u>
Valuation allowance	<u>(427,222)</u>	<u>(377,214)</u>
Total deferred tax asset	<u>7,957</u>	<u>11,761</u>
Deferred tax liabilities:		
Other	—	124
ROU asset (ASC 842)	7,957	11,637
Total deferred tax liabilities	<u>7,957</u>	<u>11,761</u>
Net deferred tax assets (liabilities)	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>

The Company assesses the realizability of deferred tax assets based on the available evidence, including a history of taxable income and estimates of future taxable income. In assessing the realizability of deferred tax assets, the Company considers whether it is more likely than not that all or some portion of deferred tax assets will not be realized. Due to the history of losses incurred by the Company, management believes it is not more likely than not that substantially all of the U.S. domestic deferred tax assets can be realized. Accordingly, the Company established and recorded a full valuation allowance on its U.S. domestic net deferred tax assets of \$427.2 million and \$377.2 million as of December 31, 2024 and 2023, respectively. The valuation allowance increased by \$50.0 million in 2024.

No deferred tax liabilities for foreign withholding taxes have been recorded relating to the earnings of the Company's foreign subsidiaries since all such earnings are intended to be indefinitely reinvested.

Utilization of the net operating loss and tax credit carryforwards is subject to a substantial annual limitation due to the "ownership change" limitations provided by Sections 382 and 383 of the Internal Revenue Code of 1986, as amended ("IRC") and other similar state provisions. Any annual limitation may result in the expiration of net operating loss and tax credit carryforwards before utilization. As of December 31, 2024, the Company had \$855.3 million of U.S. federal net operating loss carryforwards available to reduce future taxable income, of which \$812.1 million will be carried forward indefinitely for U.S. federal tax purposes. The federal net operating loss carryforwards, if not utilized, will begin to expire in 2035. The Company also has \$891.4 million of U.S. state net operating loss carryforwards. State net operating loss carryforwards, if not utilized, will begin to expire on various dates starting 2028.

The Company also has federal and state research and development ("R&D") tax credit carryforwards of \$29.7 million and \$7.3 million, respectively, as of December 31, 2024. The federal research credit carryforwards will begin expiring in 2035 unless previously utilized. A portion of the state research credit carryforwards will begin expiring in 2025 and the California research credits do not expire.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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The following is a reconciliation of the beginning and ending amount of unrecognized tax benefits (in thousands):

	Year Ended December 31,		
	2024	2023	2022
Unrecognized tax benefits as of the beginning of the year	\$ 6,828	\$ 8,604	\$ 6,296
Increases related to prior year tax positions	70	65	—
Decreases related to prior year tax provisions	(677)	(4,230)	(3,723)
Increase related to current year tax positions	1,253	2,389	6,031
Unrecognized tax benefits as of the end of the year	<u>\$ 7,474</u>	<u>\$ 6,828</u>	<u>\$ 8,604</u>

The Company has considered the amounts and probabilities of the outcomes that can be realized upon ultimate settlement with the tax authorities and determined unrecognized tax benefits primarily related to credits that should be established as noted in the summary roll forward above. The unrecognized tax benefits, if recognized and in absence of full valuation allowance, would impact the income tax provision by \$7.5 million in the year ended December 31, 2024. It would impact the tax provision for year ended December 31, 2023 by \$6.8 million.

As of December 31, 2024, the Company does not believe that it is reasonably possible that its unrecognized tax benefits would significantly change in the following 12 months. The Company's policy is to recognize interest and penalties associated with uncertain tax benefits as part of the income tax provision and include accrued interest and penalties with the related income tax liability on its consolidated balance sheet. To date, the Company has not recognized any interest and penalties in its consolidated statements of operations, nor has it accrued for or made payments for interest and penalties.

Note 15. Commitments and Contingencies

Purchase Obligations

The Company purchases goods and services from a variety of suppliers in the ordinary course of business. Purchase obligations are defined as agreements that are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed, minimum, or variable price provisions, and the approximate timing of the transaction. The Company had purchase obligations primarily for purchases of inventory, R&D, and general and administrative activities totaling \$122.3 million as of December 31, 2024.

Legal Matters

From time to time, the Company is involved in actions, claims, suits and other proceedings in the ordinary course of business, including assertions by third parties relating to intellectual property infringement, breaches of contract or warranties or employment-related matters. When it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated, the Company records a liability for such loss contingencies. The Company's estimates regarding potential losses and materiality are based on the Company's judgment and assessment of the claims utilizing currently available information. Although the Company will continue to reassess its reserves and estimates based on future developments, the Company's objective assessment of the legal merits of such claims may not always be predictive of the outcome and actual results may vary from the Company's current estimates. The Company's current legal accrual is not material to the financial statements.

