

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 June 30, 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 000-27548

LIGHTPATH TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

86-0708398

(I.R.S. Employer Identification No)

2603 Challenger Tech Court, Suite 100
Orlando, FLorida 32826

(Address of principal executive offices, including zip code)

(407) 382-4003

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Class A Common Stock, par value \$0.01	LPTH	The Nasdaq Stock Market, LLC

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

Series D Participating Preferred Stock Purchase Rights
(Title of Class)

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 and 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, non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer", "non-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"/>
		Emerging growth company	<input 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.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 in the Exchange Act). YES NO

The aggregate market value of the registrant's voting stock held by non-affiliates (based on the closing sale price of the registrant's Class A Common Stock on The NASDAQ Capital Market) was approximately \$46,771,150 as of December 31, 2023.

LightPath Technologies, Inc.
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CAUTIONARY NOTE CONCERNING FORWARD-LOOKING STATEMENTS

Certain statements and information in this Annual Report on Form 10-K may constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, without limitation, statements concerning plans, opinions, expectations, beliefs, objectives, assumptions or projections regarding future events or future results and underlying assumptions and other statements, which are not statements of historical facts. In some cases, you can identify forward-looking statements by terminology such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “potential,” or “continue,” or other comparable terminology. These forward-looking statements are based largely on our current expectations and assumptions and are subject to a number of risks and uncertainties, many of which are beyond our control. While management believes that these forward-looking statements are reasonable as and when made, there can be no assurance that future developments affecting us will be those that we anticipate. Forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause our actual results, performance, or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Forward-looking statements represent management’s beliefs and assumptions only as of the date of this Annual Report on Form 10-K. You should read this Annual Report on Form 10-K completely and with the understanding that our actual future results may be materially different from what we expect. Except as required by law, we assume no obligation to update these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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Item 1. Business.**General*****Our Company***

LightPath Technologies, Inc. (“LightPath”, the “Company”, “we”, “our”, or “us”) was incorporated under Delaware law in 1992 as the successor to LightPath Technologies Limited Partnership, a New Mexico limited partnership formed in 1989, and its predecessor, Integrated Solar Technologies Corporation, a New Mexico corporation formed in 1985. Today, LightPath is a global company with facilities in the United States, the People’s Republic of China and the Republic of Latvia. Our corporate headquarters is located in Orlando, Florida.

Historically, we operated with a focus on optical component manufacturing, and specifically on our leadership position as a precision molded lens manufacturer for visual light applications. While still positioned as a component provider, we expanded our addressable market with the acquisition of ISP, a manufacturer of infrared optical components, in December 2016.

Subsidiaries***LPOI and LPOIZ***

In November 2005, we formed LightPath Optical Instrumentation (Shanghai) Co., Ltd (“LPOI”), a wholly-owned subsidiary, located in Jiading, People’s Republic of China, which was primarily engaged in sales and support functions.

In December 2013, we formed LightPath Optical Instrumentation (Zhenjiang) Co., Ltd. (“LPOIZ”), a wholly-owned subsidiary located in the New City district, of the Jiangsu province, of the People’s Republic of China. LPOIZ’s manufacturing facility (the “Zhenjiang Facility”) serves as our manufacturing facility in China and provides a lower cost structure for production of larger volumes of optical components and assemblies. Effective February 28, 2023, the legal entities of LPOI and LPOIZ were merged, with LPOIZ as the surviving company and the operations of the two companies were merged.

ISP and ISP Latvia

In December 2016, we acquired ISP Optics Corporation, a New York corporation (“ISP”), and its wholly-owned subsidiary, ISP Optics Latvia, SIA, a limited liability company founded in 1998 under the Laws of the Republic of Latvia (“ISP Latvia”). ISP is a vertically integrated manufacturer offering a full range of infrared products from custom infrared optical elements to catalog and high-performance lens assemblies. ISP’s manufacturing operation is located at our corporate headquarters facility in Orlando, Florida (the “Orlando Facility”). ISP Latvia is a manufacturer of high precision optics and offers a full range of infrared products, including catalog and custom infrared optics. ISP Latvia’s manufacturing facility is located in Riga, Latvia (the “Riga Facility”).

[Table of Contents](#)***Visimid***

In July 2023, we acquired Liebert Consulting, LLC, dba Visimid Technologies (“Visimid”), an engineering and design firm, specializing in thermal imaging, night vision and internet of things (“IOT”) applications. Visimid provides design and consulting services for U.S. Department of Defense (“DoD”) contractors, commercial and industrial customers, and original equipment manufacturers (“OEMs”) for original new products. Visimid’s core competency is developing and producing custom thermal and night vision cores. Visimid’s facility is located in Plano, Texas.

Industry

We and our customers support a wide range of industries, including automotive, telecommunications, defense, medical, bio-technology, industrial, consumer goods and more. A commonality among these industries is the use of photonics as an enabling technology in their products.

Over the last ten years we have witnessed a pivotal shift in the adoption of photonics in new applications. In the early days of the photonics industry the technology was a specialty, which was both expensive and required highly specialized technical knowledge, leading to low adoption of the technology into industries other than defense and high-end medical applications. Starting with the commercialization of fiber optic communication, and further driven by significant cost reduction in key technologies such as sensors and lasers, the adoption of the technology into more industries and applications began rapidly growing.

The accelerated rate of adoption and highly diversified industries and applications utilizing an expanding array of photonics technologies brought a change in both the needs of the customers and the supply chain, to support those needs. In the past, we and other component suppliers mostly served customers that specialized in photonics. The large OEMs focused on component companies as a significant supply source for optical parts and minor fabrication and assemblies. OEMs typically produced their own designs and relied on their suppliers to fulfill their needs without any strategic product planning, investment or collaboration. This supply chain was fragmented and consisted of a large number of small companies, many of which had particular specialties in the fabrication process. Often times these types of activities are referred to as build-to-print, as the OEM customer would design the lens down to the final manufacturing prints and the vendor would focus on producing according to those prints.

As the industry has evolved and sensory, visualization and imaging capabilities have become differentiators among suppliers and a necessity for delivery of an expanding array of products in a myriad of industries where the specialized requirements of customers are no longer being adequately addressed. As photonics technology continues to develop, leading to broader adaptation and application across more industries, and with customers now possessing expertise in different technologies, customers’ supply chain needs have evolved. In our case, the change has created opportunities to now serve OEM customers for which photonics is only one of several technologies they embed into their products. While in the past our typical customer viewed optics as their specialty and hence they designed all aspects of their systems and outsourced only the component fabrication, this is not the case with our newer customers. Many of our current and potential customers do not wish or do not have the capability to design and build the optical portion of their products

in-house. As such, the fragmented supply chain that existed in our industry in order to serve customers on the component level, is not relevant for customers that view optics as only a part of their system, and not a core capability or function. For these customers, LightPath is well positioned to become their solutions partner for their optics needs. By tapping into the domain knowledge and design, assembly and testing capabilities of solutions providers like LightPath, the customer can avoid making the large investment needed for them to develop those capabilities in-house. We refer to this ecosystem as “optical engineered solutions,” and believe we are positioned to serve as a single source, global provider of optical solutions with leading engineering and manufacturing capabilities. This has led to our development of a new strategy and organizational alignment which is further discussed below.

Growth Strategy

Since our Chief Executive Officer, Mr. Sam Rubin, joined the Company in 2020, we have been developing a new strategy that will transition the Company from a pure component manufacturer to a supplier of imaging subsystems and systems. Our new strategic direction, which is based on our core technological differentiators such as our BlackDiamond glass (“BlackDiamond”) and proprietary molding technologies, significantly increases our value add to customers. This transition, which is occurring both organically and through acquisitions, such as the July 2023 acquisition of Visimid Technologies, is positioning the Company for significant growth and higher profitability in coming years.

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Understanding the shifts that are happening in the marketplace and the changes that come when a technology, like photonics, moves from being a specialty to being integrated into mainstream industries and applications, we redefined our strategic direction to provide our wide customer base with domain expertise in optics, and became their partner for the optical engine of their systems. In our view, as the use of photonics evolves, so do customer needs. The industry is transforming from a fragmented industry with a component oriented supply chain, into a solution-focused industry with the potential for partnerships for solution development and production. Over the last couple of years we have worked to align our organization to this strategy, and leverage our in-house domain expertise in photonics, knowledge and experience in advanced optical technologies, and the necessary manufacturing techniques and capabilities. We have been developing these partnerships by working closely with our customers throughout their design process, designing optical solutions that are tailored to their needs, often times using unique technologies that we own, and supplying the customer with a complete optical subsystem to be integrated into their product. Such an approach builds on our unique, value-added technologies that we currently own, such as infrared materials, optical molding, fabrication, system design, and proprietary manufacturing technologies, along with technologies that we acquired through the Visimid acquisition such as video processing, infrared camera integration and more. Continually adding differentiating technologies is key to our strategy and we expect to continue to do so both organically and through acquisitions.

Examples of this strategic approach can be found in many of our recent new product lines. We refer to these as LightPath 2.0 and 3.0, as that symbolizes the evolution of the Company. LightPath 2.0 refers to our assemblies and LightPath 3.0 refers to our cameras and related subsystems and systems. Our Mantis camera represents an innovation in imaging in both mid wave and long wave simultaneously, something made possible by our exclusive BlackDiamond materials licensed from the U.S. Naval Research Laboratories (the “NRL”), and which has opened the door into markets such as fire detection and industrial furnace and boiler inspection. The camera system we are developing as a sub system for Lockheed Martin is based on a unique and proprietary imaging technology. There are many other exciting new products and projects currently in development and various stages of testing, all based similarly on key differentiating technologies that we are leveraging to transition from a component company to a solution provider.

The shift in strategy and product offerings also shifts the price range of our product portfolio and indirectly drives growth in and of itself. Historically, as a pure component Company, the average selling prices (“ASPs”) of those products were measured in single dollars or tens of dollars, whereas with the development of our assemblies product line (i.e. LightPath 2.0), ASPs for those products are measured in hundreds of dollars. When we added cameras, subsystems and systems (LightPath 3.0), ASPs for those products are measured in thousands of dollars, and as much as \$30,000 for our most advanced and recent version of the Mantis camera. We expect this shift to start favorably impacting our financial results in future periods.

Organizational Alignment

Along with the development of a new strategic direction, we are focused on the execution of a complementary strategic plan. To execute our new strategic plan, we also need, among other things, a strong manufacturing and technical organization that provides the domain expertise in photonics from the design of an optical engineered solution tailored for the customer’s needs through the manufacturing, assembly and testing of such a sub-system. Given the fast pace of advancements in photonics technologies, achieving a sustainable advantage will also depend on having unique capabilities and technologies that allow our team to design and deliver the tailored solutions demanded by customers. To support those goals, we are pursuing several organization-wide efforts, including standardizing and optimizing our processes and systems, taking steps to realigning our organizational structure, such as breaking down our single combined engineering group into the separate engineering functions that are a part of and better support operations, and creating a new product development group that focuses on developing capabilities and technologies that allow us to design and deliver better solutions. By having a small, focused new product development group, we are able to develop unique technologies that allow us to design solutions that we believe are better than what is currently offered by other suppliers. Such unique technologies include developing tailored and optimized optical coatings, and advanced fabrication techniques such as freeform optical components, custom materials not available elsewhere, and cutting edge optical design capabilities.

During fiscal year 2024, we took several important steps to align the organization to our new strategic direction. Those steps include expanding the footprint of our manufacturing operations in Orlando and consolidating those operations previously in two separate buildings into a single building. With this facility consolidation, we brought together certain operational functions of ISP and LightPath, which had remained separate since the acquisition of ISP in fiscal year 2017. We also right-sized our China operation by consolidating two buildings in Zhenjiang into one and closed a sales office in Shanghai. All of those, coupled with right-sizing the relevant parts of the organization have aligned our structure, systems and organization to our strategic direction and set the stage for significant future growth in the U.S. and Europe.

In the longer term, we have identified capabilities and technologies that could be important differentiators, including, for example, optical detectors and active optical components such as lasers, motion systems, and more. The aggregation of such unique technologies is intended to allow us to differentiate our optical solutions and provide customers with products that are tailored exactly to their needs.

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Technologies

We believe that to be the preferred partner to fulfill the photonics needs of our customers, domain expertise and differentiating technologies in photonics are key elements. Optics and photonics require multidisciplinary skills, including physics, mechanical engineering, material sciences, electrical engineering, and chemistry, among others. This is part of what makes using photonics so complicated, and at the same time part of what we see as the opportunity. Knowing what can and cannot be produced, designing the architecture and detailed design of the optical system, including electrical and mechanical interfaces, choosing and executing advanced manufacturing technologies, and delivering both the engineering prototypes that are needed, as well as producing a high volume of goods for the long-term, are all part of the domain expertise required. Additionally, to design the best solution for a customer, we not only need to know what can be produced and how to design it, we also must have unique capabilities that differentiate our solutions. Such technologies allow us to develop solutions and sub systems that outperform other solutions in size, weight, power, and cost.

Along those lines, we continue to focus on developing, acquiring and licensing new, innovative capabilities and technologies in all of our engineering and manufacturing groups, including systems design and testing, optical fabrication of components, material production, optical coatings, and electro mechanical design and production such as the following:

Infrared Imaging Technologies. Our optical solutions strategy focuses around infrared imaging. Infrared imaging is a growing market, with technology that is evolving at a fast rate, and in which we have distinct advantages, based on our core technologies. Maintaining a technical leadership in infrared imaging and continually evolving and developing our technologies is key to maintaining, and to continue building and developing, a technical leadership, which translates to better products. While the basis to our infrared technology originally centered around infrared materials and optics, it has become more than that. As we evolve from a pure optics company to an integrator and solution provider, our differentiating technologies are evolving. Those differentiating technologies are often times on a system or application level, rather than at the component or material level. Some of those technologies are gained through acquisitions, such as Visimid, and some through organic growth and investment in internally funded R&D. Recent examples of such system level capabilities include our development of a novel, unique approach to shutterless imaging that we can apply to any microbolometer, development of a technology for early detection of flames and fires using a combination of optical technologies and sophisticated image processing algorithms, and, most recently, our integration of AI accelerator hardware directly into the video pipeline of our cameras. This allows customers to easily implement AI trained models directly into the video pipeline without the need for a GPU with a high power consumption, and without the need for much programming expertise.

Optical Assemblies and Testing. As a company moving from optical components to solutions, doing more optical assemblies was a natural first step for us. During the first couple of years of implementing our new strategic direction, our team expanded our optical assemblies business and capabilities considerably. As our reputation in this segment grew, so did the level of complexity of assemblies and sub systems customers request of us. This trend was recently amplified when we began making available our new, exclusive infrared glass materials, which enable customers to design systems that far exceed the performance of existing systems using conventional materials. Often, the new systems requested by customers require us to develop new assembly and testing capabilities. Each such new capability and technique we develop for such projects become another capability and technique we can market and offer to other customers. We expect this will create self-perpetuating development opportunities as our new capabilities and techniques bring in more business that may, again, require continuing development of new techniques.

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Materials. Materials play an important role in providing design flexibility and allow tradeoffs between optical performance, weight, and performance in varying conditions. Traditionally, infrared applications have only a small number of materials, all of which are crystal based, with Germanium being the most commonly used material. Over the last few years LightPath has been investing in developing and commercializing our BlackDiamond glasses (which are labeled with a “BD” prefix) as alternatives to using Germanium. BD2, our first glass, has been in production for nearly 15 years. BD6, our second glass, and our flagship material, is produced in volume and fielded in multiple products, both commercial and defense related. Additionally, in December 2021 we received an exclusive license from the U.S. government for the Chalcogenide materials that have been developed by the NRL. Following a two-year effort to transition those new materials into production, we began making available for commercial use some of those new materials, starting with the introduction of BDNL-4 in April 2024. Our BlackDiamond materials offer multiple advantages over materials, such as Germanium, that have been traditionally used up until now. Germanium is a key material used in infrared optics. It is estimated that over 67% of the global Germanium supply originates out of China, with Russia being the second largest supplier. Those two countries together control over 90% of the supply of Germanium and Gallium, two critical materials in infrared optics. At the start of the war in Ukraine, all purchases of Germanium from vendors in Russia ceased and the Company has been purchasing Germanium only from vendors in China. In July 2023, China announced export restrictions on those two materials. Those export restrictions have significantly impacted the cost and supply of those materials in the west, with the cost increasing by more than 60%, as of June 2024. Our BlackDiamond materials, which are made in the USA and produced from raw ingredients available from many countries all over the globe, offer an alternative to the use of Germanium in infrared systems. Knowing that our materials are produced domestically and have a secure supply chain has been driving sales growth in our business and in particular in the defense sector. In addition to providing an alternative to the use of Germanium, the new materials we licensed exclusively from the NRL have unique technical advantages compared to traditional materials. One of those advantages is multispectral performance, meaning the glass can be used as an optical material in two or more wavebands in the infrared. While conventionally infrared materials have been used in one band (Silicon used in mid wave band, Germanium in long wave band, etc.), our new BlackDiamond materials cover a very wide range of wavelengths, including all three infrared bands (short wave, mid wave and long wave) and some of the materials also work in the near infrared and even in part of the visible light band. This in turn enables the development of true multispectral systems, ones in which one camera will be able to image in more than one waveband simultaneously. The implications for this are very significant in the defense world, but also in the industrial world where, for example, a large range of temperatures to be measured translates to a need to image in both mid wave and long wave. This is well within the capabilities of our Mantis camera because of its multispectral glass. The second significant advantage our BlackDiamond materials have is their performance is less affected by changes in environmental temperature. Similar to the way materials contract in low temperatures or expand in warm temperatures, the optical properties also change with temperature. Specifically, the refractive index changes with temperature, which is called a thermo-optic coefficient. A material such as Germanium has a high thermo optic coefficient of 400 ppm per change of one degree Celsius. This means that when the temperature changes by 10 degrees, as an example, the lens loses focus and needs to be refocused. Our BlackDiamond materials are carefully engineered to have very low thermo-optic coefficients, so that their optical power (refractive index) almost does not change when the ambient temperature changes. Some materials such as BDNL-4 have a negative thermo optic coefficient,

acting as a natural compensator when the temperature changes. Other materials such as BDNL-8 have a thermo optic coefficient that is so close to zero, the standard test equipment cannot even measure it! The combination of providing an alternative to the use of Germanium and Gallium, together with distinct technological advantages, make these materials which we own exclusively, a very desirable and key element in every future infrared system. As described above in *Growth Strategy*, we take these unique advantages and leverage them to become not only the supplier of choice, but also to be producer of the subsystems and complete imaging solutions, a much larger part of the system than we previously had as a component manufacturer. The importance of those materials, both from a supply chain liability perspective as well as from a technology leadership perspective has led to some significant collaborations and efforts together with various governmental groups, and in particular with the U.S. DoD. As announced on several separate occasions, LightPath has received funded development contracts from the U.S. DoD, the Defense Logistics Agency, the European Space Agency, and the U.S. Army, among others. Those fundings are all aimed at accelerating the qualification of the materials for use in their respective applications. We continue to develop those technical capabilities and materials, both using internal funding and federal funding. We expect infrared materials to continue to be an important technology in our portfolio

- **High precision molded lenses.** Historically, precision molding of lenses is the key technology we have built upon. Precision molding of optics is a unique technology that is well suited for both high volume production of optical components, as well as production of optics with unique shapes, which otherwise would require a very lengthy and complex process to individually polish each lens to shape. Precision molded optics (“PMOs”) is a technology in which we continuously invest to pursue advancements in what materials can be molded and the shapes and sizes of the optics we can mold. Although there are several other competitors that can mold optical elements, we have an established leadership position in this area as the original developer of the technology, and we believe we are the preferred vendor for the most complex, high-end projects of many of our customers. Some recent advancements we have made in precision molded optics include molding of non-symmetric shapes such as freeform optical components, and qualifying new materials for availability as moldable materials.

- **Traditional polishing and diamond turned optics.** Our capabilities include a wide range of traditional fabrication processes. These include CNC (computer numerical control) grinding and polishing of optical elements, traditional grinding and polishing of lenses, and diamond turning of infrared materials.

- **Optical coatings.** Thin film coatings are designed to reduce losses and protect the optical material, which are a key part of any optical system. Through our recent investments, we have the ability to coat lenses in all of our facilities, providing efficient, high quality antireflective coatings, as well as reflective and protective coatings. Our coating facilities employ both physical vapor deposition techniques as well as chemical vapor deposition techniques. In addition to our library of dozens of standard coatings, our coating engineers often design coatings specific for an application, optimizing the performance of the system for a specific customer use. One of our most known advanced coatings is Diamond Like Carbon, which provides materials such as chalcogenide glass significant environmental protection. This coating is currently available only at a small number of vendors, and is an example of a capability that we believe gives us a competitive advantage by allowing us to design better optical solutions.

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New Product Development

Consistent with our strategic plan, we have focused our development efforts in fiscal years 2023 and 2024 on products, technologies and capabilities that allow us to provide better solutions using the most optimal technology for each customer and with alignment to customer product lifecycle. Different from years past, in 2024 most of our development efforts were either directly funded by customers, or largely overlapped with programs already being funded by customers. Such funding sometimes takes place as direct funding, such as through the Defense Logistics Agency or other governmental awards to support development of specific technology of interest, or funding for product development that also generates intellectual property and know-how. In 2024, much of our development efforts were directed around camera technology. We have been developing new versions of existing cameras such as a version of our Mantis, including one which is used for furnace inspection and a version for long range detection, among others. We also developed new camera products while working closely with Maris-Tech in Israel to integrate an AI accelerator hardware into our camera pipeline. This AI accelerator made by Hailo (also in Israel), will enable our customers to easily deploy their own flavor of AI directly in the camera (true edge implementation, which we named EdgeIR).

In parallel to these new technologies we continue to invest in our core, classic technologies of materials and optical fabrication. In 2024, we formally announced availability of the first of our new materials licensed from the NRL, BDNL-4. BDNL-4 is unique because it has a negative thermo-optic coefficient, an attribute that is key in a-thermalization of optical systems. These new materials have already landed us a new, exclusive new project for an airborne system, which, like the Lockheed Martin project, has the potential of leading to recurring annual revenue of \$10 million or greater.

We generally rely on trade secret protection for technology we develop, but do pursue patents for certain of such technology. In many cases the benefits of patent protection is offset by the requirement to disclose in detail the processes, and so we intend to apply for a patent only the case when we believe the patent is enforceable and does not compromise our trade secrets and intellectual properties developed over three decades.

We incurred expenditures for new product development of approximately \$2.4 million and \$2.1 million during fiscal years 2024 and 2023, respectively.

In some cases, our product and technology development is supported through billing of engineering services, such as non-recurring engineering (“NRE”) fees. In other cases, we receive external funding, such as our previously announced funding from Space Florida’s Space Foundation and Israel’s Ministry of Science, and the U.S. DoD (via the Defense Logistics Agency). Our efforts are self-funded in all other cases.

As part of our product development and research and development efforts, we have numerous employees with engineering and related advanced degrees located in our facilities in the U.S., China and Latvia. Our facilities in Orlando, Florida, Plano, Texas, and Zhenjiang, China are located in or near industrial technology campuses with substantial access to optical industry constituencies, including a major university. This enables us and our staff to remain on the cutting edge of industry design trends and to enter into collaborative engagements.

Product Groups and Markets

Overview

We previously organized our products in three groups: precision molded optics (“PMO”), infrared, and specialty products. Revenues from product development agreements for engineering services were included in specialty products. With our strategic transition into more value-added solutions, and the addition of Visimid in July 2023, we reorganized our products into four product groups: infrared components, visible components, assemblies and modules, and engineering services. Assemblies and modules were previously included in PMO, infrared or specialty products, depending on the lens type.

Infrared Components Product Group. Our infrared product group is comprised of both molded and turned infrared lenses and assemblies using a variety of infrared glass materials. This product group also includes both conventional and CNC ground and polished lenses. Advances in chalcogenide materials have enabled compression molding for mid-wave (“MWIR”) and long-wave (“LWIR”) optics in a process similar to precision molded lenses. Our molded infrared optics technology enables high performance, cost-effective infrared aspheric lenses that do not rely on traditional diamond turning or lengthy polishing methods. Utilizing precision molded aspheric optics significantly reduces the number of lenses required for typical thermal imaging systems and the cost to manufacture these lenses. Molding is an excellent alternative to traditional lens processing methods particularly where volume and repeatability is required.

We offer germanium, silicon or zinc selenide aspheres and spherical lenses, which are manufactured by diamond turning. This manufacturing technique allows us to offer larger lens sizes and the ability to use other optical materials that cannot be effectively molded. Our numerous manufacturing capabilities allow us to meet complex optical challenges that demand more exotic optical substrate materials that are non-moldable, as well as larger size optics.

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We also have the ability to manufacture chalcogenide glass from which we produce infrared lenses. We developed this glass and melt it internally to produce our BlackDiamond glass, which has been trademarked, and is marketed as BD6. Historically, the majority of our thermal imaging products have been germanium-based, which is subject to market pricing and availability. BD6 offers a lower-cost alternative to germanium, which we expect will benefit the cost structure of some of our current infrared products and allow us to expand our product offerings in response to the markets’ increasing requirement for low-cost infrared optics applications. During fiscal year 2024, we also formally announced availability of the first of our new materials licensed from the NRL, BDNL-4. BDNL-4 is unique because it has a negative thermo-optic coefficient, an attribute that is key in a-thermalization of optical systems.

We have the capability to manufacture lenses from very small (with diameters of sub-millimeter) to over 300 millimeters, and with focal lengths from approximately 0.4 millimeters to over 2000 millimeters, utilizing our various manufacturing methods. In addition, we offer both catalog and custom designed infrared optics.

Overall, we anticipate moderate growth for our infrared components, particularly as our germanium alternatives continue to be adopted into new applications and designs. This product group also supports our assemblies and modules product group.

Visible Components Product Group. Aspheric lenses are known for their optimal performance. Aspheric lenses simplify and shrink optical systems by replacing several conventional lenses. However, aspheric lenses can be difficult and costly to machine. Our glass molding technology enables the production of both low and high volumes of aspheric optics, while still maintaining the highest quality at an affordable price. Molding is the most consistent and economical way to produce aspheres and we have perfected this method to offer the most precise molded aspheric lenses available.

Assemblies and Modules Product Group. Our assemblies and modules product group is comprised of other value-added products, including both infrared and visible components, such as mounted lenses, optical assemblies, collimator assemblies, and other custom specialty optics. Collimator assemblies are utilized in applications involving light detection and ranging (“LIDAR”) technology for advanced driver assistance systems and autonomous vehicles, such as forklifts and other automated warehouse equipment. This continues to be an emerging market with long-term growth potential for us. We also expect growth from medical programs and commercial optical sub-assemblies. We design, build, and sell optical assemblies in markets for test and measurement, medical devices, military, industrial, and communications based on our proprietary technologies.

Infrared systems, which include thermal imaging cameras, temperature sensing, gas sensing devices, spectrometers, night vision systems, automotive driver awareness systems, such as blind spot detection, thermal weapon sights, and infrared counter measure systems, is an area that is growing rapidly and we are selling products that are utilized in a number of these applications. As infrared imaging systems become widely available, market demand will increase as the cost of components decreases. Our aspheric molding process is an enabling technology for the cost reduction and commercialization of infrared imaging systems utilizing smaller lenses because the aspheric shape of our lenses enables system designers to reduce the lens element in a system and provide similar performance at a lower cost. In addition, there is a trend toward utilizing smaller size sensors in these devices which require smaller size lenses and that fits well with our molding technology. Many of our optical assemblies consist of several products that we manufacture.

Engineering Services Product Group. We develop products pursuant to development agreements that we enter into with customers. Typically, customers approach us and request that we develop new products or applications utilizing our existing products to fit their particular needs or specifications. The purpose of those engineering services that we offer is not only to provide purely engineering services for a customer, but also to engineer new products which we later manufacture for the customer. The timing and extent of any such product development requests are unpredictable and outside of our control.

Sales and Marketing

Marketing. Extensive product diversity and varying levels of product maturity characterize the optics industry. Product verticals range from consumer (e.g., AR/VR headset, cameras, cell phones, gaming devices, and copiers) to industrial (e.g., lasers, data storage, and infrared imaging), from products where the lenses are the central feature (e.g., telescopes, microscopes, and lens systems) to products incorporating lens components (e.g., 3D printing, machine vision, LIDAR, robotics and semiconductor production equipment) and communications (e.g., fiber, 5G and satellite laser based). As a result, we market our products across a wide variety of customer groups, including laser systems manufacturers, laser OEM’s, infrared-imaging systems vendors, automotive OEMs, industrial laser tool manufacturers, telecommunications equipment manufacturers, medical instrumentation manufacturers and industrial measurement equipment manufacturers, government defense agencies, and research institutions worldwide. Our marketing efforts include a global unification of our messaging with the use of digital advertising, branding activities that utilize social media, our website and direct marketing activities. As our focus shifts from the sale of components and standard products to being a value-add supply partner for customized solutions, our marketing activities also shift from a focus on technical aspects of standard components to a focus on best practice use cases, the overall outcome from our solutions and end user benefit. Our market messaging will look to inspire interest and promote engagement.

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Sales Model & Structure. To align the organization to better serve our new solution strategy and for accountability of our key corporate objectives, we have made organizational changes designed to ensure customer satisfaction and operational efficiency. Our organizational structure includes a technical project management function that enables the close coordination of supply with demand to help us leverage our core offerings and coordinate our engineering development efforts that will leverage and expand our portfolio of capabilities. We have recently incorporated our product management function within our go-to-market team to provide both internal and external support for growth of our thermal imaging product solutions portfolio. We have also transitioned from a business unit focus to a unified global direct sales team that promotes the overall company portfolio and is standardized on a problem solving, needs analysis process.

Sales Team & Channel. We have aligned our sales engineering efforts to be account based and application focused. We have taken a more proactive approach to our direct selling efforts to increase our customer engagement and allow for expansion of our solutions within current customers by expanding relationships. We continue to enhance our website (www.lightpath.com), social media presence, email communications and our position as thought leaders in both optics and thermal imaging through these platforms.

Trade Shows. We display our standard products, promote new innovative offerings and meet with industry influencers at a number of conferences each year throughout North America, Europe and Asia. So far in 2024, we have participated in the SHOT Show in Las Vegas, the largest professional event for the sport shooting, hunting and outdoor industry in North America; SPIE Photonics West in San Francisco; SPIE DCS, AUVSI Xponential which promotes emerging technologies supporting autonomous vehicles, drones and robotics; and numerous other conferences in the EU as well as Asia. These trade shows provide us an opportunity to further expand our brand, network to enhance business relationships and gain valuable insight into technology trends in our target markets. As we continue our efforts to be viewed as a solutions provider and thought leader in the industries we serve, we continue to participate in these events, exhibiting and educating our current and potential customers.

Competition

The markets in which we compete are highly competitive and highly fragmented in their needs. We compete with manufacturers of conventional spherical lenses and optical components, providers of aspheric lenses and optical components, and producers of optical quality glass. In addition, we compete with providers of thermal imaging products that produce their own optical components and sensors.

While the global market for component supply is fragmented and highly competitive, we strive to maintain advantages through our unique technologies that often build on our leadership in precision molded optics, as well as our vertical integration in infrared optics, from raw materials through assemblies and engineered solutions, which can also contain sensors and electronics.

Pricing is currently challenging due to the fluctuating cost of raw materials that have generally been used to produce optical components such as germanium (Ge). Our BlackDiamond materials offer supply chain risk mitigation as well as a price consistency alternative to both our customers and some of our competitors, allowing us to provide solutions to customers from raw materials to fully customized solutions.

Our size and scale allow us to address many opportunities that some of our much larger competitors are choosing to ignore. Many of our competitors are companies of much larger size and scale, and prefer to produce products in massive quantities, whereas our capabilities allow us to address underserved markets that our larger competitors routinely abandon.

Engineered Solutions and Assemblies and Modules Product Groups.

As described earlier in regards to product groups, our engineering services and assemblies and modules product groups are tied together, such that one (engineering services) mostly feeds the other group (assemblies and modules). As such, the competition for the two groups are also tied together and we will therefore address both groups together.

In those two product groups, we see three distinct types of competition. The first is direct competitors, i.e. companies like us that offer the ability to design from scratch, or modify an existing design of a sub-system or system, and deliver it all the way to production and recurring production deliveries. Currently, we do not see much of such competition. Some companies offer such services and the ability to deliver those designed units in production volumes, yet lack the breadth of knowledge and capabilities we have, both on the design side as well as the manufacturing. We are able to leverage our vertical integration and detailed design on all aspects of the camera or assembly.

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The second type of competition we see is standard products, which can be available to the customer without any customization. Such products are available from many vendors, including those that offer a large catalog of standard assemblies, those that offer standard cameras with no customization, and others. In standard products, the competition is very different, and customers must even compromise on performance, or adjust their system requirements to use a standard off the shelf product. Since customers are always looking to improve their products vis a vis competition, and to push the limits and boundaries of performance, compromising for an off the shelf product is not a fit for such customers. When customers look to use an off the shelf standard product versus a customized or modified product, they will often times compromise on size, weight, technical performance such as detection range, and power consumption. Though for some customers those are acceptable compromises, we do not see this as a major competition or risk to our business model, as the market keeps demanding better performance in every aspect, which cannot easily be achieved with standard products alone.

The third type of competition we see within this product group is internal, within the customer's organization. Depending on the organization and context, there are situations where customers would look internally to their engineering groups, or other departments in their organization to design and build an optical system. This approach was prevalent up until a few years ago, when many organizations still tried to do everything in house, including optical design and manufacturing. In some organizations, and primarily some defense primes, this still exists. However, as technology evolves, and as the customer base expands to include more customers who do not view optics as part of their core capabilities and know-how, more and more companies abandon the approach of designing everything in-house, and thus the internal type of competition is in decline.

Infrared Components Product Group. Our infrared optical components compete with optical products produced by Janos Technology LLC, Ophir Optronics Solutions Ltd. (a subsidiary of MKS Instruments, Inc.), Clear Align, II-VI, Inc. and a variety of Eastern European and Asian manufacturers. Infrared optical components can be produced using several techniques. Historically, infrared optical components were produced only using traditional fabrication technologies, which later changed when diamond turning was introduced (a form of advanced CNC for optical materials), and most recently, with the adoption of synthetic chalcogenide glass, we began to precision mold infrared optical components, by leveraging our years of leadership and expertise in precision molding. Being synthetically produced, chalcogenide glass, such as our proprietary BD6 material, has an inherently lower cost than crystalline materials such as germanium. Additionally, glass such as our BD6 material provides further advantages, including a-thermal behavior, lower weight, and an ability to produce high-volumes through precision molding, something traditional infrared materials cannot achieve due to their crystal structure. In addition to molding lenses directly into finished form, we also developed and patented a process to mold large optical elements into near net shape, which offers a significant cost savings for components that cannot be produced directly from molding. All of this is related in part to our choice to vertically integrate, and produce our own chalcogenide glass, positioning us to create more technical advantages for our customers, by leveraging and optimizing our glass manufacturing to produce unique materials and better overall system performance.

We believe that the market shift towards the use of synthetic materials in infrared products represents a significant opportunity for us, and we continue to invest in further pushing the limits of both molding of infrared components, as well as the glass manufacturing technology and products. We believe this process will create significant differentiators and value in this industry segment, and will further change the dynamics of this industry segment.

Our molded infrared optics competes with products manufactured by Umicore N.V., Rochester Precision Optics, and a number of Asian and European manufacturers. We believe that leadership in glass molding technologies, our vertical integration by producing our own glass, and our continued investment in technology development in this area, coupled with our diverse manufacturing flexibility, and our manufacturing facilities located in Asia, Europe and North America are key advantages over the products manufactured by competitors.

Visible Components Product Group. Our PMO products compete with conventional lenses and optical components manufactured from companies such as Asia Optical Co., Inc., Anteryon BV, Rochester Precision Optics, and Sunny Optical Technology (Group) Company Limited. Aspheric lens system manufacturers include Panasonic Corporation, Alps Electric Co., Ltd., Hoya Corporation, as well as other competitors from China and Taiwan, such as E-Pin Optical Industry Co., Ltd., and Kinik Company.

Our aspheric lenses compete with lens systems comprised of multiple conventional lenses. Machined aspheric lenses compete with our molded glass aspheric lenses. The use of aspheric surfaces provides the optical designer with a powerful tool in correcting spherical aberrations and enhancing performance in state-of-the-art optical products. However, we believe that our optical design expertise and our flexibility in providing custom high-performance optical components at a low price are key competitive advantages for us over competitors. An additional competitive advantage is our ability to switch production between different facilities on different continents. We do not depend on one facility and are able to move production in and out of China, which we believe creates a significant advantage by giving us supply chain continuity and an ability to adjust to customers' geographical preferences.

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Plastic molded aspheres and hybrid plastic/glass aspheric optics allow for high volume production, but primarily are limited to low-cost consumer products that do not place a high demand on performance (such as plastic lenses in disposable or mobile phone cameras). Molded plastic aspheres appear in products that stress cost or weight as their measure of success over performance and durability. Our low-cost structure allows us to compete with these lenses based on higher performance and durability from our glass lenses at only a small premium in price. We do not compete in the market for plastic lenses unless a glass substitution presents a viable alternative.

Manufacturing

Facilities. Our manufacturing is largely performed in our combined 58,500 square feet of production facilities in Orlando, Florida, in LPOIZ's combined 55,000 square feet of production facilities in Zhenjiang, China, and in ISP Latvia's 29,000 square feet of production facilities in Riga, Latvia. Effective June 1, 2024, LPOIZ reduced its facility to 39,500 square feet.

Our Orlando Facility and LPOIZ's Zhenjiang Facility feature areas for each step of the manufacturing process, including coating work areas, diamond turning, manufacturing and a clean room for precision glass molding and integrated assembly. The Orlando and Zhenjiang Facilities include new product development laboratories and space that includes development and metrology equipment. The Orlando and Zhenjiang Facilities have anti-reflective and infrared coating equipment to coat our lenses in-house. ISP Latvia's Riga Facility includes fully vertically integrated manufacturing processes to produce high precision infrared lenses and infrared lens assemblies, CNC grinding, conventional polishing, diamond turning, assemblies and state of the art metrology. During fiscal year 2021, we began adding infrared coating capabilities in the Riga Facility as well.

We are routinely adding additional production equipment at our Orlando, Zhenjiang and Riga Facilities. In fiscal year 2021, we added additional space in our Riga Facility, and also executed a lease agreement for additional space at our Orlando Facility. We completed the build out of our additional Orlando Facility space in August 2023. In addition to adding equipment or space at our manufacturing facilities, we add work shifts, as needed, to increase capacity and meet forecasted demand. We intend to monitor the capacity at our facilities, and will increase such space as needed. We believe our facilities and planned expansions are adequate to accommodate our needs over the next year.

Production and Equipment. Our Orlando Facility contains glass melting capability for BD6 chalcogenide glass, a manufacturing area for our molded glass aspheres, multiple anti-reflective and wear resistant coating chambers, diamond turning machines and accompanying metrology equipment offering full scale diamond turning lens capability, a tooling and machine shop to support new product development, commercial production requirements for our machined parts, the fabrication of proprietary precision glass molding machines and mold equipment, and a clean room for our molding and assembly workstations and related metrology equipment.

LPOIZ's Zhenjiang Facility features a precision glass molding manufacturing area, clean room, machine shop, dicing area, and thin film coating chambers for anti-reflective coatings on both visible and infrared optics and related metrology equipment.

ISP Latvia's Riga Facility consists of crystal growth, grinding, polishing, diamond turning, quality control departments and a mechanical shop to provide the departments with the necessary tooling. The grind and polish department has modern CNC equipment, lens centering and conventional equipment to

perform spindle, double sided and continuous polishing operations. The diamond turning department has numerous diamond-turning machines accompanied with the latest metrology tools. During fiscal year 2021, we began adding infrared coating capabilities at the Riga Facility, which was completed the second half of fiscal year 2022. The quality control department contains numerous inspection stations with various equipment to perform optical testing of finished optics.

The Orlando, Zhenjiang, and Riga Facilities are ISO 9001:2015 certified. The Zhenjiang Facility is also ISO/TS 1649:2009 automotive certified for manufacturing of optical lenses and accessories. The Orlando Facility is International Traffic in Arms Regulations (“ITAR”) compliant and registered with the U.S. Department of State. The Riga Facility has a DSP-5 ITAR license and Technical Assistance Agreement in place that allows this facility to manufacture items with ITAR requirements.

For more information regarding our facilities, please see *Item 2. Properties* in this Annual Report on Form 10-K.

Subcontractors and Strategic Alliances. We believe that low-cost manufacturing is crucial to our long-term success. In that regard, we generally use subcontractors in our production process to accomplish certain processing steps requiring specialized capabilities. For example, we presently use a number of qualified subcontractors for fabricating, polishing, and coating certain lenses, as necessary. We have taken steps to protect our proprietary methods of high-quality manufacturing by patent disclosures and internal trade secret controls.

Suppliers. We utilize a number of glass compositions in manufacturing our molded glass aspheres and lens array products. These glasses or equivalents are available from a large number of suppliers, including CDGM Glass Company Ltd., Ohara Corporation, and Sumita Optical Glass, Inc. Base optical materials, used in both infrared glass and collimator products, are manufactured and supplied by a number of optical and glass manufacturers. We utilize major infrared material suppliers located around the globe for a broad spectrum of infrared crystal and glass. The development of our manufacturing capability for BD6 glass and other germanium alternatives provides a low-cost internal source for infrared glass. We believe that a satisfactory supply of such production materials will continue to be available, at reasonable or, in some cases, increased prices, although there can be no assurance in this regard.

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We also rely on local and regional vendors for component materials and services such as housings, fixtures, chemicals and inert gases, specialty ceramics, UV and AR coatings, and other specialty coatings. In addition, certain products require external processing, such as anodizing and metallization. To date, we are not dependent on any of these manufacturers and have found a suitable number of qualified vendors and suppliers for these materials and services.

We currently purchase a few key materials from single or limited sources. We believe that a satisfactory supply of production materials will continue to be available at competitive prices, although we are experiencing inflationary pricing pressure in the short term, however there can be no assurances in this regard.

Intellectual Property

Our policy is to protect our technology by, among other things, trade secret protection, patents, trademarks, and copyrights. We primarily rely upon trade secrets and unpatented proprietary know-how to protect certain process inventions, lens designs, and innovations. We have taken reasonable security measures to protect our trade secrets and proprietary know-how.

We are aggressively pursuing patents for new products that provide new features, capabilities or other advantages to our customers. Over the past two years we have filed 6 new patent applications. The first filing uses a midwave thermal imaging camera with relay optics and a risley prism scanner for inspection of boilers and furnaces. The risley prism scanner gives the system the ability to steer the image area within the furnace. The second filing uses an uncooled broadband camera for flame detection coupled with detection of humans or other low temperature signals within the overall imaging area. The third filing is for an optical element formed from a moldable material, with a transparent layer of a different material applied to the optical surface for use in resistive heating of the element. This can be used to provide heating on an optic for de-icing or de-fogging. The fourth filing combines LWIR Imaging with an extended short wavelength infrared (“eSWIR”) light source to allow for IR imaging and illumination in the same image using a single detector. The fifth filing is for a single camera that can detect a signaling laser such as a beacon in one wavelength, while imaging the heat emitted from objects in another waveband. The sixth is for directed shutterless calibration by using pulsed infrared sources that can illuminate all pixels in the focal plane array with short pulses of light, which can then be used for non-uniformity correction.

We own several registered and unregistered service marks and trademarks (collectively, “marks”) that are used in the marketing and sale of our products. The following table sets forth our registered and unregistered marks, and denotes whether each mark is registered, the country in which the mark is filed, and the renewal date for such mark.