On May 26, 2023, a putative class action styled Johnson v. Luminar Technologies, Inc., et al., Case No. 6:23-cv-00982-PGB-LHP, was filed in the United States District Court for the Middle District of Florida, against the Company and an employee. The suit asserts purported claims on behalf of purchasers of the Company's securities between February 28, 2023 and March 17, 2023 under Sections 10(b) and 20(a) of the Exchange Act for allegedly misleading statements regarding the Company's photonic integrated circuits technology. Defendants filed a motion to dismiss the complaint on December 29, 2023, the motion was granted, and on July 8, 2024 Plaintiff filed an amended complaint. Defendants filed a motion to dismiss the amended complaint on August 22, 2024, and for the second time, the Defendants' motion to dismiss was granted on December 12, 2024 based on the conclusion that the Plaintiff failed to adequately plead both the materiality and scienter elements of his claims. For procedural reasons, the court gave the Plaintiff leave to amend, and on January 10, 2025, Plaintiff filed a third amended complaint in the securities class action. The Company intends to continue to vigorously defend the litigation. The Company presently does not expect this matter to have a material adverse impact on the Company's financial results and did not accrue anything related to this matter as of December 31, 2024. On October 21, 2023, a shareholder derivative suit entitled Bhavsar v. McAuliffe, et al. Bhavsar v. McAuliffe, et al., No. 6:23-cv-02037 was filed in the United States District Court for the Middle District of Florida against directors of the Company and an employee. The suit avers claims for purported breaches of fiduciary duty, unjust enrichment, abuse of control, gross mismanagement, waste, aiding and abetting, and contribution under

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Sections 10(b) and 21D of the Exchange Act on the basis of the same purported wrongdoing alleged in the first lawsuit described above. In November 2023, three additional shareholder derivative suits averring similar claims to *Bhavsar* were filed in the United States District Court for the District of Delaware: *Lance Dechant, et al. v. Alec E. Gores, et al.*, C.A. No. 23-cv-01318-UNA, *Hutchinson v. Russell, et al.*, C.A. No. 23-cv-01345-UNA, and *Ulerio v. Russell, et al.*, C.A. No. 23-cv-01359-UNA. The Company disputes the allegations in the complaint and intends to vigorously defend the litigation. The Company has determined that the likelihood of this matter resulting in a material adverse impact on the Company's financial results is remote.

On March 21, 2024, a putative class action styled *Smith v. Gores, et al.*, C.A. No. 2024-0285-MTZ (Del. Ch.) was filed in the Delaware Court of Chancery against the Company and the members of its Board of Directors. The lawsuit asserted claims on behalf of a putative class comprised of all stockholders other than defendants and any current directors or officers of the Company. The plaintiff alleged that certain provisions in the Company's advance notice bylaws (the "Challenged Provisions") were invalid and void and that the members of the Board have breached their fiduciary duty of loyalty by adopting and maintaining the Challenged Provisions. In addition to seeking declaratory, equitable, and injunctive relief, the plaintiff sought an award of attorneys' fees and other costs and expenses on behalf of the putative class. On September 4, 2024, the court granted the parties stipulation to dismiss this action with prejudice, as to the individual plaintiff only, in light of certain amendments to the Challenged Provisions adopted by the Board, which rendered the action moot. The court retained jurisdiction of the action solely for the purpose of adjudicating an attorneys' fees and expenses application by the plaintiff. Solely to avoid the time and expense of continued litigation, the parties agreed to resolve the fee application in exchange for a payment by the Company of \$125,000 to plaintiff's counsel. This matter is now closed.

Note 16. Segment and Customer Concentration Information

Reportable segments are (i) Autonomy Solutions and (ii) ATS, which also represent our operating segments. See Note 2 for additional information on the Company's operating segments. These segments reflect the way the chief operating decision maker ("CODM") evaluates the Company's business performance and manages its operations. Each segment has distinct product offerings, customers and market penetration. The Chief Executive Officer is the CODM of the Company.

The Company's CODM evaluates segment performance using segment operating loss and segment assets to allocate operating and capital resources to each segment. The CODM also considers other financial information, including revenue data broken down by products and services within the Autonomy Solutions and ATS segments.