Mark	Type	Registered	Country	Renewal Date
LightPath®	Service mark	Yes	United States	Pending
GRADIUM™	Trademark	Yes	United States	April 29, 2027
Circulight	Trademark	No	-	-
BLACK DIAMOND	Trademark	No	-	-
GelTech	Trademark	No	-	-
Oasis	Trademark	No	-	-
LightPath®	Service mark	Yes	People’s Republic of China	September 13, 2025
ISP Optics®	Trademark	Yes	United States	February 12, 2025

Environmental and Governmental Regulation

Currently, emissions and waste from our manufacturing processes are at such low levels that no special environmental permits or licenses are required. In the future, we may need to obtain special permits for disposal of increased waste by-products. The glass materials we utilize contain some toxic elements in a stabilized molecular form. However, the high temperature diffusion process results in low-level emissions of such elements in gaseous form. If production reaches a certain level, we believe that we will be able to efficiently recycle certain of our raw material waste, thereby reducing disposal levels. We believe

that we are presently in compliance with all material federal, state, and local laws and regulations governing our operations and have obtained all material licenses and permits necessary for the operation of our business.

We also utilize certain chemicals, solvents, and adhesives in our manufacturing process. We believe we maintain all necessary permits and are in full compliance with all applicable regulations.

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To our knowledge, there are currently no U.S. federal, state, or local regulations that restrict the manufacturing and distribution of our products. Certain end-user applications require government approval of the complete optical system, such as U.S. Food and Drug Administration approval for use in endoscopy. In these cases, we will generally be involved on a secondary level and our OEM customer will be responsible for the license and approval process.

The Dodd-Frank Wall Street Reform and Consumer Protection Act imposes disclosure requirements regarding the use of “conflict minerals” mined from the Democratic Republic of Congo and adjoining countries in products, whether or not these products are manufactured by third parties. The conflict minerals include tin, tantalum, tungsten, and gold, and their derivatives. Pursuant to these requirements, we are required to report on Form SD the procedures we employ to determine the sourcing of such minerals and metals produced from those minerals. There are costs associated with complying with these disclosure requirements, including for diligence in regards to the sources of any conflict minerals used in our products, in addition to the cost of remediation and other changes to products, processes, or sources of supply as a consequence of such verification activities. In addition, the implementation of these rules could adversely affect the sourcing, supply, and pricing of materials used in our products. We strive to only use suppliers that source from conflict-free smelters and refiners; however, in the future, we may face difficulties in gathering information regarding our suppliers and the source of any such conflict minerals.

Major Customers

In fiscal year 2024, we had sales to three customers that comprised an aggregate of approximately 25% of our annual revenue with one customer at 12% of our sales, another customer at 7% of our sales, and the third customer at 6% of our sales. In fiscal year 2023, we had sales to three customers that comprised an aggregate of approximately 24% of our annual revenue with one customer at 11% of our sales, another customer at 7% of our sales, and the third customer at 6% of our sales. The loss of any of these customers, or a significant reduction in sales to any such customer, would adversely affect our revenues and profits. However, the largest customer for fiscal year 2024 was not among the three largest for fiscal year 2023, which demonstrates that our customer concentration is not static. We continue to diversify our business in order to minimize our sales concentration risk.

In fiscal year 2024, 39% of our net revenue was derived from sales outside of the U.S., with 94% of our foreign sales derived from customers in Europe and Asia. In fiscal year 2023, 50% of our net revenue was derived from sales outside of the U.S., with 93% of our foreign sales derived from customers in Europe and Asia.

Employees

Our employees are critical in providing our customers the most innovative optic products. We employ a diverse group of people with different backgrounds, cultures, education and experience to move the Company and our strategic plan forward. As of June 30, 2024, we had 316 employees globally, including 304 full-time and 12 part-time employees, with 99 full-time employees in the U.S., 102 full-time employees located in Riga, Latvia, and 101 full-time employees located in Zhenjiang, China. We have used and will continue utilizing part-time support, including interns, temporary employment agencies, and outside consultants, as required from time to time. Any employee additions or terminations over the next twelve months will be dependent upon the actual sales levels realized during fiscal year 2025.

Compensation and Benefits

LightPath offers competitive compensation and benefit packages are designed to meet the short-term and long-term needs of our employees and their families. These benefits include but are not limited to a 401(k) Plan with company match, flexible spending and health savings accounts, short-term incentive programs, healthcare benefits, and employee assistance program.

Recruitment

Sourcing and hiring top talent is part of our success. Using different sources and partnerships to connect with talent has been crucial. LightPath uses regional, industry and internal metrics to ensure we are staying competitive in the market.

Diversity and Inclusion Initiatives

LightPath is committed to being a diverse and equal opportunity employer. We strive to create a diverse and inclusive workplace. As a global company, we celebrate diversity. All employment decisions are based on business need, basis of qualifications, performance and merit.

Employee Training

Employees start training on the first day of employment. Depending on their new position, initial training can take up to six months. All employees are given basic safety training for fire, hazardous materials, first aid, physical lifting, and accident prevention. As changes are made to processes and new products are introduced, training is imperative. All electronic training programs are assigned through a labor management system and completion records are maintained within the same system.

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Available Information

We maintain a website with the address www.lightpath.com. We are not including the information contained on our website as part of, or incorporating it by reference into, this Form 10-K. Through our website, we make available free of charge our annual reports on Form 10-K, quarterly reports on Form 10-

Q, current reports on Form 8-K, and other reports and amendments to these reports that we file with or furnish to the Securities and Exchange Commission (“SEC”) in a timely manner after we provide them.

Item 1A. Risk Factors.

The following is a discussion of the primary factors that may affect the operations and/or financial performance of our business. Refer to the section entitled *Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations* of this Annual Report on Form 10-K for an additional discussion of these and other related factors that affect our operations and/or financial performance.

Risks Related to Our Business and Financial Results

We have a history of losses. We reported net losses of \$8.0 million, \$4.0 million, \$3.5 million and \$3.2 million for fiscal years 2024, 2023, 2022 and 2021, respectively. As of June 30, 2024, we had an accumulated deficit of approximately \$215.8 million. We may incur losses in the future if we do not achieve sufficient revenue to maintain profitability, or if we continue to incur unusual costs. We expect revenue to grow by generating additional sales through promotion of our infrared products, with a focus on engineered solutions, and continued cost reduction efforts across all product groups, but we cannot guarantee such improvement or growth.

Factors which could adversely affect our future profitability, include, but are not limited to, a decline in revenue either due to lower sales unit volumes or decreasing selling prices, or both, our ability to order supplies from vendors, which, in turn, affects our ability to manufacture our products, and slow payments from our customers on accounts receivable.

Any failure to maintain profitability would have a materially adverse effect on our ability to implement our business plan, our results and operations, and our financial condition, and could cause the value of our Class A common stock to decline.

We may be affected by political and other risks as a result of our sales to international customers and/or our sourcing of materials from international suppliers. In fiscal year 2024, 39% of our net revenue was derived from sales outside of the U.S., with 94% of our foreign sales derived from customers in Europe and Asia. In fiscal year 2023, 50% of our net revenue was derived from sales outside of the U.S., with 93% of our foreign sales derived from customers in Europe and Asia. Our international sales will be limited, and may even decline, if we cannot establish relationships with new international distributors, maintain relationships with our existing international distributions, maintain and expand our foreign operations, expand international sales, and develop relationships with international service providers. Additionally, our international sales may be adversely affected if international economies weaken. We are subject to the following risks, among others:

- greater difficulty in accounts receivable collection and longer collection periods;
- potentially different pricing environments and longer sales cycles;
- the impact of recessions in economies outside the U.S.;
- the impact of high, sustained inflation;
- unexpected changes in foreign regulatory requirements;
- the burdens of complying with a wide variety of foreign laws and different legal standards;
- certification requirements;
- reduced protection for intellectual property rights in some countries;
- difficulties in managing the staffing of international operations, including labor unrest and current and changing regulatory environments;
- potentially adverse tax consequences, including the complexities of foreign value-added tax systems, restrictions on the repatriation of earnings, and changes in tax rates;
- price controls and exchange controls;
- government embargoes or foreign trade restrictions;
- imposition of duties and tariffs and other trade barriers;
- import and export controls;
- transportation delays and interruptions;
- terrorist attacks and security concerns in general; and
- political, social, economic instability and disruptions.

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Russia’s ongoing conflict with Ukraine may continue to disrupt our supply chain. Our business, financial condition, and results of operations could be adversely affected by continued disruption and global consequences stemming from the conflict. Although we have no direct operations in Russia or Ukraine, the broader consequences of this conflict have negatively affected, and are expected to continue to negatively affect, the global economy, including the imposition of sanctions, cyber incidents or information technology failures, supply disruptions, increases in inflation rates, increase in energy costs, changes to foreign currency exchange rates, constraints, volatility, or disruption in financial markets, the availability of raw materials, supplies, freight, and labor, and uncertainty about economic and global stability. Historically, we have sourced Germanium from suppliers located in Russia and China. At the start of the Russia/Ukraine conflict we had ceased all purchases of Germanium from vendors in Russia and instead have been purchasing Germanium from vendors in China. On July 4, 2023 China announced its intentions to impose some export restrictions on Germanium, requiring all international customers to provide an end user statement for approval before receiving an export license. Since that announcement, supply of Germanium has been disrupted, though not completely stopped. As a purchaser of Germanium, we are mostly able to purchase the Germanium we need, though the availability of it and ability to receive export licenses varies between vendors. From our customers we know that some of them are able to import Germanium from China, while some get refused for a license. Yet, even those that are able to receive a license experience material lead times that are significantly prolonged because of the process to get a license, and prices that as of August 2024, were 60% higher than the same time last year. We cannot provide any assurances that we will be able to obtain adequate supplies in the future or, if adequate supplies are available, that the timing or costs of obtaining such raw materials will be acceptable to us. Further, some of our major customers in Europe may be directly impacted by the Russian-Ukraine conflict, which could impact the amount and frequency of orders they place with us, as well as impact the timing and ability to pay for products ordered from us. Any material impacts to our customers could have a material adverse effect on our business and operating results.

We depend on single or limited source suppliers for some of the key materials or process steps in our products, making us susceptible to supply shortages, poor performance, or price fluctuations. We currently purchase several key materials (including Germanium) or have outside vendors perform

process steps, such as lens coatings, used in or during the manufacture of our products from single or limited source suppliers. We may fail to obtain required materials or services in a timely manner in the future, or we could experience delays as a result of evaluating and testing the products or services of potential alternative suppliers. The economic decline in China may have adversely impacted the financial condition of certain of our suppliers, some of whom have limited financial resources. We have in the past, and may in the future, be required to provide advance payments in order to secure key materials from financially limited suppliers. Financial or other difficulties faced by these suppliers could limit the availability of key components or materials. The economic decline in China has also increased the risk of bankruptcy for suppliers with operations in China and has led to higher manufacturing costs for us and the need to identify alternate suppliers. Additionally, financial difficulties could impair our ability to recover advances made to these suppliers. Any interruption or delay in the supply of any of these materials or services, or the inability to obtain these materials or services from alternate sources at acceptable prices and within a reasonable amount of time, would impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders, thereby negatively affecting our business, financial condition, and results of operation.

International tariffs, including tariffs applied to goods traded between the U.S. and China, could materially and adversely affect our business and results of operations. In recent years, the U.S. government took certain actions that led to, and may lead to, further changes to U.S. and international trade policies, including the imposition of tariffs affecting certain products exported by a number of U.S. trading partners, including China. The institution of trade tariffs both globally and between the U.S. and China specifically carries the risk of negatively impacting China's overall economic condition, which could have negative repercussions for us. Furthermore, imposition of tariffs could cause a decrease in the sales of our products to customers located in China or other customers selling to Chinese end users, which would directly impact our business.

It remains unclear how tax or trade policies, tariffs, or trade relations may change or evolve with changes in the U.S. Presidential Administration. Perceived or actual changes in U.S. trade policy could trigger retaliatory actions by affected countries, which could impose restrictions on our ability to do business in or with affected countries or prohibit, reduce, or discourage purchases of our products by foreign customers, leading to increased costs of products that contain our components, increased costs of manufacturing our products, and higher prices of our products in foreign markets. Changes in, and responses to, U.S. trade policy could reduce the competitiveness of our products and cause our sales and revenues to drop, which could materially and adversely impact our business and results of operations.

We utilize a number of strategies to mitigate the current and, hopefully, future impact of tariffs. However, given the uncertainty regarding the current tariffs, as well as the potential for additional trade actions by the U.S. or other countries in the future, any future impact on our operations and financial results is uncertain and these impacts could be more significant than those we have experienced in the past. Further, we can provide no assurance that the strategies we implemented to mitigate the impact of such tariffs or other trade actions will continue to be successful. To the extent that our supply chain, costs, sales, or profitability are negatively affected by the tariffs or other trade actions, our business, financial condition, and results of operations may be materially adversely affected.

We are exposed to fluctuations in currency exchange rates that could negatively impact our financial results and cash flows. We execute all foreign sales from our U.S.-based facilities and inter-company transactions in U.S. dollars in order to partially mitigate the impact of foreign currency fluctuations. However, a portion of our international revenues and expenses are denominated in foreign currencies. Accordingly, we experience the risks of fluctuating currencies and corresponding exchange rates. In fiscal years 2024 and 2023, we recognized net gains of approximately \$73,000 and losses of \$37,000 on foreign currency transactions, respectively. Any such fluctuations that result in a less favorable exchange rate could adversely affect a portion of our revenues and expenses, which could negatively impact our results of operations and financial condition.

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We also source certain raw materials from outside the U.S. Some of those materials, priced in non-dollar currencies, fluctuate in price due to the value of the U.S. dollar against non-dollar-pegged currencies, especially the Euro and Renminbi. As the dollar strengthens, this increases our margins and helps with our ability to reach positive cash flow and profitability. If the strength of the U.S. dollar decreases, the cost of foreign sourced materials could increase, which would adversely affect our financial condition and results of operations. If the Euro or Renminbi currencies were to trend unfavorably against the U.S. dollar on a long-term basis, then we would seek to rebalance our strategic materials sourcing.

We are dependent on a few key customers, and the loss of any key customer could cause a significant decline in our revenues. In fiscal year 2024, we had sales to three customers that comprised an aggregate of approximately 25% of our annual revenue, with one customer at 12% of our sales, another customer at 7% of our sales, and the third customer at 6% of our sales. In fiscal year 2023, we had sales to three customers that comprised an aggregate of approximately 24% of our annual revenue, with one customer at 11% of our sales, another customer at 7% of our sales, and the third customer at 6% of our sales. Our current strategy of providing the domain expertise and the extensive "know how" in optical design, fabrication, production and testing technologies will allow our customers to focus on their own development efforts, without needing to develop subject matter expertise in optics. By providing the bridge into the optical solution world, we partner with our customers on a long-term basis, create value to our customers, and capture that value through the long-term supply relationships we develop. However, the loss of any of these customers, or a significant reduction in sales to any such customer, would adversely affect our revenues.

A significant portion of our cash is generated and held outside of the U.S. The risks of maintaining significant cash abroad could adversely affect our cash flows and financial results. During fiscal year 2024, greater than 25% of our cash was held abroad. Historically, we generally considered unremitted earnings of our subsidiaries operating outside of the U.S. to be indefinitely reinvested. During fiscal year 2020, we began declaring intercompany dividends to remit a portion of the earnings of our foreign subsidiaries to us. Remaining cash held outside of the U.S. is primarily used for the ongoing operations of the business in the locations in which the cash is held. Certain countries, such as China, have monetary laws that limit our ability to utilize cash resources in China for operations in other countries. Before any funds can be repatriated, the retained earnings of the legal entity must equal at least 50% of its registered capital. As of June 30, 2024, LPOIZ had approximately \$1.6 million in retained earnings available for repatriation, based on earnings accumulated through December 31, 2023, the end of the most recent statutory tax year, that remained undistributed as of June 30, 2024. LPOI did not have any earnings available for repatriation as of the date of the merger with LPOIZ. This limitation may affect our ability to fully utilize our cash resources for needs in the U.S. or other countries and may adversely affect our liquidity. Further, since repatriation of such cash is subject to limitations and may be subject to significant taxation, we cannot be certain that we will be able to repatriate such cash on favorable terms or in a timely manner. If we incur operating losses and/or require cash that is held in international accounts for use in our operations based in the U.S., a failure to repatriate such cash in a timely and cost-effective manner could adversely affect our business and financial results.

We will likely need additional capital to sustain our operations in the future and to repay indebtedness. We have limited capital resources. Our operations have historically been largely funded from the proceeds of equity financings and cash flow from operations along with a minimal level of debt

financing. We will likely need to raise additional financing to repay our outstanding indebtedness of approximately \$4.2 million, as of August 2024, and to fund our current level of operations as well as our strategic plan. Additional financing will be required in order for us to take advantage of acquisition opportunities that we may identify. Such financing, which is not in place at this time, may be from the sale of equity or convertible or other debt securities in a public or private offering, or from an additional credit facility. We may be unable to raise sufficient additional capital on favorable terms, if at all, to supply the working capital needs of our existing operations or to expand our business.

Our stock price may fluctuate widely. Many factors, including, but not limited to, future announcements concerning the Company, its competitors or customers, as well as quarterly variations in operating results, announcements of technological innovations, seasonal or other variations in anticipated or actual results of operations, changes in earnings estimates by analysts or reports regarding the Company's industries in the financial press or investment advisory publications, could cause the market price of the Company's stock to fluctuate substantially. In addition, the Company's stock price may fluctuate widely for reasons which may be unrelated to operating results. Also, any information concerning the Company, including projections of future operating results could in the future contribute to volatility in the market price of the Company's common stock.

As a U.S. corporation with international operations, we are subject to the U.S. Foreign Corrupt Practices Act and other similar foreign anti-corruption laws, as well as other laws governing our operations. If we fail to comply with these laws, we could be subject to civil or criminal penalties, other remedial measures, and legal expenses, which could adversely affect our business, financial condition, and results of operations. Our operations are subject to anti-corruption laws, including the U.S. Foreign Corrupt Practices Act ("FCPA"), and other foreign anti-corruption laws that apply in countries where we do business. The FCPA and these other laws generally prohibit us and our employees and intermediaries from offering, promising, authorizing or making payments to government officials or other persons to obtain or retain business or gain some other business advantage. In addition, we cannot predict the nature, scope, or effect of future regulatory requirements to which our international operations might be subject or the manner in which existing laws might be administered or interpreted. Operations outside of the U.S. may be affected by changes in trade production laws, policies, and measures, and other regulatory requirements affecting trade and investment.

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We are also subject to other laws and regulations governing our international operations, including regulations administered by the U.S. Department of Commerce's Bureau of Industry and Security, the U.S. Department of Treasury's Office of Foreign Asset Control, and various non-U.S. government entities, including applicable export control regulations, economic sanctions on countries and persons, customs, requirements, currency exchange regulations, and transfer pricing regulations (collectively, the "Trade Control Laws").

Despite our compliance programs, there can be no assurance that we will be completely effective in ensuring our compliance with all applicable anti-corruption laws, including the FCPA or other legal requirements, or Trade Control Laws. If we are not in compliance with the FCPA and other foreign anti-corruption laws or Trade Control Laws, we may be subject to criminal and civil penalties, disgorgement, and other sanctions and remedial measures, and legal expenses, which could have an adverse impact on our business, financial condition, results of operations and liquidity. Likewise, any investigation of any potential violations of the FCPA, other anti-corruption laws, or Trade Control Laws by the U.S. or foreign authorities could also have an adverse impact on our reputation, business, financial condition, and results of operations.

If the custodians or authorized users of our controlling non-tangible assets, including corporate chops and seals of our Chinese subsidiaries, fail to fulfill their responsibilities or misappropriate or misuse those assets, our business and operations could be materially and adversely affected. In China, a company chop or seal serves as the legal representation of the company towards third parties even when unaccompanied by a signature. Under law of the People's Republic of China, legal documents for corporate transactions, including contracts and leases that our business relies upon, are executed using "corporate chops," which are instruments that contain either the official seal of the signing entity or the signature of a legal representative whose designation is registered and filed with the State Administration for Industry and Commerce, or SAIC.

Our Chinese subsidiary, LPOIZ (and formerly LPOI), generally executes legal documents with corporate chops. One or more of our corporate chops may be used to, among other things, execute commercial sales or purchase contracts, procurement contracts and office leases, open bank accounts, issue checks and to issue invoices. We have controls in place over access to and use of the chops. However, we cannot assure you that unauthorized access to or use of those chops can be prevented. Our designated employees who hold the corporate chops could abuse their authority by, for example, binding us to contracts against our interests or intentions, which could result in economic harm, disruption or our operations or other damages to them as a result of any contractual obligations, or resulting disputes, that might arise. If the party contracting with us asserted that we did not act in good faith under such circumstances, then we could incur costs to nullify such contracts. Such corporate or legal action could involve significant time and resources, while distracting management from our operations. In addition, we may not be able to recover corporate assets that are sold or transferred out of our control in the event of such a misappropriation if a transferee relies on the apparent authority of the representative and acts in good faith.

If a designated employee uses a chop in an effort to obtain control over our Chinese subsidiary, we would need to take legal action to seek the return of the applicable chop(s), apply for a new chop(s) with the relevant authorities, or otherwise seek legal redress for the violation of their duties. During any period where we lose effective control of the corporate activities of our Chinese subsidiary as a result of such misuse or misappropriation, the business activities of the affected entity could be disrupted, and we could lose the economic benefits of that aspect of our business. To the extent those chops are stolen or are used by unauthorized persons or for unauthorized purposes, the corporate governance of this entity could be severely and adversely compromised, and the operations of this entity could be significantly and adversely impacted.

We rely, in large part, on key business and sales relationships for the successful commercialization of our products, which, if not developed or maintained, will have an adverse impact on achieving market awareness and acceptance and will result in a loss of business opportunities. To achieve wide market awareness and acceptance of our products and technologies, as part of our business strategy, we will attempt to enter into a variety of business relationships with other companies that will incorporate our technologies into their products and/or market products based on our technologies. The successful commercialization of our products and technologies will depend in part on our ability to meet obligations under contracts with respect to the products and related development requirements. The failure of these business relationships will limit the commercialization of our products and technologies, which will have an adverse impact on our business development and our ability to generate revenues.

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If we do not expand our sales and marketing organization, our revenues may not increase. The sale of our products requires prolonged sales and marketing efforts targeted at several key departments within our prospective customers' organizations and often involves our executives, personnel, and specialized systems and applications engineers working together. Currently, our direct sales and marketing organization is somewhat limited. We believe we will need to continue to strengthen our sales and marketing organization in order to increase market awareness and sales of our products. There is significant competition for qualified personnel, and we might not be able to hire the kind and number of sales and marketing personnel and applications engineers we need. If we are unable to continue to expand our sales operations globally, we may not be able to continue to increase market awareness or sales of our products, which would adversely affect our revenues, results of operations, and financial condition.

If we are unable to effectively compete, our business and operating results could be negatively affected. We face substantial competition in the optical markets in which we operate. Many of our competitors are large public and private companies that have longer operating histories and significantly greater financial, technical, marketing, and other resources than we have. As a result, these competitors are able to devote greater resources than we can to the development, promotion, sale, and support of their products. In addition, the market capitalization and cash reserves of several of our competitors are much larger than ours, and, as a result, these competitors are better positioned than we are to exploit markets, develop new technologies, and acquire other companies in order to gain new technologies or products. We also compete with manufacturers of conventional spherical lens products and aspherical lens products, producers of optical quality glass, and other developers of gradient lens technology, as well as telecommunications product manufacturers. In both the optical lens and communications markets, we are competing against, among others, established international companies, especially in Asia. Many of these companies also are primary customers for optical and communication components, and, therefore, have significant control over certain markets for our products. There can be no assurance that existing or new competitors will not develop technologies that are superior to or more commercially acceptable than our existing and planned technologies and products or that competition in our industry will not lead to reduced prices for our products. If we are unable to successfully compete with existing companies and new entrants to the markets we compete in, our business, results of operations, and financial condition could be adversely affected.

We anticipate further reductions in the average selling prices of some of our products over time, and, therefore, must increase our sales volumes, reduce our costs, and/or introduce higher margin products to reach and maintain consistent profitable results. We have experienced decreases in the average selling prices of some of our products over the last ten years, including most of our passive component products. We anticipate that as certain products in the optical component and module market become more commodity-like, the average selling prices of our products will decrease in response to competitive pricing pressures, new product introductions by us or our competitors, or other factors. We attempt to offset anticipated decreases in our average selling prices by increasing our sales volumes and/or changing our product mix. If we are unable to offset anticipated future decreases in our average selling prices by increasing our sales volumes or changing our product mix, our net revenues and gross margins will decline, increasing the projected cash needed to fund operations. To address these pricing pressures, we must develop and introduce new products and product enhancements that will generate higher margins, continue to reduce costs, and/or change our product mix in order to generate higher margins. If we cannot maintain or improve our gross margins, our financial position, and results of operations may be harmed.

Because of our limited product offerings, our ability to generate additional revenues may be limited without additional growth. With our strategic transition into more value-added solutions, and the addition of Visimid in July 2023, we reorganized our products into four product groups: infrared components, visible components, assemblies and modules, and engineering services. In fiscal year 2024, sales of infrared components represented approximately 44% of our net revenues, sales of visible components represented approximately 33% of our net revenues, sales of assemblies and modules represented 14% of our revenues, and engineering services represented 6% of our revenues. In the future, we expect growth primarily from our assemblies and modules and engineering services product groups, the vertical integration of which will be supported by the infrared components product group. Continued and expanding market acceptance of these products, particularly infrared products based on our proprietary chalcogenide materials (Germanium alternatives), is critical to our future success. There can be no assurance that our current or new products will achieve market acceptance at the rate at which we expect, or at all, which could adversely affect our results of operations and financial condition.

Our failure to accurately forecast material requirements could cause us to incur additional costs, have excess inventories, or have insufficient materials to manufacture our products. Our material requirements forecasts are based on actual or anticipated product orders. It is very important that we accurately predict both the demand for our products and the lead times required to obtain the necessary materials. Lead times for materials that we order vary significantly and depend on factors, such as specific supplier requirements, the size of the order, contract terms, and the market demand for the materials at any given time. If we overestimate our material requirements, we may have excess inventory, which would increase our costs. If we underestimate our material requirements, we may have inadequate inventory, which could interrupt our manufacturing and delay delivery of our products to our customers. Any of these occurrences would negatively impact our results of operations. Additionally, in order to avoid excess material inventories, we may incur cancellation charges associated with modifying existing purchase orders with our vendors, which, depending on the magnitude of such cancellation charges, may adversely affect our results of operations.

If we do not achieve acceptable manufacturing yields our operating results could suffer. The manufacture of our products involves complex and precise processes. Our manufacturing costs for several products are relatively fixed, and, thus, manufacturing yields are critical to the success of our business and our results of operations. Changes in our manufacturing processes or those of our suppliers could significantly reduce our manufacturing yields. In addition, we may experience manufacturing delays and reduced manufacturing yields upon introducing new products to our manufacturing lines. The occurrence of unacceptable manufacturing yields or product yields could adversely affect our financial condition and results of operations.

If our customers do not qualify our manufacturing lines for volume shipments, our operating results could suffer. Our manufacturing lines have passed our qualification standards, as well as our technical standards. However, our customers may also require that our manufacturing lines pass their specific qualification standards, and that we be registered under international quality standards, beyond our ISO 9001:2015 certification. This customer qualification process determines whether our manufacturing lines meet the customers' quality, performance, and reliability standards. Generally, customers do not purchase our products, other than limited numbers of evaluation units, prior to qualification of the manufacturing line for volume production. We may be unable to obtain customer qualification of our manufacturing lines or we may experience delays in obtaining customer qualification of our manufacturing lines. If there are delays in the qualification of our products or manufacturing lines, our customers may drop the product from a long-term supply program, which would result in significant lost revenue opportunity over the term of each such customer's supply program, or our customers may purchase from other manufacturers. The inability to obtain customer qualification of our manufacturing lines, or the delay in obtaining such qualification, could adversely affect our financial condition and results of operations.

Our future success depends on our key executive officers and our ability to attract, retain, and motivate qualified personnel. Our future success largely depends upon the continued services of our key executive officers, management team, and other engineering, sales, marketing, manufacturing, and support personnel. If one or more of our key employees are unable or unwilling to continue in their present positions, we may not be able to replace them readily, if at all. Additionally, we may incur additional expenses to recruit and retain new key employees. If any of our key employees joins a competitor or forms a competing company, we may lose some or a significant portion of our customers. Because of these factors, the loss of the services of any of these key employees could adversely affect our business, financial condition, and results of operations.

Our continuing ability to attract and retain highly qualified personnel will also be critical to our success because we will need to hire and retain additional personnel to support our business strategy. We expect to continue to hire selectively in the manufacturing, engineering, sales and marketing, and administrative functions to the extent consistent with our business levels and to further our business strategy. We face significant competition for skilled personnel in our industry. This competition may make it more difficult and expensive to attract, hire, and retain qualified managers and employees. Because of these factors, we may not be able to effectively manage or grow our business, which could adversely affect our financial condition or business.

We face product liability risks, which could adversely affect our business. The sale of our optical products involves the inherent risk of product liability claims by others. We do not currently maintain product liability insurance coverage. Product liability insurance is expensive, subject to various coverage exclusions, and may not be obtainable on terms acceptable to us if we decide to procure such insurance in the future. Moreover, the amount and scope of any coverage may be inadequate to protect us in the event that a product liability claim is successfully asserted. If a claim is asserted and successfully litigated by an adverse party, our financial position and results of operations could be adversely affected.

Business interruptions could adversely affect our business. We manufacture our products at manufacturing facilities located in Orlando, Florida; Riga, Latvia; and Zhenjiang, China. Our revenues are dependent upon the continued operation of these facilities. The Orlando Facility is subject to a lease that expires March 31, 2034. The Riga Facility is subject to two leases which expire in December 2030, and the Zhenjiang Facility is subject to one lease that expires in December 2024. We intend to renew the lease for the Zhenjiang Facility for at least a one-year term. Our operations are vulnerable to interruption by fire, hurricane winds and rain, earthquakes, electric power loss, telecommunications failure, and other events beyond our control. We do have a business continuity and recovery plan for our facilities however, we do not have a backup facility, other than our other facilities, or contractual arrangements with any other manufacturers in the event of a casualty to or destruction of any facility or if any facility ceases to be available to us for any other reason. If we are required to rebuild or relocate either of our manufacturing facilities, a substantial investment in improvements and equipment would be necessary. We carry only a limited amount of business interruption insurance, which may not sufficiently compensate us for losses that may occur.

Our facilities may be subject to electrical blackouts as a consequence of a shortage of available electrical power. We currently do not have backup generators or alternate sources of power in the event of a blackout. If blackouts interrupt our power supply, we would be temporarily unable to continue operations at such facility.

Any losses or damages incurred by us as a result of blackouts, rebuilding, relocation, or other business interruptions, could result in a significant delay or reduction in manufacturing and production capabilities, impair our reputation, harm our ability to retain existing customers and to obtain new customers, and could result in reduced sales, lost revenue, increased costs and/or loss of market share, any of which could substantially harm our business and our results of operations.

Risks Related to Our Intellectual Property

If we are unable to protect and enforce our intellectual property rights, we may be unable to compete effectively. We believe that our intellectual property rights are important to our success and our competitive position, and we rely on a combination of patent, copyright, trademark, and trade secret laws and restrictions on disclosure to protect our intellectual property rights in the United States and internationally. Although we have devoted substantial resources to the establishment and protection of our intellectual property rights, the actions taken by us may be inadequate to prevent imitation or improper use of our products by others or to prevent others from claiming violations of their intellectual property rights by us.

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In addition, we cannot assure that, in the future, our patent applications will be approved, that any patents that may be issued will protect our intellectual property, or that third parties will not challenge any issued patents. Other parties may independently develop similar or competing technology or design around any patents that may be issued to us. We also rely on confidentiality procedures and contractual provisions with our employees, consultants, and corporate partners to protect our proprietary rights, but we cannot assure the compliance by such parties with their confidentiality obligations, which could be very time consuming, expensive, and difficult to enforce.

It may be necessary to litigate to enforce our patents, copyrights, and other intellectual property rights, to protect our trade secrets, to determine the validity of and scope of the proprietary rights of others, or to defend against claims of infringement or invalidity. Such litigation can be time consuming, distracting to management, expensive, and difficult to predict. Our failure to protect or enforce our intellectual property could have an adverse effect on our business, financial condition, prospects, and results of operation.

We do not have patent protection for our formulas and processes, and a loss of ownership of any of our formulas and processes would negatively impact our business. We believe that we own our formulas and processes. However, we have not sought, and do not intend to seek, patent protection for all of our formulas and processes. Instead, we rely on the complexity of our formulas and processes, trade secrecy laws, and employee confidentiality agreements. However, we cannot assure you that other companies will not acquire our confidential information or trade secrets or will not independently develop equivalent or superior products or technology and obtain patent or similar rights. Although we believe that our formulas and processes have been independently developed and do not infringe the patents or rights of others, a variety of components of our processes could infringe existing or future patents, in which event we may be required to modify our processes or obtain a license. We cannot assure you that we will be able to do so in a timely manner or upon acceptable terms and conditions and the failure to do either of the foregoing would negatively affect our business, results of operations, financial condition, and cash flows.

Data breach and breakdown of information and communication technologies. In the course of our business, we collect and store sensitive data, including intellectual property. We could be subject to service outages or breaches of security systems which may result in disruption, unauthorized access, misappropriation, or corruption of this information. We rely on our information technology systems to effectively manage our operational and financial functions. We increasingly rely on information technology systems to process, transmit, and store electronic information. In addition, a significant portion

of internal communications, as well as communication with customers and suppliers, depends on information technology. We are exposed to the risk of cyber incidents in the normal course of business. Cyber incidents may be deliberate attacks for the theft of intellectual property, other sensitive information or cash or may be the result of unintentional events. Like most companies, our information technology systems may be vulnerable to interruption due to a variety of events beyond our control, including, but not limited to, physical or electronic break-ins, vendor service outages, terrorist attacks, telecommunications failures, computer viruses, hackers, foreign governments, and other security issues. We have technology security initiatives and data recovery plans in place to mitigate our risk to these vulnerabilities, but these measures may not be adequate, or implemented properly, or executed timely to ensure that our operations are not disrupted. We have insurance coverage for cyber liability, but there can be no assurances that the amount of coverage will be adequate or that insurance proceeds will be available for a particular claim.

Although we have not experienced an incident, potential consequences of a material cyber incident include damage to our reputation, litigation, system disruptions, shutdowns, unauthorized disclosure of confidential information, and increased cyber security protection and remediation costs. Such consequences could materially and adversely affect our results of operations.

We may become involved in intellectual property disputes and litigation, which could adversely affect our business. We anticipate, based on the size and sophistication of our competitors and the history of rapid technological advances in our industry that several competitors may have patent applications in progress in the U.S. or in foreign countries that, if issued, could relate to products similar to ours. If such patents were to be issued, the patent holders or licensees may assert infringement claims against us or claim that we have violated other intellectual property rights. These claims and any resulting lawsuits, if successful, could subject us to significant liability for damages and invalidate our proprietary rights. The lawsuits, regardless of their merits, could be time-consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation could also force us to do one or more of the following, any of which could harm our business and adversely affect our financial condition and results of operations:

- stop selling, incorporating or using our products that use the disputed intellectual property;
- obtain from third parties a license to sell or use the disputed technology, which license may not be available on reasonable terms, or at all; or
- redesign our products that use the disputed intellectual property.

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Item 1B. Unresolved Staff Comments.

None.

Item 1C. Cybersecurity.

Cybersecurity Risk Management and Strategy

We have established and implemented a comprehensive cybersecurity risk management program aimed at safeguarding the confidentiality, integrity, and availability of our critical information technology (“IT”) systems and sensitive information.

Our cybersecurity risk management program is fully integrated within our broader enterprise risk management framework, leveraging consistent methodologies, incident reporting channels, and governance processes. These approaches are used not only for cybersecurity risks but also for managing other areas of risk, including legal, compliance, strategic, operational, and financial. The program is continuously assessed and refined, using the National Institute of Standards and Technology Cybersecurity Framework (“NIST CSF”) as a guiding tool to identify, prioritize, and manage cybersecurity risks that could significantly affect our operations, financial performance, or business objectives.

Key components of our cybersecurity risk management program include:

- **Cybersecurity Incident Response Plan (“CIRP”):** Our CIRP ensures we are prepared to respond to, report, and remediate any cybersecurity incidents effectively. Led by the Chief Information Officer (“CIO”), our corporate compliance and risk management team manages all aspects of incident response. For significant incidents, additional third-party resources would be mobilized to mitigate impact on the business.
- **Continuous Vulnerability Management:** We continuously monitor our IT networks and legacy systems to identify threats that may adversely affect critical systems and information, ensuring that our broader IT environment remains secure.
- **Third-Party Cybersecurity Consultants:** We engage trusted third-party cybersecurity experts to enhance our security posture, perform assessments, and provide strategic guidance, ensuring continuous improvement in our cybersecurity approach.
- **Cybersecurity Awareness Training:** Employees, incident response teams, and senior management undergo regular training to ensure awareness of evolving cybersecurity threats and the appropriate responses.
- **Risk Management for Third-Party Providers:** We conduct due diligence when selecting and periodically reviewing third-party service providers, suppliers, and vendors to ensure they comply with necessary cybersecurity standards.

Cybersecurity Governance

Our executive team and Board of Directors are actively involved in overseeing cybersecurity risks. The executive team and the CIO oversee the Company's information security efforts and cybersecurity governance. This team regularly reviews our cybersecurity posture and any significant incidents that have occurred.

The management of our cybersecurity risks is led by the CIO and the executive team who bring over 35 years of combined experience in cybersecurity, IT, and risk management. This team is responsible for the overall cybersecurity risk management program, collaborating with internal teams, external

consultants, and cross-functional divisions. Their efforts are supported by threat intelligence from various sources, and they regularly benchmark our security practices against the NIST CSF.

Our CIO reports regularly to the executive team, providing updates on cybersecurity strategies, current threats, and long-term planning. Additionally, the CIO provides an annual cybersecurity update, presenting an overview of significant cybersecurity risks and their potential impact on internal controls.

In the event of a significant cybersecurity incident that escalates to a corporate crisis, the executive team and the Board will be engaged in alignment with the corporate compliance and risk protocols.

While LightPath Technologies faces various cybersecurity threats as part of routine operations, no risks have been identified to date that could materially impact the company's operations, strategy, financial condition, or overall business performance.

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Item 2. Properties.

Our properties consist primarily of leased office and manufacturing facilities. Our corporate headquarters are located in Orlando, Florida and our manufacturing facilities are primarily located in Zhenjiang, China and Riga, Latvia. The following schedule presents the approximate square footage of our offices and facilities as of June 30, 2024:

Location	Square Feet	Commitment and Use
Orlando, Florida	58,500	Leased; 2 suites used for corporate headquarters offices, manufacturing, and research and development
Riga, Latvia	29,000	Leased; 3 suites used for administrative offices and manufacturing
Zhenjiang, China	39,500	Leased; 1 building used for manufacturing

Our territorial sales personnel maintain an office from their homes to serve their geographical territories.

For additional information regarding our facilities, please see *Item 1. Business* in this Annual Report on Form 10-K. For additional information regarding leases, see Note 13, *Leases*, to the Notes to the Consolidated Financial Statements to this Annual Report on Form 10-K.

Item 3. Legal Proceedings.

From time to time, we are involved in various legal actions arising in the normal course of business. We currently have no material legal proceeding to which we are a party to or to which our properties are subject to and, to the best of our knowledge, no material adverse legal activity is anticipated or threatened.

Item 4. Mine Safety Disclosures.

Not Applicable.

Information About Our Executive Officers

Our executive officers are elected by the Board of Directors and serve until their successors are elected and qualified, subject to removal by the Board at any time. The following are the names, ages and current positions of our executive officers.

Name	Age	Position	Years as an Officer
Shmuel Rubin	50	President & Chief Executive Officer	4
Albert Miranda	57	Chief Financial Officer	3

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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our Class A common stock is traded on the Nasdaq Capital Market under the symbol "LPTH".

Holders

As of September 9, 2024, we estimate there were approximately 206 holders of record and approximately 10,293 street name holders of our Class A common stock.

Dividends

We have never declared or paid any cash dividends on our Class A common stock and do not intend to pay any cash dividends in the foreseeable future. We currently intend to retain all future earnings in order to finance the operation and expansion of our business. In addition, the payment of dividends, if any, in

the future, will depend on our earnings, capital requirements, financial conditions, and other relevant factors.

Issuer Purchases of Equity Securities

During the year ended June 30, 2024 there were no repurchases of the Company's Class A common stock by the Company.

Item 6. Reserved.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis by our management of our financial condition and results of operations in conjunction with our consolidated financial statements and the accompanying notes.

The following discussion contains forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in the forward-looking statements. Please also see the cautionary language at the beginning of this Annual Report on Form 10-K regarding forward-looking statements.

The following discussions also include use of the non-GAAP term "gross margin," as well as other non-GAAP measures discussed in more detail under the heading "Non-GAAP Financial Measures." Gross margin is determined by deducting the cost of sales from operating revenue. Cost of sales includes manufacturing direct and indirect labor, materials, services, fixed costs for rent, utilities and depreciation, and variable overhead. Gross margin should not be considered an alternative to operating income or net income, both of which are determined in accordance with GAAP. We believe that gross margin, although a non-GAAP financial measure, is useful and meaningful to investors as a basis for making investment decisions. It provides investors with information that demonstrates our cost structure and indicates the amount of funds available to cover our total costs and expenses. We use gross margin in measuring the performance of our business and have historically analyzed and reported gross margin information publicly. Other companies may calculate gross margin in a different manner.

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Effect of Certain Events Occurring at Our Chinese Subsidiaries

In April 2021, we terminated several employees of our China subsidiaries, LPOIZ and LPOI, including the General Manager, the Sales Manager, and the Engineering Manager, after determining that they had engaged in malfeasance and conduct adverse to our interests, including efforts to misappropriate certain of our proprietary technology, diverting sales to entities owned or controlled by these former employees and other suspected acts of fraud, theft and embezzlement. In connection with such terminations, our China subsidiaries have engaged in certain legal proceedings with the terminated employees.

We incurred various expenses associated with our investigation into these matters prior and subsequent to the termination of the employees and the associated legal proceedings. These expenses, which included legal, consulting and other transitional management fees, totaled \$718,000 and \$400,000 during the years ended June 30, 2021 and 2022, respectively. During the years ended June 30, 2024 and 2023, expenses incurred related to the legal proceedings were immaterial. Such expenses were recorded as "Selling, general and administrative" expenses in the accompanying Consolidated Statements of Comprehensive Income (Loss). In December 2023, the Company recovered approximately \$190,000 in funds that had been recovered by the Chinese authorities, which is included in Other income in the accompanying Consolidated Statements of Comprehensive Income (Loss) for the year ended June 30, 2024. We do not expect to incur additional legal fees or consulting expenses in future periods as we have exhausted nearly all of our legal options and remedies.

Knowing that employee transitions in international subsidiaries can lead to lengthy and expensive legal proceedings that can interrupt the subsidiary's ability to operate, we chose to enter into severance agreements with certain of the employees at the time of termination. Pursuant to the severance agreements, LPOIZ and LPOI agreed to pay such employees severance of approximately \$485,000 in the aggregate, to be paid over a six-month period. After the execution of the severance agreements, we discovered additional wrongdoing by the terminated employees. As a result, LPOIZ and LPOI did not immediately pay the severance payments and disputed the employees' rights to such payments. However, based on the likelihood that the courts in China will determine that our subsidiaries would ultimately be obligated to pay these amounts, we have accrued for these payments as of June 30, 2021. As of June 30, 2022, approximately \$430,000 remained accrued. The Chinese Labor Court ruled in favor of the former employees, as expected, and these severance payments were paid out during the first half of fiscal year 2023.