Autonomy Solutions

This segment manufactures and distributes commercial LiDAR sensors that measure distance using laser light for automotive mobility applications. This segment is impacted by trends in the automobile and autonomous vehicles sector and the infrastructure/technology sector.

ATS

This segment is in the business of development of semiconductor technology based lasers and sensors. This segment also designs, tests and provides consulting services for development of integrated circuits. This segment is impacted by trends in and the strength of the automobile and aeronautics sectors as well as government spending in military and defense activities.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The accounting policies of the operating segments are the same as those described in Note 2. Segment operating results and reconciliations to the Company's consolidated balances are as follows (in thousands):

	Year ended December 31, 2024		
	Autonomy Solutions	ATS	Total
Revenue:			
Products	\$ 52,181	\$ 10,427	\$ 62,608
Services	1,299	11,488	12,787
Intersegment revenue	—	19,165	19,165
	<u>53,480</u>	<u>41,080</u>	<u>94,560</u>
<i>Reconciliation of revenue</i>			
Elimination of intersegment revenue			(19,165)
Total revenue			75,395
Less:			
Depreciation and amortization	22,269	2,986	
Impairment of goodwill and intangible assets	—	6,647	
Other segment items (a)	444,209	53,486	
Operating loss	<u>\$ (412,998)</u>	<u>\$ (22,039)</u>	<u>\$ (435,037)</u>
<i>Reconciliation of profit or loss</i>			
Other income (expense), net			161,154
Loss before provision for income taxes			<u>\$ (273,883)</u>
Other significant items:			
Total assets	\$ 323,788	\$ 41,425	\$ 365,213
Inventory	\$ 11,436	\$ 3,472	\$ 14,908

(a) For each reportable segment, the other segment items category includes:

- Autonomy Solutions - Professional and contracting service expenses, travel expenses, insurance and maintenance expenses, utility expenses, restructuring costs and certain overhead expenses.
- ATS - Professional and contracting service expenses, courier & postage expenses, insurance expenses, facility maintenance & utility expenses, restructuring costs and certain overhead expenses.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Year ended December 31, 2023

	Autonomy Solutions	ATS	Total
Revenue:			
Products	\$ 39,489	\$ 5,555	\$ 45,044
Services	9,346	15,389	24,735
Intersegment revenue	<u>—</u>	<u>17,528</u>	<u>17,528</u>
	48,835	38,472	87,307
<i>Reconciliation of revenue</i>			
Elimination of intersegment revenue			(17,528)
Total revenue			69,779
Less:			
Depreciation and amortization	23,935	2,689	
Impairment of goodwill and intangible assets	<u>—</u>	<u>15,489</u>	
Other segment items (a)	<u>538,568</u>	<u>69,934</u>	
Operating loss	\$ (513,668)	\$ (49,640)	\$ (563,308)
<i>Reconciliation of profit or loss</i>			
Other income (expense), net			(6,265)
Loss before provision for income taxes			<u>\$ (569,573)</u>
Other significant items:			
Total assets	\$ 474,427	\$ 37,940	\$ 512,367
Inventory	\$ 11,125	\$ 1,071	\$ 12,196

(a) For each reportable segment, the other segment items category includes:

- Autonomy Solutions - Professional and contracting service expenses, travel expenses, insurance and maintenance expenses, utility expenses, restructuring costs and certain overhead expenses.
- ATS - Professional and contracting service expenses, courier & postage expenses, insurance expenses, facility maintenance & utility expenses, restructuring costs and certain overhead expenses.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
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Year ended December 31, 2022

	Autonomy Solutions	ATS	Total
Revenue:			
Products	\$ 13,509	\$ 4,983	\$ 18,492
Services	10,844	11,362	22,206
Intersegment revenue	<u>—</u>	<u>12,485</u>	<u>12,485</u>
	24,353	28,830	53,183
<i>Reconciliation of revenue</i>			
Elimination of intersegment revenue			(12,485)
Total revenue			40,698
Less:			
Depreciation and amortization	4,110	2,456	
Impairment of goodwill and intangible assets	<u>—</u>	<u>—</u>	
Other segment items (a)	<u>433,251</u>	<u>55,768</u>	
Operating loss	\$ (413,008)	\$ (29,394)	\$ (442,402)
<i>Reconciliation of profit or loss</i>			
Other income (expense), net			(2,865)
Loss before provision for income taxes			\$ (445,267)
Other significant items:			
Total assets	\$ 640,003	\$ 47,324	\$ 687,327
Inventory	\$ 8,318	\$ 474	\$ 8,792

(a) For each reportable segment, the other segment items category includes:

- Autonomy Solutions - Professional and contracting service expenses, travel expenses, insurance and maintenance expenses, utility expenses, restructuring costs and certain overhead expenses.
- ATS - Professional and contracting service expenses, courier & postage expenses, insurance expenses, facility maintenance & utility expenses, restructuring costs and certain overhead expenses.