We have transitioned the management of LPOI and LPOIZ to a new management team without any significant detrimental effects on their ability to operate. We have not experienced any material adverse impact to the business operations of LPOI or LPOIZ as a result of the transition.

Results of Operations

Operating Results for Fiscal Year Ended June 30, 2024 compared to the Fiscal Year Ended June 30, 2023:

Revenue.

Revenue for fiscal year 2024 was approximately \$31.7 million, a decrease of 4%, as compared to \$32.9 million in fiscal year 2023. Revenue generated by the infrared components product group was approximately \$14.1 million in fiscal year 2024, a decrease of 2%, as compared to the prior fiscal year. The decrease in revenue is related to a decrease in shipments against a germanium-based annual contract that was not renewed, which decrease was mostly offset by an increase in shipments against an annual contract for an international military program.

Revenue generated by the visible components product group was approximately \$11.2 million for fiscal year 2024, a decrease of 16%, as compared to the prior fiscal year. The decrease in revenue is primarily due to a decrease in sales to customers in the defense industry, as well as a decrease in sales through catalog and distribution channels in the U.S. and in Europe. Sales to customers in the telecommunications industry in China also decreased by approximately 40%.

Revenue from the assemblies and modules product group was approximately \$4.5 million in fiscal year 2024, a decrease of approximately 5% as compared to fiscal year 2023, primarily due to a decrease in shipments against a multi-year contract with a defense customer due to timing, as well as decreases in

sales to certain industrial customers, particularly in China. These decreases were partially offset by the addition of Visimid revenue of approximately \$900,000.

Revenue from engineering services increased by \$1.5 million for fiscal 2024, as compared to the same period of the prior fiscal year. Approximately \$1.4 million of this increase is due to the addition of Visimid revenue, primarily driven by Visimid's contract with Lockheed Martin, where revenue is generally recognized based on the achievement of milestones. The remaining increase is driven by revenue from one of our space-related funded research contracts.

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Cost of Sales and Gross Margin.

Gross margin for fiscal year 2024 was approximately \$8.6 million, a decrease of 22%, as compared to approximately \$11.1 million in fiscal year 2023. Total cost of sales was approximately \$23.1 million for fiscal year 2024, compared to \$21.9 million for fiscal year 2023, an increase of 6%. Gross margin as a percentage of revenue was 27% for fiscal year 2024 as compared to 34% for fiscal year 2023. The decrease in gross margin as a percentage of revenue is primarily due to the decrease in visible components sales, which typically have higher margins than our infrared components product group. Our infrared components product group comprised a greater portion of our sales for fiscal year 2024. In addition, gross margin as a percentage of revenue for the fiscal year 2024 was unfavorably impacted by the revaluation of inventory during the third quarter of fiscal 2024. The revaluation resulted in a net write-down of inventory.

Selling, General and Administrative.

For fiscal year 2024, Selling, General and Administrative ("SG&A") costs were approximately \$12.3 million, an increase of approximately \$860,000, or 8%, as compared to the prior fiscal year. The increase in SG&A for fiscal year 2024 is primarily due to an increase in wages, including non-recurring executive severance costs of \$136,000, and an increase in legal and consulting fees related to business development initiatives. These increases are partially offset by a decrease in stock-based compensation, whereas fiscal year 2023 included increased stock compensation costs associated with two director retirements. We also incurred additional legal and professional fees in the fiscal year 2024 associated with our rescheduled annual stockholder meeting and previously disclosed Delaware chancery court proceedings. We expect SG&A costs to remain elevated for the next several quarters as we continue with certain business development initiatives.

New Product Development.

New product development costs were approximately \$2.4 million in fiscal year 2024, an increase of approximately 12% as compared to the prior fiscal year. These increases are primarily due to the addition of engineering personnel as a result of the Visimid acquisition, as well as an increase in materials and outside services utilized for development projects, including additional product offerings following the MANTIS reference design camera which we began developing in fiscal year 2023.

Amortization of Intangibles.

Amortization of intangibles increased by \$510,000 for fiscal year 2024, as compared to the prior fiscal year, due to the amortization of identifiable intangible assets associated with the Visimid acquisition. See Note 3, *Acquisition of Visimid*, in the Consolidated Financial Statements included in this Annual Report on Form 10-K, for further information.

Other Expense.

Interest expense was approximately \$192,000 for fiscal year 2024, compared to approximately \$283,000 in the prior fiscal year. The decrease in interest expense is due to the 59% reduction in our total debt, including finance lease obligations, and excluding operating lease liabilities, as of June 30, 2024, as compared to the end of the prior fiscal year.

Other income, net, was approximately \$79,000 for fiscal year 2024, compared to \$25,000 for fiscal year 2023. Other income, net, for fiscal year 2024 includes a gain of \$190,000 for the return of funds previously misappropriated by our former Chinese management team, as a result of the ongoing legal proceedings described in Note 15, *Contingencies*, in the Consolidated Financial Statements included in this Annual Report on Form 10-K. This gain was largely offset by expenses of \$183,000 associated with an event of default by a sub-tenant of a portion of our Orlando Facility lease. Other income, net also includes net foreign currency transaction gains and losses. We execute all foreign sales from our U.S. facilities and inter-company transactions in U.S. dollars, partially mitigating the impact of foreign currency fluctuations. Assets and liabilities denominated in non-United States currencies, primarily the Chinese Yuan and Euro, are translated at rates of exchange prevailing on the balance sheet date, and revenues and expenses are translated at average rates of exchange for the year. During fiscal year 2024, we incurred net foreign currency transaction gains of approximately \$73,000, compared to net foreign currency transaction losses of \$37,000 for fiscal year 2023.

Income Taxes.

During fiscal year 2024, we recorded income tax expense of approximately \$67,000, compared to approximately \$234,000 in fiscal year 2023, primarily related to our operations in China. Income taxes for fiscal years 2024 and 2023 include Chinese withholding tax expenses of \$170,000 and \$235,000, respectively, the majority of which are associated with intercompany dividends declared by LPOIZ, payable to us as the parent company. While these repatriation transactions result in some additional Chinese withholding taxes, LPOIZ currently qualifies for a reduced Chinese income tax rate; therefore, the total tax on those earnings was still below the normal income tax rate. Income tax expense for fiscal years 2024 and 2023 are also offset by deferred income tax benefits from the turnaround of temporary differences, and increased by deferred income tax expense related to certain indefinite lived temporary differences. Please refer to Note 9, *Income Taxes*, in the Notes to the Consolidated Financial Statements in this Annual Report on Form 10-K for additional information related to each of our tax jurisdictions.

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Net Income (Loss).

Net loss for fiscal year 2024 was approximately \$8.0 million, or \$0.21 basic and diluted loss per share, compared to approximately \$4.0 million, or \$0.13 basic and diluted loss per share, for fiscal year 2023. The increase in net loss for fiscal year 2024, as compared to fiscal year 2023, is attributable to the approximately \$4.3 million increase in operating loss resulting from lower revenue and gross margin and increased operating expenses. This loss increase

was partially offset by a decrease in other expense, net, of approximately \$145,000, primarily due to the decrease in interest expense. In addition, there was a favorable difference of approximately \$167,000 in the provision for income taxes for fiscal year 2024 as compared to fiscal year 2023.

Weighted-average common stock shares outstanding were 37,944,935 for both basic and diluted in fiscal year 2024, compared to 31,637,445 for both basic and diluted in fiscal year 2023. The increase in the weighted-average basic common shares was primarily due to the sale of an aggregate of 9,090,910 shares of Class A common stock pursuant to a public offering which closed January 17, 2023, as well as the 585,483 shares issued during the second half of fiscal year 2024 pursuant to the at-the-market equity program. The increase is also attributable to the shares of Class A common stock issued in conjunction with the acquisition of Visimid, as well as the issuance of shares of Class A common stock under the 2014 ESPP and underlying vested RSUs and RSAs. Potential dilutive common stock equivalents were excluded from the calculation of diluted shares for fiscal years 2024 and 2023, as their effects would have been anti-dilutive due to the net loss in those periods.

Liquidity and Capital Resources

At June 30, 2024, we had working capital of approximately \$7.5 million and total cash and cash equivalents of approximately \$3.5 million. Less than 50% of our total cash, cash equivalents and restricted cash was held by our foreign subsidiaries in China and Latvia. Cash and cash equivalents held by our foreign subsidiaries in China and Latvia were generated in-country as a result of foreign earnings. Historically, we considered unremitted earnings held by our foreign subsidiaries to be permanently reinvested. However, during fiscal year 2020, we began declaring intercompany dividends to remit a portion of the earnings of our foreign subsidiaries to us, as the U.S. parent company. It is still our intent to reinvest a significant portion of earnings generated by our foreign subsidiaries, however we also plan to repatriate a portion of their earnings.

In China, before any funds can be repatriated, the retained earnings of the legal entity must equal at least 50% of the registered capital. During fiscal years 2024 and 2023, we repatriated approximately \$1.4 million and \$1.9 million, respectively, from LPOIZ. As of June 30, 2024, LPOIZ had approximately \$1.6 million in retained earnings available for repatriation, and LPOI did not have any earnings available for repatriation, based on earnings accumulated through December 31, 2023, the end of the most recent statutory tax year, that remained undistributed as of June 30, 2024. Based on our previous intent, we had not historically provided for future Chinese withholding taxes on the related earnings. However, during fiscal year 2020 we began to accrue for these taxes on the portion of earnings that we intend to repatriate.

Loans payable as of June 30, 2024 consisted of two equipment loans (as defined below). As of June 30, 2023, loans payable consisted of the term loan in the original principal amount of approximately \$5.8 million (the “BankUnited Term Loan”) issued in favor of BankUnited, N.A. (“BankUnited”) and two third-party equipment loans. Details of the loans are as follows:

Equipment Loans.

In December 2020, ISP Latvia entered into an equipment loan with a third party (the “2020 Equipment Loan”), which is also a customer. The 2020 Equipment Loan is subordinate to the Term Loan and is collateralized by certain equipment. The initial advance under the 2020 Equipment Loan was 225,000 EUR (or USD \$275,000), payable in equal installments over 60 months, the proceeds of which were used to make a prepayment to a vendor for equipment to be delivered at a future date. The 2020 Equipment Loan bears interest at a fixed rate of 3.3%. An additional 225,000 EUR (or USD \$267,000) was drawn in September 2021, which proceeds were paid to the vendor for the equipment, payable in equal installments over 52 months. As of June 30, 2024, the outstanding balance on the 2020 Equipment Loan was 138,750 EUR (or USD \$148,532).

In May 2023, ISP Latvia entered into an equipment loan with a third party financial institution (the “2023 Equipment Loan”). The 2023 Equipment Loan is collateralized by certain equipment. The initial advance under the 2023 Equipment Loan was 128,815 EUR (or USD \$141,245), the proceeds of which were used to make a prepayment to a vendor for equipment to be delivered at a future date. The final advance for the final payment to the equipment vendor was 132,674 EUR (or USD \$141,815). The 2023 Equipment Loan is payable over 48 months, with monthly installments beginning January 1, 2024. The 2023 Equipment Loan bears interest at the six-month EURIBOR rate, plus 2.84% (6.39% as of June 30, 2024).

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BankUnited Loans.

On February 26, 2019, we entered into a Loan Agreement (the “Loan Agreement”) with BankUnited for (i) a revolving line of credit up to a maximum amount of \$2,000,000 (the “Revolving Line”), (ii) a term loan in the amount of up to \$5,813,500 (“Term Loan”), and (iii) a non-revolving guidance line of credit up to a maximum amount of \$10,000,000 (the “Guidance Line” and, together with the Revolving Line and Term Loan, the “BankUnited Loans”) as evidenced by certain promissory notes we executed in favor of BankUnited (the “BankUnited Notes”). Pursuant to that certain Fifth Amendment to the Loan Agreement dated May 9, 2023, the Term Loan, the only remaining BankUnited Loan, was paid in full in February 2024, prior to its maturity date of December 31, 2024.

For additional information regarding the BankUnited Loans and the equipment loans, see Note 14, *Loans Payable*, to the Notes to the Consolidated Financial Statements to this Annual Report on Form 10-K.

Bridge Promissory Note

On August 6, 2024, we entered into a bridge promissory note (the “Note”) with Lytton-Kambara Foundation (the “Lender”) pursuant to which the Lender extended a loan to us in the principal amount of \$3,000,000 (the “Loan”). The Loan is subject to an original issue discount of 7% and bears interest at the rate of 12.5% per annum. The Loan has a 1-year term, maturing on August 6, 2025, at which time the entire principal amount of the Loan and all accrued but unpaid interest is due and payable in full. After deducting the original issue discount, fees paid to the Company’s placement agent, and certain expenses, the Company received net proceeds of \$2,700,000. For additional information regarding this note, see Note 19, *Subsequent Events*, in the Notes to the Consolidated Financial Statements of this Annual Report on Form 10-K.

Equity Financing.

In February 2022, we filed a shelf registration statement to facilitate the issuance of our Class A common stock, warrants exercisable for shares of our Class A common stock, and/or units up to an aggregate offering price of \$75.8 million from time to time. In connection with the filing of the shelf

registration statement, we also included a prospectus supplement relating to an at-the-market equity program under which we may issue and sell shares of our Class A common stock up to an aggregate offering price of \$25.2 million from time to time, decreasing the aggregate offering price available under our shelf registration statement to \$50.6 million. The shelf registration statement was declared effective by the SEC on March 1, 2022. During the year ended June 30, 2024, we issued 585,483 shares of our Class A common stock pursuant to the at-the-market equity program.

On January 12, 2023, the Company entered into a securities purchase agreement (“Purchase Agreement”), pursuant to which the Company agreed to issue and sell in a public offering under the shelf registration statement an aggregate of 9,090,910 shares of the Company’s Class A common stock, par value \$0.01 per share for a purchase price of \$1.10 per share and filed a prospectus supplement with the SEC related thereto. The sale of shares pursuant to the Purchase Agreement closed on January 17, 2023, and resulted in net proceeds of approximately \$9.2 million after payment of placement agent fees, and certain other costs and expenses of the offering.

There are a number of factors that could result in the need to raise additional funds in the longer term, including a decline in revenue or a lack of anticipated sales growth, increased material costs, increased labor costs, planned production efficiency improvements not being realized, increases in property, casualty, benefit and liability insurance premiums, and increases in other costs. In addition, greater than 25% of our cash and cash equivalents was held by our foreign subsidiaries as of June 30, 2024 and, although we regularly repatriate cash, it may not be readily available to repay our liabilities in the U.S. should our cash assets in the U.S. not be sufficient. We may also identify opportunities for acquisitions and other strategic transactions to expand and further enhance our business that may require that we raise additional capital should we elect to pursue any of such transactions.

We intend to continue efforts to keep costs under control as we seek renewed sales growth. Our efforts are directed toward generating positive cash flow and profitability. If these efforts are not successful, we may need to raise additional capital. Should capital not be available to us at reasonable terms, other actions may become necessary in addition to cost control measures and continued efforts to increase sales. These actions may include the sale of certain product lines, the creation of joint ventures or strategic alliances under which we will pursue business opportunities, the creation of licensing arrangements with respect to our technology, or other alternatives.

Cash Flows – Operating.

Cash provided by operations was approximately \$0.5 million for fiscal year 2024, compared to cash used in operations of approximately \$2.8 million for fiscal year 2023. The increase in cash flows from operations during fiscal year 2024 is primarily due decreases in accounts receivable and inventory, due to lower sales in fiscal year 2024, as compared to fiscal year 2023. Cash used in operations for fiscal year 2023 was primarily due to an increase in accounts receivable, due to higher sales in the fourth quarter of fiscal year 2023 as compared to fiscal 2022, and an increase in inventory during the second half of fiscal year 2023. The cash outflow for accounts payable and accrued liabilities for fiscal year 2023 was largely due to the previously described events that occurred at our Chinese subsidiaries, for which certain expenses were accrued as of June 30, 2021 and paid during fiscal years 2022 and 2023. During fiscal year 2023 we also made the final installment payment for payroll taxes deferred in fiscal year 2020 under the CARES Act.

We anticipate continued improvement in our cash flows provided by operations in future years, as many of these non-recurring payables are behind us, and as we continue to focus on managing our receivables, payables and inventory, while continuing to grow our sales and improve gross margins, with moderate increases in general, administrative, sales and marketing and new product development costs.

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Cash Flows – Investing.

During fiscal year 2024, we expended approximately \$2.2 million for capital equipment, as compared to approximately \$3.1 million during fiscal year 2023. We also expended approximately \$847,000, net of cash acquired, to acquire Visimid during fiscal year 2024, as disclosed in Note 3, *Acquisition of Visimid Technologies*, in the Consolidated Financial Statements in this Annual Report on Form 10-K. Fiscal year 2024 also reflects proceeds of approximately \$365,000 from sale-leasebacks of equipment. During fiscal years 2024 and 2023, our capital expenditures were primarily related to the expansion of our Orlando Facility. In August 2023, we completed the construction of certain tenant improvements subject to our continuing lease for our Orlando Facility, of which the landlord provided \$2.4 million in tenant improvement allowances. We funded the balance of the tenant improvement costs of approximately \$3.7 million over fiscal years 2023 and 2024.

We anticipate a moderate level of capital expenditures during fiscal year 2025; however, the total amount expended will depend on sales growth opportunities and other circumstances.

Cash Flows – Financing.

Net cash used in financing activities was approximately \$1.5 million, compared to cash provided by financing activities of approximately \$7.5 million in fiscal year 2023. Cash used in financing activities for fiscal year 2024 reflects approximately \$2.6 million in principal payments on our loans and finance leases, offset by \$279,000 in proceeds from the 2023 Equipment Loan, \$806,000 in proceeds from the sale of Class A common stock pursuant to the at-the-market equity program and \$40,000 in proceeds from the sale of Class A common stock under the 2014 ESPP. Cash provided by financing activities for fiscal year 2023 reflects equity proceeds of \$9.2 million from a public offering of Class A common stock, which closed in January 2023, offset by approximately \$1.9 million in principal payments on our loans and finance leases, offset by proceeds of approximately \$141,000 from the 2023 Equipment Loan and approximately \$40,000 in proceeds from the sale of Class A common stock under the 2014 ESPP.

How We Operate

We have continuing sales of two basic types: sales via ad-hoc purchase orders of mostly standard product configurations (our “turns” business) and the more challenging and potentially more rewarding business of customer product development. In this latter type of business, we work with customers to help them determine optical specifications and even create certain optical designs for them, including complex multi-component, optical system or sub-system designs that we call “engineered solutions.” This is followed by “sampling” or prototyping small numbers of the product for the customers’ test and evaluation. Thereafter, should a customer conclude that our specification or design is the best solution to their product need; we negotiate and “win” a contract (sometimes called a “design win”) – whether of a “blanket purchase order” type or a supply agreement. The strategy is to create an annuity revenue stream that makes the best use of our production capacity and longer-term revenue planning, as compared to the turns business, which is unpredictable and uneven. A key business objective is to convert as much of our business to the design win and annuity model as is possible. We face several challenges in doing so:

- Maintaining an optical design and new product sampling capability, including a high-quality and responsive optical design engineering staff;

- The fact that as our customers take products of this nature into higher volume, commercial production they begin to work seriously to reduce costs – which may lead them to turn to larger producers, domestic or overseas, even if sacrificing quality; and
- Our small business mass means that we can only offer a moderate amount of total productive capacity before we reach financial constraints imposed by the need to make additional capital expenditures – in other words, because of our limited cash resources and cash flow, we may not be able to service every opportunity that presents itself in our markets without arranging for such additional capital expenditures.

Despite these challenges to winning more “annuity” business, we nevertheless believe we can be successful in procuring this business because of our unique capabilities in optical design engineering that we make available on the market to our current and potential customers looking for specific solutions to their needs. Additionally, we believe that we offer value to some customers as a source of supply in the U.S. should they be unwilling to commit to purchase their supply of critical component(s) from foreign sources. For information regarding revenue recognition related to our various revenue streams, refer to *Critical Accounting Policies and Estimates* in this Annual Report on Form 10-K.

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Our Key Performance Indicators

Usually on a weekly basis, management reviews several performance indicators. Some of these indicators are qualitative and others are quantitative. These indicators change from time to time as the opportunities and challenges in the business change. They are mostly non-financial indicators, such as units of shippable output by product line, production yield rates by major product line, and the output and yield data from significant intermediary manufacturing processes that support the production of the finished shippable product. These indicators can be used to calculate such other related indicators as fully yielded unit production per-shift, which varies by the product and our state of automation in production of that product at any given time. Higher unit production per shift means lower unit cost, and, therefore, improved margins or improved ability to compete, where desirable, for price sensitive customer applications. The data from these reports is used to determine tactical operating actions and changes. We believe that our non-financial production indicators, such as those noted, are proprietary information.

Financial indicators that are usually reviewed at the same time include the major elements of the micro-level business cycle:

- sales backlog;
- revenue by product group;
- inventory levels;
- accounts receivable levels and quality;
- EBITDA; and
- other key indicators.

These indicators are similarly used to determine tactical operating actions and changes and are discussed in more detail below. Management will evaluate these key indicators as we transition to our new strategic plan to determine whether any changes or updates to our key indicators are warranted.

Sales Backlog.

We believe sales growth has been and continues to be our best indicator of success. Our best view into the efficacy of our sales efforts is in our “order book.” Our order book equates to sales “backlog.” It has a quantitative and a qualitative aspect: quantitatively, our backlog’s prospective dollar value and qualitatively, what percent of the backlog is scheduled by the customer for date-certain delivery. We evaluate our total backlog, which includes all firm orders requested by a customer that are reasonably believed to remain in the backlog and be converted into revenues. This includes customer purchase orders and may include amounts under supply contracts if they meet the aforementioned criteria. Generally, a higher total backlog is better for us.

Quarterly backlog levels for fiscal years 2024 and 2023 are as follows:

Quarter	Total Backlog (\$ 000)	Change From Prior Year End	Change From Prior Quarter End
Q1 2023	\$ 22,973	29%	29%
Q2 2023	\$ 29,427	66%	28%
Q3 2023	\$ 26,620	50%	-10%
Q4 2023	\$ 21,652	22%	-19%
Q1 2024	\$ 21,303	-2%	-2%
Q2 2024	\$ 21,220	-2%	0%
Q3 2024	\$ 21,967	1%	4%
Q4 2024	\$ 19,268	-11%	-12%

The decrease in backlog during fiscal year 2024 as compared fiscal year 2023 is primarily due to shipments against the prior period backlog under several annual and multi-year contract renewals. The timing of multi-year contract renewals are not always consistent and, thus, backlog levels may increase substantially when annual and multi-year orders are received, and decrease as shipments are made against these orders. We anticipate that our existing annual and multi-year contracts will be renewed in future quarters. The reduction in backlog as a result of these shipments during fiscal year 2024 were partially offset by the following: (i) a significant contract renewal for advanced infrared optics for a critical international military program, which renewal represented a 40% increase in dollar value as compared to the previous order; and (ii) a significant contract awarded to Visimid by Lockheed Martin in December 2023. In previous years we have typically received a significant contract renewal from a key customer for infrared products made of Germanium during the second fiscal quarter. However, as previously disclosed we have decided to reduce the amount of optics we produce from Germanium, both to

reduce our risk of supply chain disruption, and more importantly, to work with customers to convert their systems to use optics made of our own BlackDiamond materials. As such, in the second quarter of fiscal 2024 we did not book our typical annual renewal order for Germanium optics with this customer. Instead, we continue to work with this customer, as well as other customers, to convert their systems to use BlackDiamond optics.

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Markets continue to experience growing demand for infrared products used in the industrial, defense and first responder sectors. Demand for infrared products continues to be fueled by interest in lenses made with our proprietary BD6 and our new BDNL-4 materials. With the global supply of germanium currently concentrated in Russia and China, recent global events are generating renewed interest in germanium alternatives such as our proprietary BlackDiamond materials, and other materials we are currently developing under an exclusive license with the Naval Research Lab.

As we have outlined in our strategic direction, we do not expect to see significant growth in our visible components product group in the near future. Competition in that product line has grown substantially over the last few years, and some of our new molding capabilities and technologies such as free-form molded optics, might take longer than anticipated to reach full commercialization, depending on economic conditions and technology trends in the area of AR\VR.

In addition, order bookings for both visible and infrared components and assemblies continue to be slow in China. Domestic sales in China have also been adversely impacted by the economic downturn in China, which continues to negatively impact revenue and bookings in that region.

Revenue by Product Group.

The following table sets forth revenue dollars and units by our three product groups for the three months and year ended June 30, 2024 and 2023:

	(unaudited)					
	Three Months Ended June 30,		Quarter % Change	Year Ended June 30,		Year-to- date % Change
	2024	2023		2024	2023	
Revenue						
Infrared components	\$ 3,043,148	\$ 4,769,363	-36%	\$ 14,089,277	\$ 14,392,960	-2%
Visible components	3,178,023	3,189,957	0%	11,233,737	13,438,814	-16%
Assemblies and modules	1,373,178	1,595,098	-14%	4,451,165	4,680,354	-5%
Engineering services	1,039,783	130,303	698%	1,952,013	421,821	363%
Total revenue	<u>\$ 8,634,132</u>	<u>\$ 9,684,721</u>	<u>-11%</u>	<u>\$ 31,726,192</u>	<u>\$ 32,933,949</u>	<u>-4%</u>

Three months ended June 30, 2024 compared to three months ended June 30, 2023.

Our revenue decreased by 11% in the fourth quarter of fiscal year 2024, as compared to the same quarter of the prior fiscal year, driven by decreases in infrared components and assemblies and modules, partially offset by an increase in engineering services.

Revenue generated by the infrared components product group for the fourth quarter of fiscal year 2024 was \$3.0 million, a decrease of 36%, as compared to the same quarter of the prior fiscal year. The decrease in revenue is primarily due to a decrease in sales against a large annual contract for Germanium-based products, which was not renewed in the second quarter of fiscal year 2024, as we have decided to reduce the amount of optics we produce from Germanium, both to reduce our risk of supply chain disruption, and more importantly, to work with customers to convert their systems to use optics made of our own BlackDiamond materials. We continue to work with this customer, as well as other customers to convert their systems to use BlackDiamond optics. In addition, several other customers had timing differences with larger shipments in the fourth quarter of fiscal year 2023. These decreases were partially offset by an increase in shipments against an annual contract for an international military program.

Revenue from the visible components product group for the fourth quarter of fiscal year 2024 was \$3.2 million, or flat in comparison to the same quarter of the prior fiscal year. By industry, there was a decrease in sales to defense customers due to timing of orders, and an increase in sales through U.S. catalog and distribution channels.

Revenue from assemblies and modules decreased by 14% for the fourth quarter of fiscal 2024, as compared to the same quarter of the prior fiscal year. The majority of the decrease is due to sales of a custom visible lens assembly to a medical customer, for which we have an end of life order in backlog going into fiscal 2025. In the fourth quarter of fiscal year 2023, this customer requested a greater number of units shipped, whereas in fiscal year 2024 we have shipped a lower but more consistent amount each quarter. Another portion of the decrease is due to timing of shipments against a multi-year contract with a defense customer. These decreases were partially offset by the addition of Visimid revenue of approximately \$397,000.

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Revenue from engineering services increased \$0.9 million, for the fourth quarter of fiscal 2024, as compared to the same quarter of the prior fiscal year. This increase was primarily driven by Visimid's contract with Lockheed Martin, where revenue is generally recognized based on the achievement of milestones.

Year ended June 30, 2024 compared to year ended June 30, 2023.

Our revenue decreased by approximately 4%, for fiscal year 2024, as compared to fiscal year 2023, primarily driven by a decrease in sales of visible components, partially offset by an increase in engineering services.

Revenue generated by the infrared components product group for fiscal year 2024 was \$14.1 million, a decrease of approximately 2%, as compared to the prior fiscal year. The decrease in revenue related to the germanium-based annual contract that was not renewed was mostly offset by an increase in shipments against an annual contract for an international military program. This contract was renewed during the first quarter of fiscal 2024 for a higher dollar value than the previous contract.

Revenue from the visible components product group for fiscal year 2024 was \$11.2 million, a decrease of 16%, as compared to fiscal year 2023. The decrease in revenue is primarily due to a decrease in sales to customers in the defense industry, as well as a decrease in sales through catalog and distribution channels in the U.S. and in Europe. Sales to customers in the telecommunications industry in China also decreased by approximately 40%.

Revenue from assemblies and modules for fiscal year 2024 was \$4.5 million, a decrease of 5%, as compared to the same period of the prior fiscal year, primarily due to a decrease in shipments against a multi-year contract with a defense customer due to timing, as well as decreases in sales of infrared assemblies to industrial customers in China and the U.S. Customers in both regions have been steadily decreasing orders since the peak of COVID-19. These decreases were partially offset by the addition of Visimid revenue of approximately \$900,000.

Revenue from engineering services increased by \$1.5 million for fiscal year 2024, as compared to the same period of the prior fiscal year. Approximately \$1.4 million of this increase is due to the addition of Visimid revenue, primarily driven by Visimid's contract with Lockheed Martin, where revenue is generally recognized based on the achievement of milestones. The remaining increase is driven by revenue from one of our space-related funded research contracts.

Inventory Levels.

We manage inventory levels to minimize investment in working capital but still have the flexibility to meet customer demand to a reasonable degree. We review our inventory for obsolete items quarterly. While the mix of inventory is an important factor, including adequate safety stocks of long lead-time materials, an important aggregate measure of inventory in all phases of production is the quarter's ending inventory expressed as a number of days' worth of the quarter's cost of sales, also known as "days cost of sales in inventory," or "DCSI." It is calculated by dividing the quarter's ending inventory by the quarter's cost of goods sold, multiplied by 365 and divided by 4. Generally, a lower DCSI measure equates to a lesser investment in inventory, and, therefore, more efficient use of capital. The table below shows our DCSI for the immediately preceding eight fiscal quarters:

Fiscal Quarter	Ended	DCSI (days)
Q4-2024	6/30/2024	98
Q3-2024	3/31/2024	98
Q2-2024	12/31/2023	133
Q1-2024	9/30/2023	119
Fiscal Year 2024 Average		112
Q4-2023	6/30/2023	102
Q3-2023	3/31/2023	154
Q2-2023	12/31/2022	120
Q1-2023	9/30/2022	125
Fiscal Year 2023 Average		125

Our average DCSI for fiscal year 2024 was 112, compared to 125 for fiscal year 2023. The decrease in average DCSI is driven by the decrease in inventory levels, which aligns with the decrease in sales. We expect DCSI to maintain an average of between 110 to 120.

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Accounts Receivable Levels and Quality.

Similarly, we manage our accounts receivable to minimize investment in working capital. We measure the quality of receivables by the proportions of the total that are at various increments past due from our normally extended terms, which are generally 30 days. The most important aggregate measure of accounts receivable is the quarter's ending balance of net accounts receivable expressed as a number of days' worth of the quarter's net revenues, also known as "days sales outstanding," or "DSO." It is calculated by dividing the quarter's ending net accounts receivable by the quarter's net revenues, multiplied by 365 and divided by 4. Generally, a lower DSO measure equates to a lesser investment in accounts receivable and, therefore, more efficient use of capital. The table below shows our DSO for the preceding eight fiscal quarters:

Fiscal Quarter	Ended	DSO (days)
Q4-2024	6/30/2024	52
Q3-2024	3/31/2024	55
Q2-2024	12/31/2023	59
Q1-2024	9/30/2023	57
Fiscal Year 2024 Average		56
Q4-2023	6/30/2023	63
Q3-2023	3/31/2023	59
Q2-2023	12/31/2022	52
Q1-2023	9/30/2022	57
Fiscal Year 2023 Average		58

Our average DSO for fiscal year 2024 was 56, compared to 58 for fiscal year 2023. The decrease in average DSO for fiscal year 2024 is driven by decreases in revenue from some key accounts with longer payment cycles, which revenue has been largely replaced by customer accounts with shorter payment cycles. In addition, we continue to focus on collections. We strive to maintain a DSO of less than 60.

Other Key Indicators.

Other key indicators include various operating metrics, some of which are qualitative and others are quantitative. These indicators change from time to time as the opportunities and challenges in the business change. They are mostly non-financial indicators, such as on time delivery trends, units of shippable output by major product line, production yield rates by major product line, and the output and yield data from significant intermediary manufacturing processes that support the production of the finished shippable product. These indicators can be used to calculate such other related indicators as fully-yielded unit production per-shift, which varies by the particular product and our state of automation in production of that product at any given time. Higher

unit production per shift means lower unit cost, and, therefore, improved margins or improved ability to compete where desirable for price sensitive customer applications. The data from these reports is used to determine tactical operating actions and changes. Management also assesses business performance and makes business decisions regarding our operations using certain non-GAAP measures. These non-GAAP measures are described in more detail below under the heading “Non-GAAP Financial Measures”.

Non-GAAP Financial Measures

We report our historical results in accordance with GAAP; however, our management also assesses business performance and makes business decisions regarding our operations using certain non-GAAP financial measures. We believe these non-GAAP financial measures provide useful information to management and investors that is supplementary to our financial condition and results of operations computed in accordance with GAAP; however, we acknowledge that our non-GAAP financial measures have a number of limitations. As such, you should not view these disclosures as a substitute for results determined in accordance with GAAP, and they are not necessarily comparable to non-GAAP financial measures that other companies use.

EBITDA.

EBITDA is a non-GAAP financial measures used by management, lenders, and certain investors as a supplemental measure in the evaluation of some aspects of a corporation’s financial position and core operating performance. Investors sometimes use EBITDA as it allows for some level of comparability of profitability trends between those businesses differing as to capital structure and capital intensity by removing the impacts of depreciation and amortization. EBITDA also does not include changes in major working capital items, such as receivables, inventory, and payables, which can also indicate a significant need for, or source of, cash. Since decisions regarding capital investment and financing and changes in working capital components can have a significant impact on cash flow, EBITDA is not a good indicator of a business’s cash flows. We use EBITDA for evaluating the relative underlying performance of our core operations and for planning purposes. We calculate EBITDA by adjusting net income to exclude net interest expense, income tax expense or benefit, depreciation, and amortization, thus the term “Earnings Before Interest, Taxes, Depreciation and Amortization” and the acronym “EBITDA.”

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The following table adjusts net income to EBITDA for the three months and year ended June 30, 2024 and 2023:

	(unaudited)			
	Three Months Ended June 30,		Year Ended June 30,	
	2024	2023	2024	2023
Net loss	\$ (2,353,773)	\$ (808,840)	\$ (8,007,346)	\$ (4,046,871)
Depreciation and amortization	1,062,559	815,019	4,048,409	3,174,569
Income tax provision	(53,912)	11,618	67,490	234,034
Interest expense	42,814	54,561	191,862	283,266
EBITDA	<u>\$ (1,302,312)</u>	<u>\$ 72,358</u>	<u>\$ (3,699,585)</u>	<u>\$ (355,002)</u>
% of revenue	-15%	1%	-12%	-1%

Our EBITDA for the quarter ended June 30, 2024 was a loss of approximately \$1.3 million, compared to income of \$0.1 million for the same period of the prior fiscal year. The decrease in EBITDA in the fourth quarter of fiscal year 2024 was primarily attributable to the decrease in revenue and gross margin, coupled with increases in SG&A and Other expenses, net, which expense increases primarily related to non-recurring items, including certain business development initiatives.

Our EBITDA for fiscal year 2024 was a loss of approximately \$3.7 million, compared to \$0.4 million for fiscal year 2023. The decrease in EBITDA for fiscal year 2024 is primarily attributable to lower revenue and gross margin, coupled with increased operating expenses, including SG&A and new product development. SG&A for fiscal year 2024 includes a number of non-recurring items, particularly as related to certain business development initiatives.

Off Balance Sheet Arrangements

We do not engage in any activities involving variable interest entities or off balance sheet arrangements.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of income and expense during the reporting periods presented. Our critical estimates include the allowance for trade receivables, which is made up of allowances for bad debts, allowances for obsolete inventory, valuation of compensation expense on stock-based awards and accounting for income taxes. Although we believe that these estimates are reasonable, actual results could differ from those estimates given a change in conditions or assumptions that have been consistently applied. We also have other policies that we consider key accounting policies, such as our policy for revenue recognition, however, the application of these policies does not require us to make significant estimates or judgments that are difficult or subjective.

Management has discussed the selection of critical accounting policies and estimates with our Board, and the Board has reviewed our disclosure relating to critical accounting policies and estimates in this Annual Report on Form 10-K. The critical accounting policies used by management and the methodology for its estimates and assumptions are as follows:

Allowance for credit losses is based on the best estimate of the amount of probable credit losses in existing accounts receivable. We determine the allowance based on historical write-off experience and expected future default probabilities based on our ongoing evaluations of our customers’ financial condition. The allowance consists of an amount identified for specific customers and an amount based on overall estimated exposure. Accounts receivable are customer obligations due under normal trade terms. Recovery of bad debt amounts which were previously written off is recorded as a reduction of bad debt expense in the period the payment is collected. If our actual collection experience changes, revisions to our allowance may be required. After attempts to collect a receivable have failed, the receivable is written off against the allowance. To date, our actual results have been materially consistent with our estimates, and we expect such estimates to continue to be materially consistent in the future.

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Inventory obsolescence allowance is calculated by reserving 100% for items that have not been sold in two years or that have not been purchased in two years. These items, as identified, are allowed for at 100%, as well as allowing 50% for other items deemed to be slow moving within the last twelve months and allowing 25% for items deemed to have low material usage within the last six months. Items of which we have greater than a two-year supply are also reserved at 25% to 100%, depending on usage rates. The parts identified are adjusted for recent order and quote activity to determine the final inventory allowance. To date, our actual results have been materially consistent with our estimates, and we expect such estimates to continue to be materially consistent in the future.

Revenue is generally recognized upon transfer of control, including the risks and rewards of ownership, of products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. The performance obligations for the sale of optical components and assemblies are satisfied at a point in time. We generally bear all costs, risk of loss, or damage and retain title to the goods up to the point of transfer of control of products to customers. Shipping and handling costs are included in the cost of goods sold. Revenues from product development agreements are recognized as performance obligations are met in accordance with the terms of the agreements and upon transfer of control of products, reports or designs to the customer. Product development agreements are generally short term in nature, with revenue recognized upon satisfaction of the performance obligation, and transfer of control of the agreed-upon deliverable. Invoiced amounts for VAT related to sales are posted to the balance sheet and are not included in revenue.

Stock-based compensation is measured at grant date, based on the fair value of the award, and is recognized as an expense over the employee's requisite service period. We estimate the fair value of each stock option as of the date of grant using the Black-Scholes-Merton pricing model. Our directors, officers, and key employees were granted stock-based compensation through our Amended and Restated Omnibus Incentive Plan, as amended (the "Omnibus Plan"), through October 2018 and after that date, the 2018 Stock and Incentive Compensation Plan (the "SICP"). Most options granted under the Omnibus Plan and the SICP vest ratably over two to four years and generally have ten-year contract lives. The volatility rate is based on four-year historical trends in common stock closing prices and the expected term was determined based primarily on historical experience of previously outstanding options. The interest rate used is the U.S. Treasury interest rate for constant maturities. The likelihood of meeting targets for option grants that are performance based are evaluated each quarter. If it is determined that meeting the targets is probable, then the compensation expense will be amortized over the remaining vesting period.

Goodwill and amortizable intangible assets acquired in a business combination are recognized at fair value using generally accepted valuation methods. Purchased intangible assets other than goodwill are amortized over their useful lives unless these lives are determined to be indefinite. Purchased intangible assets are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets, generally two to fifteen years. We periodically reassess the useful lives of intangible assets when events or circumstances indicate that useful lives have significantly changed from the previous estimate. Amortizable intangible assets consist primarily of customer relationships, know-how/trade secrets and trademarks. They are generally valued as the present value of estimated cash flows expected to be generated from the asset using a risk-adjusted discount rate. When determining the fair value of our intangible assets, estimates and assumptions about future expected revenue and remaining useful lives are used. Goodwill and intangible assets are tested for impairment on an annual basis and during the period between annual tests if events or changes in circumstances indicate that the carrying value of goodwill may not be recoverable.

We assess the qualitative factors to determine whether it is more likely than not that the fair value of its reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the goodwill impairment analysis. If we determine that it is more likely than not that its fair value is less than its carrying amount, then the goodwill impairment test is performed. The fair value of the reporting unit is compared to its carrying amount, and if the carrying amount exceeds its fair value, then an impairment charge would be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value, up to the total amount of goodwill allocated to that reporting unit.

Accounting for income taxes requires estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, benefits, and deductions, and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of the recognition of revenue and expense for tax and financial statement purposes. We assessed the likelihood of the realization of deferred tax assets and concluded that a valuation allowance is needed to reserve the amount of the deferred tax assets that may not be realized due to the uncertainty of the timing and amount of taxable income in certain jurisdictions. In reaching our conclusion, we evaluated certain relevant criteria, including the amount of pre-tax income generated during the current and prior two years, as adjusted for non-recurring items, the existence of deferred tax liabilities that can be used to realize deferred tax assets, the taxable income in prior carryback years in the impacted jurisdictions that can be used to absorb net operating losses and taxable income in future years. Our judgments regarding future profitability may change due to future market conditions, changes in U.S. or international tax laws and other factors. These changes, if any, may require material adjustments to these deferred tax assets, resulting in a reduction in net income or an increase in net loss in the period when such determinations are made, which, in turn, may result in an increase or decrease to our tax provision in a subsequent period.

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In the ordinary course of global business, there are many transactions and calculations where the ultimate tax outcome is uncertain. Some of these uncertainties arise as a consequence of cost reimbursement and royalty arrangements among related entities, which could impact our income or loss in each jurisdiction in which we operate. Although we believe our estimates are reasonable, no assurance can be given that the final tax outcome of these matters will not be different than that which is reflected in our historical income tax provisions and accruals. In the event our assumptions are incorrect, the differences could have a material impact on our income tax provision and operating results in the period in which such determination is made. In addition to the factors described above, our current and expected effective tax rate is based on then-current tax law. Significant changes during the year in enacted tax law could affect these estimates.

Impact of recently issued accounting pronouncements that have recently been issued but have not yet been implemented by us are described in Note 2, *Summary of Significant Accounting Policies*, to the Notes to the Consolidated Financial Statements to this Annual Report on Form 10-K, which describes the potential impact that these pronouncements are expected to have on our financial condition, results of operations and cash flows.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

As a Smaller Reporting Company as defined in Rule 12b-2 of the Exchange Act and in item 10(f)(1) of Regulation S-K, we are electing scaled disclosure reporting obligations with respect to this item and therefore are not required to provide the information requested by this Item 7A.

Item 8. Financial Statements and Supplementary Data.

The information required by this Item is incorporated herein by reference to the consolidated financial statements and supplementary data set forth in *Item 15. Exhibits, Financial Statement Schedules* of Part IV of this Annual Report on Form 10-K.

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**

As of the end of the fiscal year ended June 30, 2024, we carried out an evaluation, under the supervision and with the participation of members of our management, including our CEO and our Chief Financial Officer (“CFO”), of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15(b) of the Exchange Act. Our CEO and our CFO have concluded, based on their evaluation, that as of June 30, 2024, our disclosure controls and procedures were effective at the end of the fiscal year to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit with the SEC under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC’s rules and forms and is accumulated and communicated to our management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Internal control over financial reporting is a process, including policies and procedures, designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Our management assessed our internal control over financial reporting based on the *Internal Control—Integrated Framework (2013 Framework)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”). Based on the results of this assessment, our management concluded that our internal control over financial reporting was effective as of June 30, 2024 based on such criteria.