One customer, customer A of the Autonomy Solutions segment, accounted for 39% of the Company's revenue for the year ended December 31, 2024. Two customers, customer A and customer B of the Autonomy Solutions segment, accounted for 35% and 11%, respectively, of the Company's revenue for the year ended December 31, 2023. Two customers, customer A and customer B of the Autonomy Solutions segment, accounted for 17% and 21%, respectively, of the Company's revenue for the year ended December 31, 2022. A vast majority of the Company's long-lived assets are located in the United States and Mexico.

Note 17. Related Party Transactions

Equity Investments

In February 2021, the Company invested \$15.0 million in a special purpose acquisition company, of which Mr. Jun Hong Heng, was the Chairman and Chief Executive Officer, and a principal shareholder. Mr. Heng became a director of the Company in June 2021. The terms of such investment were no less favorable to the Company than to other third-party investors. During 2021, the Company sold \$2.9 million of this investment and had a remaining balance of \$12.1 million as of December 31, 2021. The fair value of this investment as of December 31, 2021 was \$12.2 million, which was included in marketable securities in the balance sheet. The Company sold this investment in its entirety in the second quarter of 2022. The special purpose acquisition company merged with ECARX on December 20, 2022 and Mr. Heng continues to be a director of the merged company.

In June 2022, the Company invested in a special purpose acquisition company through open market purchases, of which Mr. Alec Gores, a current Luminar director, was the Chairman and Chief Executive Officer, and a principal shareholder. The special purpose acquisition company merged with Polestar Automotive Holdings UK PLC on June 24, 2022. The balance of this investment as of December 31, 2022 was not material.

LUMINAR TECHNOLOGIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 18. Subsequent Events

Exchange Transaction

On March 23, 2025, the Company entered into separate, individually negotiated private exchange agreements (collectively, the “Exchange Agreements”) with certain holders of the Company’s 2026 Convertible Senior Notes to exchange \$18.2 million aggregate principal amount of 2026 Convertible Notes (the “Exchanged Notes”) for newly issued shares of the Company’s Class A common stock, plus, in certain circumstances, cash in respect of accrued and unpaid interest on the Exchanged Notes (such exchanges, collectively, the “Exchange Transactions”). The Company canceled the Exchanged Notes received in the Exchange Transactions.

The Exchange Transactions settled in four consecutive daily tranches, each for \$4.55 million aggregate principal amount of Exchanged Notes, commencing on March 25, 2025. The number of shares of Class A common stock issued for each \$1,000 principal amount of Exchanged Notes in each tranche was based on a formula set forth in the Exchange Agreements. As of March 28, 2025, which was the final settlement date of the Exchange Transactions, the Company had issued an aggregate of 1,951,819 shares of Class A common stock in the Exchange Transactions.

The Company did not receive any cash proceeds from the Exchange Transactions. Following the consummation of the Exchange Transactions, an aggregate of \$184.9 million aggregate principal amount of 2026 Convertible Senior Notes remained outstanding.

Increase in Equity Financing Program

In March 2025, the Company expanded the program under the 2024 Sales Agreement as outlined in Note 11 with the Agent, under which the Company may offer and sell, from time to time in its sole discretion, shares of its Class A common stock, with aggregate gross proceeds of up to an additional \$75.0 million under the Equity Financing Program. The Company intends to use the net proceeds from offerings under the Equity Financing Program for general corporate purposes, including payment of interest on debt and otherwise to repay, repurchase, or service such debt.

Vendor Share Issuance

On March 27, 2025, the Company agreed to issue up to 1,000,000 shares of Class A common stock to an affiliate of a Company vendor, TPK Holding Co., Ltd. (“TPK”), for services to be rendered or other payment obligations over the next several fiscal quarters under contractual arrangements between the Company and TPK.

Amendment to Executive Employment Agreement

On March 27, 2025, the Company and Tom Fennimore, Chief Financial Officer of the Company, entered into an Amendment (the “Amendment”), to Mr. Fennimore’s existing Executive Compensation Letter Agreement, dated November 7, 2023 (the “Fennimore Letter Agreement”). The Amendment amends the Fennimore Letter Agreement to: (i) reduce the Fixed Value Equity Award (as defined in the Fennimore Letter Agreement) from \$1,500,000 to \$1,400,000 for 2025 and 2026; (ii) provide that for 2025 and 2026, the Fixed Value Equity Award will be granted in quarterly installments subject to Mr. Fennimore’s continued service through each applicable grant date, (iii) that the Fixed Value Equity Award for 2025 will be paid in cash, and the Fixed Value Equity Award for 2026 will be granted in the form of cash or stock, as determined by the Board or Compensation Committee, based on the most recent price per share of the Company’s Class A common stock on the applicable grant date; and (iii) in the event of Mr. Fennimore’s termination by the Company with cause or due to his voluntary resignation at any time in 2025 or 2026, the Company shall recoup any Fixed Value Equity Award already granted as of his termination date for the year in which any termination occurs.

Execution of a Memorandum of Understanding

In March 2025, the Company signed a memorandum of understanding (MoU) with a non-recurring engineering service customer with respect to the termination of their agreement during the fourth quarter of 2024. This MoU confirmed acceptance of all services previously provided, and approved invoicing of \$12.5 million of services.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE.

None.

ITEM 9A. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures

We have established disclosure controls and procedures that are designed to ensure that the information required to be disclosed by us in the reports that we file or submit under the Exchange Act and other securities laws is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate to allow timely decision making and timely required disclosure to investors.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we have evaluated the effectiveness of our disclosure controls and procedures as required under Rules 13a-15(e) and 15d-15(e) under the Exchange Act as of December 31, 2024. Based on this evaluation, our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures were effective as of December 31, 2024.

Management's Report on Internal Control Over Financial Reporting

Management, including our CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act and based upon the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (“the COSO framework”). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external purposes in accordance with U.S. GAAP.

Management's internal control system provides reasonable assurance with respect to the preparation and fair presentation of financial statements, but has inherent limitations that may not prevent or detect all misstatements, including the possibility of human error, circumvention of controls, or fraud.

Under the supervision and with the participation of our management, including our CEO and CFO, we have conducted an evaluation of the effectiveness of our internal control over financial reporting based on the COSO framework. Based on evaluation under these criteria, management has concluded that our internal control over financial reporting was effective as of December 31, 2024 to provide reasonable assurance regarding the reliability of financial reporting and preparation of consolidated financial statements in accordance with U.S. GAAP.

Inherent Limitations on Effectiveness of Controls

Our management, including our principal executive officer and our principal financial officer, has determined that our internal controls are reasonably designed and implemented to assure reliable financial reporting and preparation of our financial statements. However, no control system can prevent and detect all errors and fraud. The design of any system of controls is based in part on certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION.

(a) On March 27, 2025, the Company and Tom Fennimore, Chief Financial Officer of the Company, entered into an Amendment (the “Amendment”), to Mr. Fennimore’s existing Executive Compensation Letter Agreement, dated November 7, 2023 (the “Fennimore Letter Agreement”). The Amendment amends the Fennimore Letter Agreement to: (i) reduce the Fixed Value Equity Award (as defined in the Fennimore Letter Agreement) from \$1,500,000 to \$1,400,000 for 2025 and 2026; (ii) provide that for 2025 and 2026, the Fixed Value Equity Award will be granted in quarterly installments subject to Mr. Fennimore’s continued service through each applicable grant date, (iii) that the Fixed Value Equity Award for 2025 will be paid in cash, and the Fixed Value Equity Award for 2026 will be granted in the form of cash or stock, as determined by the Board or Compensation Committee, based on the most recent price per share of the Company’s Class A common stock on the applicable grant date; and (iii) in the event of Mr. Fennimore’s termination by the Company with cause or due to his voluntary resignation at any time in 2025 or 2026, the Company shall recoup any Fixed Value Equity Award already granted as of his termination date for the year in which any termination occurs.

Except as modified by the Amendment, the Fennimore Letter Agreement remains in full force and effect.

The foregoing description of the Amendment is qualified in its entirety by reference to the full text of the Amendment, a copy of which is filed herewith as Exhibit 10.24, and which is incorporated herein by reference.

(b) Our Section 16 officers and directors (as defined in Rule 16a-1 under the Exchange Act) may from time to time enter into plans for the purchase or sale of the Company’s stock that are intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) under the Exchange Act. During the fiscal quarter ended December 31, 2024, none of our directors or officers (as defined in Rule 16a-1(f) under the Securities Exchange Act) adopted or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement,” as those terms are defined in Item 408 of Regulation S-K.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS.