A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met under all potential conditions, regardless of how remote, and may not prevent or detect all errors and all fraud. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within LightPath have been prevented or detected. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Auditor’s Report on Internal Control over Financial Reporting

This Annual Report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management’s report was not subject to attestation by our independent registered public accounting firm pursuant to rules of the SEC that permit us to provide only management’s report in this Annual Report.

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Changes in Internal Controls over Financial Reporting

In connection with our continued monitoring and maintenance of our controls procedures as part of the implementation of Section 404 of the Sarbanes-Oxley Act, we continue to review, test, and improve the effectiveness of our internal controls. In connection with the events that occurred at our Chinese subsidiaries, we adopted additional policies and procedures designed to improve our internal controls, including, without limitation, revising the reporting structure for our foreign-based finance directors, adopting Codes of Conduct applicable to our subsidiaries’ foreign-based employees, adopting an internal authority approval matrix, and hiring additional staff for our accounting department at LPOIZ to improve segregation of duties, among other items. Other than these modifications, there have not been any significant changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the fourth quarter and since the year ended June 30, 2024 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III**Item 10. Directors, Executive Officers and Corporate Governance.**

Currently, we have six directors with each director serving until his or her successor is elected and qualified. Our Board is divided into three classes, denoted as Class I, Class II, and Class III, serving staggered three-year terms with one class elected at the annual meeting of stockholders. The Class II Directors' term expires at the annual meeting of stockholders proposed to be held in fiscal year 2025. The Class I Directors' term expires at the annual meeting of stockholders proposed to be held in fiscal year 2026. The Class III Directors' term expires at the annual meeting of stockholders proposed to be held in fiscal year 2027.

The table below lists each current director, each such director's committee memberships as of June 30, 2024, the Chair of each Board committee, and each such director's class.

Name	Class	Audit	Compensation	Finance	Nominating & Corporate Governance
Dr. Joseph Menaker	I	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
Darcie Peck	I	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
M. Scott Faris, Chair	II		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S. Eric Creviston	II		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Kim Crider	III	<input checked="" type="checkbox"/>			
Shmuel Rubin	III				
Committee Chair:		Peck	Faris	Creviston	Faris

Biographical and Related Information – Directors and Executive Officers

The following is an overview of the biographical information for each of our directors and executive officers, including their age, the year they became directors or officers, their principal occupations or employment for at least the past five years, and certain of their other directorships.

Class II Directors

M. Scott Faris, 59
Chair

Mr. Faris has served as a director of the Company since December 2011, and was appointed Chair, effective December 20, 2022. Mr. Faris is an experienced entrepreneur with almost two decades of operating, venture-financing, and commercialization experience, involving more than 20 start-up and emerging-growth technology companies. In April 2024 Mr. Faris founded Eqlipse Quantum, a commercialization accelerator focused on launching and financing transformational dual-use quantum enabled companies for critical defense and intelligence requirements. From October 2021 to April 2024, Mr. Faris served as Chief Executive Officer of Inflection (formerly Cold Quanta, Inc.). Since September 2016, he had served as Chief Business Officer of Luminar Technologies, Inc., a leading developer of autonomous vehicle systems technologies including Lidar sensor suites. In June 2013, Mr. Faris founded Aerosonix, Inc. (formerly MicroVapor Devices, LLC), a privately held developer and manufacturer of advanced medical devices, and served as its Chief Executive Officer until August 2016 and has served as Chairman of the board of directors since June 2013. In 2002, Mr. Faris also founded the Astralis Group, a strategy advisor that provides consulting to start-up companies and, since 2004, Mr. Faris has served as its Chief Executive Officer. In August 2007, Mr. Faris founded Planar Energy, a company that developed transformational ceramic solid-state battery technology and products and served as its Chief Executive Officer until June 2013. Planar Energy is a spin-out of the U.S. Department of Energy's National Renewable Energy Laboratory. From October 2004 to June 2007, Mr. Faris was a partner with Corporate IP Ventures (formerly known as MetaTech Ventures), an early-stage venture fund specializing in defense technologies. Mr. Faris also previously served as the Chairman and Chief Executive Officer of Waveguide Solutions, a developer of planar optical light wave circuit and micro system products, and as a director and Chief Operating Officer of Ocean Optics, Inc., a precision-optical-component and fiber-optic-instrument spin-out of the University of South Florida. Mr. Faris was also the founder and Chief Executive Officer of Enterprise Corporation, a technology accelerator, served as a director of the Florida Seed Capital Fund and Technology Commercialization at the Center for Microelectronics Research, and the Chairman of the Metro Orlando EDC. Mr. Faris received a Bachelor of Science degree in Management Information Systems from Penn State University in 1988. Mr. Faris's significant experience in executive management positions at various optical component companies, his experience in the commercialization of optical and opto-electronic component technology, and his background in optics, technology, and venture capital qualify him for service as one of our directors.

S. Eric Creviston, 60
Director

Mr. Creviston has served as one of our directors since March 2021. He has served as Corporate Vice President and President of Connectivity and Sensors Group for Qorvo, Inc. ("Qorvo") since June 2022. Prior to that, he served as Corporate Vice President and President of Mobile Products for Qorvo since January 2015. Prior to that, he served as the Corporate Vice President and President of Cellular Products Group for RF Micro Devices, Inc. ("RFMD") from August 2007 to January 2015. From May 2002 to August 2007, he served as Corporate Vice President of Cellular Products Group (previously known as Wireless Products until 2004), for RFMD. Mr. Creviston received a Master's degree in Electrical and Electronics Engineering from the University of Illinois. Mr. Creviston's previous experience in various leadership roles in Qorvo and RFMD adds invaluable knowledge to our Board with respect to assessing our business strategies, evaluating operating performance, assessing risks, and evaluating potential merger and acquisition opportunities, all of which qualify him for service as one of our directors.

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Dr. Joseph Menaker, 67
Director

Dr. Menaker was appointed to the Board in November 2018, and prior to that was a consultant to the Board beginning in March 2018, and prior to that was a consultant to us beginning in December 2016. From 1998 to 2016, he served as President of ISP, and as a director of its wholly owned subsidiary, ISP Latvia, until we acquired ISP in December 2016. Dr. Menaker is a graduate of Latvian State University, where he received his Bachelor and Master of Science degrees in Economics. In 1985, Dr. Menaker received a Doctor of Philosophy degree in Economics from Leningrad Institute of Finance and Economics. He co-founded UAV Factory Ltd. (“UAVF”) in Latvia in 2009 and served as its CEO from January 2017 to January 2021. Dr. Menaker continues to serve as a member of the Board of Directors for UAVF, which became part of Edge Autonomy Holdings. Edge Autonomy Holdings is a leading manufacturer of unmanned aerial vehicles. Dr. Menaker is also a Board Member of Alpha Unmanned Systems, Spanish Company specializing in the unmanned rotary systems. He also serves as a board member for Tsal Kaplun Foundation, a non-profit organization. Dr. Menaker’s expertise gained in various roles in financial management, international operations, and manufacturing high tech products and their applications for over thirty years, coupled with his knowledge gained as a researcher and analyst in economics provide invaluable knowledge to our Board and qualify him for service as one of our directors.

Darcie Peck, 66
Director

Ms. Peck has served as one of our directors since November 2019. Ms. Peck served as a consultant to the Board beginning in April 2019. Prior to that she served as a Managing Partner of a start-up employee engagement consultancy firm from June 2017 through February 2019 and she currently works with and advises private companies in short and long term cash, capital planning and strategies. From May 2013 until February 2016, Ms. Peck served as the Vice President Finance, Global Services for IMS Health Inc. (“IMS Health,” now IQVIA Holdings Inc.), a technology and analytics company serving life sciences companies near Danbury, Connecticut. From November 2009 until May 2013, Ms. Peck was Vice President Financial Planning and Analysis for IMS Health. From May 2002 through November 2009, Ms. Peck was Vice President Finance and Investor Relations for IMS Health. Prior to that, Ms. Peck was Vice President Finance, IBM Software Group (a division of International Business Machines Corp., or “IBM”) in Somers, New York from March 2001 to May 2002. From 1982 through to 2001, she held progressively increasing leadership responsibilities at IBM in finance, including Chief Financial Officer and General Manager of several acquired companies in technology, manufacturing, and computer leasing. Ms. Peck earned a Bachelor of Arts degree in Biology at the University of Rochester and a Master’s degree in Business Administration from New York University Stern Graduate School of Business Administration. Ms. Peck’s expertise in executive leadership, financial and strategic planning, investor relations, international business, general management, business and pricing acumen, and high technology manufacturing process knowledge, uniquely qualifies her for service as one of our directors.

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Kim Crider, 59
Director

Ms. Crider is a highly experienced executive and has served as a director on boards for both private and public companies. She has held executive leadership positions in several multi-billion-dollar enterprises over the past 10 years, with deep expertise in aerospace, cybersecurity, data/AI and information technology. Ms. Crider presently has served as a member of the Board of Directors for the National Cybersecurity Center since July 2021, and for the Catalyst Campus for Technology & Innovation since January 2022. She also serves as a Board Advisor for Aalyria Technologies, Inc. a position she has held since January 2022. Ms. Crider served as a member of the Board of Directors of Virgin Orbit National Systems, LLC from April 2022 to August 2023. Ms. Crider is a founding partner and since its inception in May 2023, has served as the Co-Chief Executive Officer of Elara Nova Space Consultancy, LLC, a premier global advisory firm focused on the space sector. From 2016 to 2021, she was President of Kim Crider & Associates, LLC and Leadership Matters, LLC, specialized consulting firms providing executive consulting and coaching services to CEOs, CIOs, CTOs and other C-Suite leaders across industry sectors. A retired Major General in the United States Air Force, after serving in progressive leadership roles from 1986-2019, she also served as the first Chief Technology and Innovation Officer for the United States Space Force, Pentagon Washington D.C. from 2019 to 2021. Ms. Crider earned a Bachelor of Science degree in Electrical Engineering from Duke University in North Carolina, a Master of Business Administration degree from Western New England College in Massachusetts, a Master of Science in Military Studies from Air Command and Staff College in Alabama, a Master of Science in National Resource Strategy from National Defense University in Washington, D.C., and a Graduate Certificate in Organizational Behavior from Harvard University in Massachusetts. Ms. Crider’s expertise in corporate accountability, compliance, special security agreements, CEO transition/succession planning, cybersecurity risk management and oversight, uniquely qualifies her for service as one of our directors.

Shmuel Rubin, 50
President & Chief Executive
Officer, Director

Mr. Rubin has served as our President, Chief Executive Officer, and as a Director since March 2020. Mr. Rubin is also Chief Executive Officer and a director of LightPath Optical Instrumentation (Shanghai) Co., Ltd. (“LPOI”), our wholly-owned subsidiary located in Jiading, People’s Republic of China, LightPath Optical Instrumentation (Zhenjiang) Co., Ltd. (“LPOIZ”), our wholly-owned subsidiary located in the New City District, of the Jiangsu province of the People’s Republic of China, ISP Optics Corporation (“ISP”), our wholly-owned subsidiary, located in Orlando, Florida, and ISP Optics Latvia SIA (“ISP Latvia”), our wholly-owned subsidiary located in Riga, Latvia.

Prior to joining us, Mr. Rubin was formerly the General Manager at Thorlabs Inc. (“Thorlabs”). In Mr. Rubin’s prior senior executive role at Thorlabs, he was responsible for Thorlabs’ Imaging Systems Division, a standalone organization with its own sales and marketing, as well as global responsibility for all of Thorlabs’ Life Science

activities. Among the positions he held at Thorlabs, Mr. Rubin founded and grew Thorlabs’s fast growing operation in China, and spearheaded Thorlabs’ entry and significant growth in the Life Sciences market. As a member of the senior executive team, Mr. Rubin led new strategic initiatives for Thorlabs, including new product lines, acquisitions and growth into new markets. Prior to joining Thorlabs, Mr. Rubin co-founded Xlight Photonics, an optical communication startup, which was later sold to a telecommunications private equity firm. Mr. Rubin holds a Bachelor of Science degree in Electronic Engineering from Ben Gurion University, a Master of Business Administration degree from New York University, Stern School of Business, and is a graduate of the Executive Education, Program for Leadership Development at Harvard Business School. Mr. Rubin’s significant management experience in the optical industry qualifies him to lead us and our business and serve as one of our directors.

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Executive Officers Who Do Not Serve as Directors

Albert Miranda, 57
Chief Financial Officer

Mr. Miranda joined the Company in April 2021 and was appointed as our Chief Financial Officer on May 7, 2021. Mr. Miranda was previously employed with Jenoptik North America, Inc. (“Jenoptik”) for twelve years and held the positions of President and Chief Financial Officer. Prior to his employment with Jenoptik, he held senior level finance and operational positions in optical products groups within Carl Zeiss AG and served in the finance department for a division of BASF SE. Mr. Miranda received an undergraduate degree in Public Accounting from Pace University in New York. He attained significant professional experience and management expertise through key functional areas encompassing finance, operations, business development, sales, marketing, human resources, and information technology across a broad group of products and services in demanding and diverse industries including healthcare, defense and security, consumer electronics, automotive, and semiconductors.

Family Relationships

There are no family relationships among our executive officers and directors.

Corporate Codes and Policies

The Board approved an Amended and Restated Code of Business Conduct and Ethics (the “Code”) on April 28, 2016. The Code applies to all of our employees, officers, and directors, including our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions. The Board also approved an Amended and Restated Code of Business Conduct and Ethics for Senior Financial Officers (the “Senior Financial Officer Code”), which applies to our Chief Executive Officer, Chief Financial Officer, principal accounting officer, controller, accounting manager, and persons performing similar functions. Copies of the Code and the Senior Financial Officer Code are available on our website at www.lightpath.com, under the “Investors” tab, or may be obtained free of charge by writing to: Corporate Secretary, LightPath Technologies, Inc., 2603 Challenger Tech Court, Suite 100, Orlando, Florida 32826.

Insider Trading Policy

Our written Guide for Trading in Securities governs trading activity by directors, officers and employees, was adopted by the Board in 2018. Employees and directors are prohibited from selling or buying publicly traded options on LightPath stock, or trading in any LightPath stock derivatives. Additionally, these individuals may not engage in transactions in which they may profit from short-term speculative swings in the value of LightPath stock utilizing “short sales” or “put” or “call” options, and they are prohibited from holding LightPath stock in a margin account or pledging Company securities as collateral for a loan.

Independent Committees

In accordance with the The Nasdaq Capital Market (the “NCM”) and SEC rules, the Board affirmatively determines the independence of each director and director nominee in accordance with guidelines it has adopted, which include all elements of independence set forth in the NCM listing standards. Based on these standards, the Board has determined that as of the end of fiscal year 2024, each of the following non-employee directors was independent and has no relationship with us, except as one of our directors and stockholders:

M. Scott Faris

Kim Crider

Darcie Peck

S. Eric Creviston

Joseph Menaker

Based on these standards, the Board determined Shmuel Rubin, currently a Class III Director, is not independent.

All of the members of the Audit, Nominating, and Compensation Committees are independent.

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Board Committees

The Board has an Audit Committee (the “Audit Committee”), a Compensation Committee (the “Compensation Committee”), a Nominating and Corporate Governance Committee (the “Nominating Committee”), and a Finance Committee (the “Finance Committee”).

Audit Committee. The Audit Committee, which as of June 30, 2024, consisted of Darcie Peck (Chair), Dr. Joseph Menaker, and Kim Crider, met four times during fiscal year 2024. The meetings included discussions with management and with our independent registered public accounting firm to discuss our interim and annual consolidated financial statements and our annual report, and the effectiveness of our financial and accounting functions and organization.

The Audit Committee acts pursuant to a written charter adopted by the Board, a copy of which is available on our website at www.lightpath.com under the “Investors” and “Governance” tabs. The Audit Committee’s responsibilities include, among others, engaging and terminating our independent registered public accounting firm, oversight of the independent registered public accounting firm, and determining the compensation for their engagement(s). The Board has determined that the Audit Committee is comprised entirely of independent members as defined under applicable listing standards set out by the SEC and NCM. The Board has also determined that all three members of the Audit Committee are “audit committee financial experts” as defined by SEC rules and qualify as independent in accordance with the NCM rules. Their respective business experience that qualifies each director to be determined as “audit committee financial expert” is described above.

Compensation Committee. The Compensation Committee, which as of June 30, 2024, consisted of M. Scott Faris (Chair), Darcie Peck, and S. Eric Creviston, met once during fiscal year 2024. The Compensation Committee acts pursuant to a written charter adopted by the Board, a copy of which is available on our website at www.lightpath.com under the “Investors” and “Governance” tabs.

The Compensation Committee is responsible for establishing, implementing, and continually monitoring our compensation policies and philosophy, including administering our 2018 Omnibus Incentive Plan (the “SICP”), pursuant to which incentive awards, including restricted stock units and stock options, are granted to our directors, executive officers, and key employees. The Compensation Committee is responsible for determining executive compensation, including approving recommendations regarding equity awards to all of our executive officers. However, the Compensation Committee does rely on the annual reviews made by the Chief Executive Officer with respect to the performance of each of our other executive officers. The conclusions reached, and recommendations made based on these reviews, including with respect to salary adjustments and annual award amounts, are presented to the Compensation Committee. The Compensation Committee can exercise its discretion in modifying any recommended adjustments or awards to executive officers. In the case of the Chief Executive Officer, compensation is determined solely based on the review conducted by the Compensation Committee.

The Compensation Committee also annually reviews director compensation to ensure non-employee directors are adequately compensated for the time expended in fulfilling their duties to us, as well as the skill-level required by us of members of the Board. After the Compensation Committee completes their annual review, they make recommendations to the Board regarding director compensation.

The Compensation Committee regularly engages compensation consultants to assist with the Compensation Committee’s responsibilities related to our executive compensation program and the director compensation program. The Compensation Committee plans to engage a consultant every two years to review and make recommendations on the Company’s executive compensation plans.

Finance Committee. The Finance Committee, which as of June 30, 2024, consisted of S. Eric Creviston (Chair), Dr. Joseph Menaker, and M. Scott Faris met once during fiscal year 2024. The Finance Committee acts pursuant to a written charter adopted by the Board, a copy of which is available on our website at www.lightpath.com under the “Investors” and “Governance” tabs. The Finance Committee oversees our financial management, including overseeing our strategic and transactional planning and activities, global financing, capital structure objectives and plans, insurance programs, tax structure, and investment program and policies.

Nominating and Corporate Governance Committee. The Nominating Committee, which as of June 30, 2024, consisted of M. Scott Faris (Chair), S. Eric Creviston, and Darcie Peck, met once during fiscal year 2024. The Nominating Committee acts pursuant to a written charter adopted by the Board, a copy of which is available on our website at www.lightpath.com under the “Investors” and “Governance” tabs. The Nominating Committee carries out the responsibilities delegated by the Board relating to our director nominations process and procedures, and developing, maintaining, and monitoring compliance with the Company’s corporate governance policies, guidelines, and activities.

The Nominating Committee determines the qualifications, qualities, skills, and other expertise required to be a director and to develop, and recommend to the Board for its approval, criteria to be considered in selecting nominees for director. Further, the gender, racial, experience, and skills diversity of the Board is also a factor in our director recruitment process. However, the Nominating Committee and the Board believe that at this time, it is unnecessary to adopt criteria for the selection of directors. Instead, the Nominating Committee and the Board believes that the desirable background of a new individual member of the Board may change over time and that a thoughtful, thorough selection process is more important than adopting criteria for directors.

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They will also identify, recruit, and screen candidates for the Board, consistent with criteria approved by the Board. The Nominating Committee and Board is fully open to utilizing whatever methodology is efficient in identifying new, qualified directors when needed, including industry contacts of our directors or professional search firms. The Nominating Committee also considers any director candidates recommended by our stockholders and any nominations of director candidates validly made by stockholders in accordance with applicable laws, rules, and regulations, and the provisions of our charter documents.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires our directors, executive officers, and any person beneficially owning more than 10% of our common stock to file reports concerning their ownership of our equity securities with the SEC. Based solely on a review of the forms filed electronically with the SEC during Fiscal 2024 and on written representations that no Form 5 was required to be filed, we believe that, during Fiscal 2024, all of our directors, executive officers, and persons who beneficially owned more than 10% of our common stock timely complied with the Section 16(a) filing requirements.

Item 11. Executive Compensation.

Named Executive Officers

During fiscal year 2024, our named executive officers were as follows:

- Shmuel Rubin, our current President and Chief Executive Officer, and a director;
- Albert Miranda, our current Chief Financial Officer.

Compensation Philosophy and Objectives

Our compensation policy is designed to attract and retain qualified key executive officers critical to our achievement of reaching and maintaining profitability and positive cash flow, and subsequently our growth and long-term success. To attract, retain, and motivate the executive officers to accomplish our business strategy, the Compensation Committee establishes our executive compensation policies and oversees our executive compensation practices.

The Compensation Committee believes that the most effective executive compensation program is one that is designed to recognize the achievement of our specific short-term and long-term goals, and which aligns executives' interests with those of the stockholders by rewarding performance that meets or exceeds established goals, with the ultimate objective of improving stockholder value.

It is the objective of the Compensation Committee to have a portion of each named executive officer's compensation contingent upon our performance as well as upon the individual's personal performance. Accordingly, each named executive officer's compensation package is comprised of two elements: (i) base salary, which reflects individual performance and expertise and (ii) short-term and long-term incentive awards, which are tied to the achievement of certain performance goals that the Compensation Committee establishes from time to time. The Compensation Committee has structured compensation of our named executive officers to incentivize achievement of our business goals and reward our named executive officers for achieving such goals.