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE.

The information required by this item will be included under the captions “Board of Directors and Corporate Governance,” “Proposal One: Election of Directors” and “Executive Officers” in our Proxy Statement for the 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2024 and is incorporated herein by reference.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics that applies to all of the members of our board of directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Our Code of Business Conduct and Ethics is posted on the Investor Relations section of our website, which is located at <https://investors.luminartech.com> by clicking on “Governance Documents” in the “Governance” section of our website. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding amendment to, or waiver from, a provision of our Code of Business Conduct and Ethics by posting such information on our website at the location specified above.

Insider Trading Policy

We have adopted an Insider Trading Policy governing the purchase, sale, and other dispositions of our securities by our directors, officers, employees and other individuals associated with us that we believe is reasonably designed to promote compliance with insider trading laws, rules and regulations, and listing standards applicable to us. A copy of our Insider Trading Policy is filed as Exhibit 19.1 to this Form 10-K. In addition, with regard to the Company’s trading in its own securities, it is the Company’s policy to comply with the federal securities laws and the applicable exchange listing requirements.

ITEM 11. EXECUTIVE COMPENSATION.

The information required by this item will be included under the captions “Board of Directors and Corporate Governance” and “Executive Compensation” in our Proxy Statement for the 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2024 and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS.

The information required by this item will be included under the captions “Equity Compensation Plan Information” and “Security Ownership of Certain Beneficial Owners and Management” in our Proxy Statement for the 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2024 and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE.

The information required by this item will be included under the captions “Board of Directors and Corporate Governance” and “Certain Relationships and Related Party Transactions” in our Proxy Statement for the 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2024 and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES.

The information required by this item will be included under the caption “Proposal Two: Ratification of Appointment of Independent Registered Public Accounting Firm” in our Proxy Statement for the 2025 Annual Meeting of Stockholders to be filed with the SEC within 120 days of the year ended December 31, 2024 and is incorporated herein by reference.

PART IV
ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES.

The following documents are filed as part of this report:

1. *Financial Statements.* The financial statements included in “Index to the Consolidated Financial Statements” in Part II, Item 8 are filed as part of this Form 10-K.
2. *Financial Statement Schedules.* None.
3. *Exhibits.* Exhibits listed in the accompanying index to exhibits are filed or incorporated by reference as part of this Form 10-K.

EXHIBIT INDEX

Exhibit Number	Description	Incorporation by Reference			Filed Herewith
		Form	File Number	Exhibit/Appendix Reference	
2.1*	<u>Agreement and Plan of Merger, dated as of August 24, 2020, by and among Gores Metropoulos, Inc., Dawn Merger Sub, Inc., Dawn Merger Sub II, LLC, and the Company.</u>	8-K/A	001-38791	2.1	12/8/20
3.1	<u>Second Amended and Restated Certificate of Incorporation of the Company.</u>	8-K/A	001-38791	3.1	12/8/20
3.2	<u>Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of the Company.</u>	10-K	001-38791	3.2	02/28/24
3.3	<u>Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of the Company.</u>	8-K	001-38791	3.1	11/22/24
3.4	<u>Amended and Restated By-Laws of the Company (as amended on August 28, 2024).</u>	8-K	001-38791	3.1	08/30/24
4.1	<u>Specimen Class A Common Stock Certificate.</u>	8-K/A	001-38791	4.1	12/8/20
4.2	<u>Warrant Agreement, dated January 31, 2019, between Continental Stock Transfer & Trust Company and Gores Metropoulos, Inc.</u>	8-K/A	001-38791	4.2	12/8/20
4.3	<u>Specimen Warrant Certificate.</u>	8-K/A	001-38791	4.3	12/8/20
4.4	<u>Description of Securities.</u>				X
4.5	<u>Indenture, dated as of December 17, 2021, by and between the Company and U.S. Bank National Association, as trustee (1.25% Convertible Senior Notes due 2026).</u>	8-K	001-38791	4.1	12/17/21
4.6	<u>Amended Warrant Agreement, dated January 11, 2022, by and among the Company, Continental Stock Transfer & Trust Company, and American Stock Transfer & Trust Company.</u>	10-K	001-38791	4.7	03/1/22
4.7	<u>First Lien Indenture, dated August 8, 2024, by and between the Company and GLAS Trust Company LLC, as trustee (Floating Rate Senior Secured Notes due 2028).</u>	10-Q	001-38791	4.1	08/8/24
4.8	<u>Second Lien Indenture, dated August 8, 2024, by and between the Company and GLAS Trust Company LLC, as trustee (9.0% Convertible Second Lien Senior Secured Notes due 2030 and 11.5% Convertible Second Lien Senior Secured Notes due 2030).</u>	10-Q	001-38791	4.2	08/8/24

10.1	<u>Amended and Restated Registration Rights Agreement, dated as of December 2, 2020, by and among the Company, Gores Metropoulos Sponsor LLC and certain other parties.</u>	8-K/A	001-38791	10.1	12/8/20
10.2	<u>Form of Indemnification Agreement.</u>	8-K/A	001-38791	10.5	12/8/20
10.3	<u>Financing Agreement, dated as of February 28, 2023, between the Company and Virtu Americas LLC.</u>	10-K	001-38791	10.4	02/28/23
10.4†	<u>Luminar Technologies, Inc. Management Longer Term Equity Incentive Plan.</u>	8-K/A	001-38791	10.6	12/8/20
10.5†	<u>Luminar Technologies, Inc. Amended and Restated 2020 Equity Incentive Plan.</u>	DEF14A	001-38791	B	04/25/24
10.6†	<u>Luminar Technologies, Inc. 2020 Employee Stock Purchase Plan.</u>	8-K/A	001-38791	10.8	12/8/20
10.7†	<u>Luminar Technologies, Inc. Amended and Restated 2015 Stock Plan.</u>	8-K/A	001-38791	10.9	12/8/20
10.8	<u>Voting Agreement, dated August 24, 2020, by and between Luminar Technologies, Inc. (f/k/a Gores Metropoulos, Inc.) and Austin Russell.</u>	S-4/A	333-24878	Annex G	10/23/20
10.9†	<u>Offer Letter by and between Luminar Technologies, Inc. and Thomas J. Fennimore dated April 3, 2020.</u>	S-1/A	333-251657	10.13	01/13/21
10.10†	<u>Luminar Technologies, Inc. Amended and Restated Director Compensation Policy.</u>	10-Q	001-38791	10.1	11/9/23
10.11	<u>Framework Purchase Agreement, dated March 23, 2020 by and between Volvo Car Corporation and the Company.</u>	S-4/A	333-248794	10.8	10/23/20
10.12	<u>Amendment No. 1 to Framework Purchase Agreement, dated June 24, 2021, by and between Volvo Car Corporation and the Company.</u>	10-Q	001-38791	10.1	08/13/21
10.13†	<u>Amended and Restated Offer Letter by and between the Company and Alan Prescott dated November 11, 2021.</u>	10-Q	001-38791	10.1	11/15/21
10.14†	<u>Luminar Technologies, Inc. Executive Incentive Bonus Plan.</u>	8-K	001-38791	10.1	06/9/23
10.15	<u>Lease Agreement, dated February 15, 2018, by and between 2603 Discovery Lakes LLC and the Company.</u>	S-4/A	333-248794	10.9	10/23/20
10.16†	<u>Executive Compensation Letter Agreement, dated November 7, 2023, between Thomas Fennimore and the Company.</u>	10-K	001-38791	10.18	02/28/24
10.17†	<u>Executive Compensation Letter Agreement, dated November 7, 2023, between Alan Prescott and the Company.</u>	10-K	001-38791	10.19	02/28/24
10.18	<u>Non-Recourse Loan and Securities Pledge Agreement, dated as of February 23, 2024, by and between The St. James Bank & Trust Company Ltd. and the Company.</u>	10-K	001-38791	10.20	02/28/24
10.19	<u>Non-Recourse Loan and Securities Pledge Agreement, dated as of February 23, 2024, by and between The St. James Bank & Trust Company Ltd. and the Company.</u>	10-K	001-38791	10.21	02/28/24

10.20	<u>Financing Agreement, dated May 3, 2024, by and between the Company and Virtu Americas LLC.</u>	S-3ASR	33-279118	1.3	05/3/24	
10.21	<u>Form of Exchange Agreement, dated August 6, 2024, by and between the Company and the Holders.</u>	10-Q	001-38791	10.3	08/8/24	
10.22	<u>Form of Purchase Agreement, dated August 6, 2024, by and between the Company and the Purchasers.</u>	10-Q	001-38791	10.4	08/8/24	
10.23†	<u>Transition and Separation Agreement, dated December 12, 2024, between Alan Prescott and the Company.</u>					X
10.24†	<u>Amendment to Executive Compensation Letter Agreement, dated March 27, 2025, between Tom Fennimore and the Company.</u>					X
19.1	<u>Luminar Technologies, Inc. Insider Trading Policy</u>					X
21.1	<u>List of Subsidiaries.</u>					X
23.1	<u>Consent of Deloitte & Touche LLP.</u>					X
24.1	<u>Power of Attorney (included on signature page).</u>					X
31.1	<u>Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15(d)-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>					X
31.2	<u>Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15(d)-14(a) under the Securities Exchange Act of 1934, as adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>					X
32.1	<u>Certification of Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>					Furnished herewith
97.1	<u>Luminar Technologies, Inc. Compensation Recovery Policy.</u>	10-K	001-38791	97.1	02/28/24	
101.INS	<u>XBRL Instance Document.</u>					X
101.SCH	<u>XBRL Taxonomy Extension Schema Document.</u>					X
101.CAL	<u>XBRL Taxonomy Extension Calculation Linkbase Document.</u>					X
101.DEF	<u>XBRL Taxonomy Extension Definition Linkbase Document.</u>					X
101.LAB	<u>XBRL Taxonomy Extension Label Linkbase Document.</u>					X
101.PRE	<u>XBRL Taxonomy Extension Presentation Linkbase Document.</u>					X
104	<u>Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).</u>					X

* The schedules to this Exhibit have been omitted in accordance with Regulation S-K Item 601(b)(2). The Company agrees to furnish supplementally a copy of any omitted schedule to the Securities and Exchange Commission upon its request.

† Indicates a management contract or compensatory plan, contract or arrangement.

ITEM 16. FORM 10-K SUMMARY.

None provided.

SIGNATURES.

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Luminar Technologies, Inc.

Date: March 28, 2025

By: /s/ Thomas J. Fennimore

Thomas J. Fennimore

Chief Financial Officer

(Principal Financial and Accounting Officer)

POWER OF ATTORNEY.

KNOW ALL PERSONS BY THESE PRESENTS that each individual whose signature appears below constitutes and appoints Austin Russell and Thomas J. Fennimore, and each of them, severally, as his or her true and lawful attorneys-in-fact and agents with the power to act, with or without the other, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in his or her capacity as a director or officer or both, as the case may be, of the Company, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that each of said attorneys-in-fact and agents, or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Austin Russell Austin Russell	President, Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer)	March 28, 2025
/s/ Thomas J. Fennimore Thomas J. Fennimore	Chief Financial Officer (Principal Financial and Accounting Officer)	March 28, 2025
/s/ Alec E. Gores Alec E. Gores	Director	March 28, 2025
/s/ Jun Hong Heng Jun Hong Heng	Director	March 28, 2025
/s/ Mary Lou Jepsen, PhD Mary Lou Jepsen, PhD	Director	March 28, 2025
/s/ Shaun Maguire, PhD Shaun Maguire, PhD	Director	March 28, 2025
/s/ Katharine A. Martin Katharine A. Martin	Director	March 28, 2025
/s/ Dominick Schiano Dominick Schiano	Director	March 28, 2025
/s/ Matthew J. Simoncini Matthew J. Simoncini	Director	March 28, 2025
/s/ Daniel D. Tempesta Daniel D. Tempesta	Director	March 28, 2025



Executive Officers

Paul Ricci
Chief Executive Officer

Thomas J. Fennimore
Chief Financial Officer

Board of Directors

Paul Ricci
Chief Executive Officer and Director

Alec E. Gores
Chairman and Chief Executive Officer at The Gores Group

Mary Lou Jepsen, PhD
Chief Executive Officer at Openwater; Chairperson of the Nominating & ESG Committee and Member of the Compensation & Human Capital Management Committee

Shaun Maguire, PhD
General Partner at Sequoia Capital; Member of the Nominating & ESG Committee

Katharine A. Martin
Partner at Wilson Sonsini Goodrich & Rosati; Chairperson of the Compensation & Human Capital Management Committee and Member of the Nominating & ESG Committee

Austin Russell
Founder and Director

Dominick Schiano
President and Co-Founding Partner at Evergreen Capital Partners; Member of the Audit Committee

Matthew J. Simoncini
Member of the Audit Committee and Member of the Compensation & Human Capital Management Committee

Daniel D. Tempesta
Chairperson of the Audit Committee