The Compensation Committee also evaluates our compensation program to ensure that we maintain the ability to attract and retain superior employees in key positions and that compensation provided to key employees remains competitive relative to the compensation paid to similarly situated executive officers.

In accordance with the advisory "say-on-frequency" vote of our stockholders at the fiscal year 2017 annual meeting of stockholders, held in January 2017, and as approved by the Board, we will include an annual advisory "say-on-pay" vote in our proxy statement, including the Proxy Statement for the fiscal year 2024 annual meeting of stockholders. Our next required stockholder advisory "say-on-frequency" vote will occur at our fiscal year 2030 annual meeting of stockholders. The most recent "say-on-pay" advisory vote occurred at the fiscal year 2023 annual meeting of stockholders, at which our stockholders approved, on an advisory basis, the compensation of our named executive officers.

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Setting Executive Compensation

In making compensation decisions, the Compensation Committee relies on the following:

- the annual reviews made by the Chief Executive Officer with respect to the performance of each of our other named executive officers;
- the annual review conducted by the Compensation Committee with respect to the performance of the Chief Executive Officer;
- compensation paid to executive officers of other manufacturing companies similar in size and scope as us and our competitors; and
- our annual performance with respect to our short-term and long-term strategic plan.

There is no pre-established policy or target for the allocation between either cash and non-cash or short-term and long-term incentive compensation. Rather, the Compensation Committee annually reviews information to determine the appropriate level and mix of incentive compensation when determining our executive compensation plan. Based on these factors, the Compensation Committee makes compensation decisions, including salary adjustments, annual short-term cash incentive awards, and long-term equity incentive awards for our named executive officers.

Retirement Benefits

We offer a qualified 401(k) defined contribution plan. The ability of named executive officers to participate fully in this plan is limited under the requirements of the Internal Revenue Code of 1986, as amended, and the Employment Retirement Income Security Act of 1974, as amended. We currently match 100% of the first 2% of employee contributions.

Executive Compensation and Risk

Although a substantial portion of the compensation paid to our named executive officers is performance-based, we believe our executive compensation programs do not encourage excessive and unnecessary risk-taking by our named executive officers because these programs are designed to encourage our named executive officers to remain focused on both our short-term and long-term operation and financial goals. We achieve this balance through a combination of elements in our overall compensation plans, including: (i) elements that reward different aspects of short-term and long-term performance; (ii) incentive compensation that rewards performance on a variety of different measures; and (iii) cash awards and stock option awards, to encourage alignment with the interests of stockholders.

Clawback Policy

The Compensation Committee of the Board has adopted a formal Compensation Clawback Policy, as required by the NASDAQ Listing Standards. The Clawback Policy provides for the recovery of incentive-based compensation erroneously received by current or former executive officers during the

three fiscal years immediately preceding the year in which the company is required to prepare an accounting restatement due to material noncompliance with financial reporting requirements. The requirements under the Clawback Policy are separate from any recoupment required by the Sarbanes-Oxley Act of 2002. The Committee also has discretion to seek recovery of any amount that it determines was received otherwise inappropriately by such individuals.

2024 Incentive Program

Our fiscal year 2024 incentive program has two key components: (i) the Short-Term Incentive (“STI”) program, and (ii) the Long-Term Incentive (“LTI”) program. The STI program is comprised of awards based on our achievement of specific fiscal year 2024 financial objectives (the “2024 STI Award”). The LTI program is comprised of (i) an individual RSU award, based on total shareholder return (the “2024 TSR Award”), which is calculated based on the overall change in LPTH stock price per share, as compared to the Russell MicroCap Index, and (ii) retention RSUs that will vest in three equal annual installments (the “2024 Retention RSU Award” and, together with the 2024 LTI TSR Award, the “2024 LTI Awards”).

Our incentive program includes different levels of bonus opportunity based on a participant’s position with the Company. For fiscal year 2024, Mr. Rubin was the only “level one” participant, and Mr. Miranda was a “level two” participant. Bonus opportunities for Mr. Rubin and Mr. Miranda for fiscal year 2024 were calculated by applying designated portions of their respective bonus pool amounts, which were set by the Compensation Committee, to formulas for each of the components of the STI and LTI programs, as applicable.

STI Program

For both the level one and level two participant, the 2024 STI Award was based on the achievement of corporate financial objectives and personalized goals, with a minimum of 60% of the EBITDA target required to earn any bonus. The corporate financial objectives are as follows: (i) EBITDA (which is earnings before income, taxes, depreciation, and amortization) (the “EBITDA Component”); and (ii) revenue growth over that of the prior fiscal year (the “Revenue Component”). The EBITDA Component was weighted at 60%, the Revenue Component was weighted at 20%, and the personalized goals were weighted at 20%. For fiscal year 2024, the bonus pool amounts for the 2024 STI Award for Mr. Rubin and Mr. Miranda were set at \$193,832 and \$98,280, respectively. The Compensation Committee determined that achievement of the 2024 STI Award would be paid in cash and stock options, with the percentage split of the payout to be determined at the discretion of the Board.

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EBITDA Component

In order for the participants to earn a bonus with respect to the EBITDA Component, we had to meet or exceed a minimum EBITDA target established by the Compensation Committee for fiscal year 2024. Further, we had to meet or exceed at least 60% of that EBITDA target in order to earn any portion of the 2024 STI Award.

For fiscal year 2024, EBITDA was a loss of approximately \$3.7 million, which was below the target amount. The achieved EBITDA also did not meet 60% of the EBITDA target. Accordingly, Mr. Rubin and Mr. Miranda did not earn any portion of the 2024 STI Award.

LTI Program

The 2024 LTI Awards are comprised of two components: (i) the 2024 Retention RSU Award and (ii) the 2024 TSR Award. For fiscal year 2024, the bonus pool amounts for the 2024 LTI Award for Mr. Rubin and Mr. Miranda were set at \$164,980 and \$71,626, respectively. The bonus pool amounts for the 2024 Retention RSU Award and the 2024 TSR Award would each be 50% of the respective bonus pool amount for the 2024 LTI Award.

2024 Retention RSU Award

The 2024 Retention RSU Award was calculated to be \$82,490 and \$35,813 for Mr. Rubin and Mr. Miranda, respectively. The RSUs were granted on January 31, 2024, based on the closing bid price of \$1.37 on that day, with one-third of the RSUs to vest on each of the first, second and third anniversaries of the grant date.

2024 TSR Award

In order to earn the 2024 TSR Award, the TSR calculated for LPTH stock was measured against the Russell MicroCap Index. TSR is calculated as the overall change in LPTH’s stock price per share from the beginning of fiscal year 2024 to the end of fiscal year 2024, divided by the stock price per share at the beginning of the fiscal year. The calculated TSR for fiscal year 2024 was less favorable than the change in the Russell MicroCap Index, therefore the 2024 TSR Award was not earned.

2023 Incentive Program

Our fiscal year 2023 incentive program has two key components: (i) the Short-Term Incentive (“STI”) program, and (ii) the Long-Term Incentive (“LTI”) program. The STI program is comprised of awards based on our achievement of specific fiscal year 2023 financial objectives (the “2023 STI Award”). The LTI program is comprised of (i) an individual RSU award, based on total shareholder return (the “2023 TSR Award”), which is calculated based on the overall change in LPTH stock price per share, as compared to the Russell MicroCap Index, and (ii) retention RSUs that will vest in three equal annual installments (the “2023 Retention RSU Award” and, together with the 2023 LTI TSR Award, the “2023 LTI Awards”).

Our incentive program includes different levels of bonus opportunity based on a participant’s position with the Company. For fiscal year 2023, Mr. Rubin was the only “level one” participant, and Mr. Miranda was a “level two” participant. Bonus opportunities for Mr. Rubin and Mr. Miranda for fiscal year 2023 were calculated by applying designated portions of their respective bonus pool amounts, which were set by the Compensation Committee, to formulas for each of the components of the STI and LTI programs, as applicable.

STI Program

For both the level one and level two participant, the 2023 STI Award was based on the achievement of corporate financial objectives and personalized goals, with a minimum of 60% of the EBITDA target required to earn any bonus. The corporate financial objectives are as follows: (i) EBITDA (which is earnings before income, taxes, depreciation, and amortization) (the “EBITDA Component”); and (ii) revenue growth over that of the prior fiscal year (the “Revenue Component”). The EBITDA Component was weighted at 60%, the Revenue Component was weighted at 20%, and the personalized goals were weighted at 20%. For fiscal year 2023, the bonus pool amounts for the 2023 STI Award for Mr. Rubin and Mr. Miranda were set at \$186,377 and \$94,500, respectively. The Compensation Committee determined that achievement of the 2023 STI Award would be paid in cash and stock options, with the percentage split of the payout to be determined at the discretion of the Board.

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EBITDA Component

In order for the participants to earn a bonus with respect to the EBITDA Component, we had to meet or exceed a minimum EBITDA target established by the Compensation Committee for fiscal year 2023. Further, we had to meet or exceed at least 60% of that EBITDA target in order to earn any portion of the 2023 STI Award.

For fiscal year 2023, EBITDA was a loss of approximately \$355,000, which was below the target amount. The achieved EBITDA also did not meet 60% of the EBITDA target. Accordingly, Mr. Rubin and Mr. Miranda did not earn any portion of the 2023 STI Award.

LTI Program

The 2023 LTI Awards are comprised of two components: (i) the 2023 Retention RSU Award and (ii) the 2023 TSR Award. For fiscal year 2023, the bonus pool amounts for the 2023 LTI Award for Mr. Rubin and Mr. Miranda were set at \$158,635 and \$68,871, respectively. The bonus pool amounts for the 2023 Retention RSU Award and the 2023 TSR Award would each be 50% of the respective bonus pool amount for the 2023 LTI Award.

2023 Retention RSU Award

The 2023 Retention RSU Award was calculated to be \$79,318 and \$34,436 for Mr. Rubin and Mr. Miranda, respectively. The RSUs were granted on November 17, 2022, based on the closing bid price of \$1.18 on that day, with one-third of the RSUs to vest on each of the first, second and third anniversaries of the grant date.

2023 TSR Award

In order to earn the 2023 TSR Award, the TSR calculated for LPTH stock was measured against the Russell MicroCap Index. TSR is calculated as the overall change in LPTH’s stock price per share from the beginning of fiscal year 2023 to the end of fiscal year 2023, divided by the stock price per share at the beginning of the fiscal year. The calculated TSR for fiscal year 2023 was more favorable than the change in the Russell MicroCap Index, therefore the 2023 TSR Award was earned. The 2023 TSR Award was calculated to be \$79,318 and \$34,436 for Mr. Rubin and Mr. Miranda, respectively. The RSUs were granted on January 31, 2024, following the annual stockholder meeting, based on the closing bid price on that day, with one-third of the RSUs to vest on each of the first, second and third anniversaries of the grant date.

2021 Incentive Program

The 2021 incentive program included a multi-year award with performance targets for fiscal years 2021, 2022 and 2023. Mr. Rubin was eligible for this award, however no points were earned toward this award.

Summary Compensation Table

The following table sets forth certain compensation awarded to, earned by or paid to (i) any individuals serving as our Chief Executive Officer during fiscal year 2024 and (ii) our two other most highly compensated executive officers serving as executive officers at the end of fiscal year 2024. Mr. Miranda was the only other individual serving as an executive officer at the end of fiscal year 2024.

Name and Position (a)	Fiscal Year (b)	Salary (\$) (c)	Stock Awards (\$) (1) (e)	Option Awards (\$) (2) (f)	Non-Equity	All Other	Total
					Incentive Plan Compensation (\$) (g)	Compensation (\$) (3) (i)	(\$) (j)
Shmuel Rubin	2024	\$ 378,092(4)	\$ 82,490(4)	—	—	\$ 17,460	\$ 478,042
President & Chief Executive Officer	2023	\$ 360,500(4)	\$ 171,765(4)	—	—	\$ 21,457	\$ 553,722
Albert Miranda	2024	\$ 243,059(5)	\$ 35,813(5)	—	—	\$ 13,665	\$ 292,537
Chief Financial Officer	2023	\$ 231,750(5)	\$ 78,959(5)	—	—	\$ 19,445	\$ 330,154

Notes:

- (1) For valuation assumptions on stock awards refer to Note 10 to the Consolidated Financial Statements of our Annual Report on Form 10-K for fiscal year 2024. The disclosed amounts reflect the fair value of the RSU awards that were earned during the fiscal years ended June 30, 2024 and 2023 in accordance with FASB ASC Topic 718.
- (2) No stock option awards were granted to Mr. Rubin or Mr. Miranda during the fiscal years ended June 30, 2024 and 2023.
- (3) “All Other Compensation,” as defined by SEC rules does not include the amounts that qualify under the applicable de minimis rule for all periods presented. The de minimis rules does not require reporting of perquisites and other compensation that totals less than \$10,000 in the aggregate. For fiscal year 2024 and 2023, the nature of these compensatory items includes our contribution toward the premium costs for

employee and dependent medical, life, and disability income insurances, benefits generally available to our employees, vacation buyout, and the Company's match on contributions under the 401k plan.

- (4) Mr. Rubin's base salary was 79% and 65% of his total compensation for fiscal years 2024 and 2023, respectively. For fiscal year 2024, Mr. Rubin was granted an RSU award in connection with the 2024 Retention RSU Award. For fiscal year 2023, Mr. Rubin was granted an RSU award in connection with the 2023 Retention RSU Award and was also granted an RSA Award in lieu of an adjustment to his cash compensation. The amounts in the table reflect the fair value of these awards in accordance with FASB ASC Topic 718. For additional information with respect to this grant, including the vesting schedules, please see "Discussion of Summary Compensation Table of Named Executive Officers" below.
- (5) Mr. Miranda's base salary was 83% and 70% of his total compensation for fiscal years 2024 and 2023, respectively. For fiscal year 2024 Mr. Miranda was granted an RSU award in connection with the 2024 Retention RSU Award. For fiscal year 2023, Mr. Miranda was granted an RSU award in connection with the 2023 Retention RSU Award and was also granted an RSA Award in lieu of an adjustment to his cash compensation. The amount in the table reflects the fair value of this award in accordance with FASB ASC Topic 718. For additional information with respect to these grants, including the vesting schedules, please see "Discussion of Summary Compensation Table of Named Executive Officers" below.

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Narrative Discussion of Summary Compensation Table of Named Executive Officers

The following is a narrative discussion of the material information that we believe is necessary to understand the information disclosed in the foregoing Summary Compensation Table.

With respect to fiscal year 2024, each named executive officer received a base salary and certain named executive officers were eligible for a 2024 STI Award, a 2024 Retention RSU Award, and a 2024 TSR Award. Information on the specific components of executive compensation for fiscal year 2024 can be found above under the heading "2024 Incentive Program." With respect to fiscal year 2023, each named executive officer received a base salary and certain named executive officers were eligible for a 2023 STI Award, a 2023 Retention RSU Award, and a 2023 TSR Award. Information on the specific components of executive compensation for fiscal year 2023 can be found above under the heading "2023 Incentive Program."

Employment Agreements

Shmuel Rubin

In connection with Mr. Rubin's appointment, the Company entered into an employment agreement with Mr. Rubin on February 24, 2020 (the "Rubin Employment Agreement"). The Company and Mr. Rubin orally agreed that Mr. Rubin's appointment as the President and CEO of the Company would be effective on March 9, 2020. The Agreement does not provide for a specified term of employment and Mr. Rubin's employment is on an at-will basis. Mr. Rubin receives an annual base salary of \$390,000, payable in equal bi-weekly installments, and is eligible to participate in all of the Company's bonus, incentive compensation, and performance based compensation plans, including, but not limited to the "SICP", under which the Company's executive officers are eligible to earn incentive compensation consisting of cash and/or equity awards based upon the achievement of certain individual and/or Company performance goals set by the Compensation Committee. The Company's incentive bonus program includes different levels of bonus opportunity based on a participant's position with the Company. For this purpose, Mr. Rubin is considered a "level one" participant.

Mr. Rubin is eligible to participate in the Company's employee benefit, welfare, and other plans, as may be maintained by the Company from time to time. The Company also agreed to provide a relocation allowance of up to \$50,000 payable by the Company on receipt of relocation expense receipts. The total period for relocation reimbursement concluded on August 1, 2020. The Company will provide up to \$15,000 in addition to the reimbursed relocation expenses to account for federal income taxes incurred by Mr. Rubin as a result of the relocation reimbursement. Mr. Rubin was required to reimburse the Company a prorated portion of all expenses paid by the Company if he left the Company for any reason other than death, disability, or discharge without cause within twelve (12) months of his relocation.

Pursuant to the Rubin Employment Agreement, Mr. Rubin was granted, on a one-time basis, a restricted stock award consisting of 100,000 shares of the Company's Class A common Stock, par value \$0.01 per share, with 50% of the shares of the Class A common stock vesting on the third anniversary of the grant date, and the remaining 50% vesting on the fourth anniversary of the grant date. The restricted stock award will be in all respects subject to the SICP and any amendments thereto, and conditioned upon Mr. Rubin's execution of a restricted stock award agreement evidencing the grant.

Also pursuant to the Rubin Employment Agreement, Mr. Rubin was granted option to purchase 225,000 shares of the Company's Class A common stock, having an exercise price per share equal to the greater of (i) \$1.37 per share or (ii) 115% of the closing bid price of the Class A common stock as reported on the NCM on the grant date, or February 24, 2020. Fifty-thousand shares of the Common Stock underlying the stock option will vest on each of the first, second, and third, anniversaries of the grant date, with the remaining seventy-five thousand shares of the Common Stock vesting on the fourth anniversary of the grant date. The option award will have a ten-year term, subject to earlier expiration as provided in the SICP or the option agreement. The option award will be in all respects subject to the SICP and any amendments thereto, and conditioned upon Mr. Rubin's execution of a stock option agreement evidencing the grant of the option award.

Albert Miranda

In connection with Mr. Miranda's appointment, we entered into an employment agreement with Mr. Miranda on April 19, 2021 (the "Miranda Employment Agreement"). Pursuant to the Miranda Employment Agreement, Mr. Miranda served as Vice President of Finance beginning on April 19, 2021 until May 7, 2021, at which time, Mr. Miranda transitioned into the role of Chief Financial Officer. The Miranda Employment Agreement does not provide for a specified term of employment and Mr. Miranda's employment is on an at-will basis. Mr. Miranda receives an annual base salary of \$251,000, payable in equal bi-weekly installments, and is eligible to participate in all of our bonus, incentive compensation, and performance based compensation plans, including, but not limited to, the SICP, under which our executive officers are eligible to earn incentive compensation consisting of cash and/or equity awards based upon the achievement of certain individual and/or performance goals set by the Compensation Committee.

Mr. Miranda is eligible to participate in our employee benefit, welfare, and other plans, as may be maintained by us from time to time. We agreed to provide a relocation allowance of up to \$10,000 payable by us on receipt of relocation expense receipts. The total period for relocation reimbursement concluded six months from the effective date of the Miranda Employment Agreement; however, exceptions may be granted by the Compensation Committee. Mr. Miranda must reimburse the Company a prorated portion of all expenses paid by us if he leaves us for any reason other than death, disability, or discharge without cause within twelve (12) months of his relocation.

Pursuant to the Miranda Employment Agreement, we granted Mr. Miranda an option to purchase up to 75,000 shares of Class A common stock, having an exercise price per share equal to the greater of (i) our book value per share on that date or (ii) 115% of the closing bid price of the Class A common stock as reported on the NCM on the grant date. The stock options will have a four-year vesting period with 25% vesting each year. The option award will have a ten-year term, subject to earlier expiration as provided in the SICIP or the option agreement, as defined below. The option award will be in all respects subject to the SICIP and any amendments thereto, and the option award.

Potential Payments Upon Termination or Change-of-Control

Neither Mr. Rubin nor Mr. Miranda are entitled to any payments upon termination or change-of-control.

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Outstanding Equity Awards at Fiscal Year-End

(a) Name	Option Awards				RSU Awards		Vesting Schedule
	(b) Number of Securities Underlying Unexercised Options (#) Exercisable	(c) Number of Securities Underlying Unexercised Options (#) Unexercisable	(e) Option Exercise Price (\$)	(f) Option Expiration Date	(g) Number of Shares or Units of Stock That Have Not Vested	(h) Market Value of Shares or Units of Stock That Have Not Vested	
Shmuel Rubin	225,000	--	\$ 1.58				50,000 shares/yr for 3 yrs; 75,000 shares on 4th anniversary
				11/11/2031	14,138	\$ 17,674	3 years, 1/3 per year
				11/17/2032	44,813	\$ 56,016	3 years, 1/3 per year
				1/31/2034	118,108	\$ 147,635	3 years, 1/3 per year
Albert Miranda	56,250	18,750	\$ 3.02	4/19/2031			25%/yr for 4 yrs
				11/11/2031	6,139	\$ 7,673	3 years, 1/3 per year
				11/17/2032	19,455	\$ 24,319	3 years, 1/3 per year
				1/31/2034	51,277	\$ 64,096	3 years, 1/3 per year

The stock options were issued pursuant to the SICIP and have a ten-year life. The options will terminate 90 days after termination of employment, or in the case of termination due to death or permanent disability, the options will terminate one year after the date of termination.

Director Compensation

The table below summarizes the compensation paid by us to non-employee directors for fiscal year 2024:

(a) Name (1)	Fees Earned or Paid in Cash \$(2) (b)	Stock Awards \$(4) (c)	All Other Compensation \$(g)	Total \$(h)
M. Scott Faris, Chair	\$ 55,000	\$ 60,000	\$ -	\$ 115,000
Louis Leebug	\$ 22,000(3)	\$ -	\$ -	\$ 22,000
Dr. Joseph Menaker	\$ 36,000	\$ 60,000	\$ -	\$ 96,000
Darcie Peck	\$ 40,000	\$ 60,000	\$ -	\$ 100,000
S. Eric Creviston	\$ 40,000	\$ 60,000	\$ -	\$ 100,000
Kim Crider	\$ 18,000	\$ 60,000	\$ -	\$ 78,000

- (1) Shmuel Rubin, our President and Chief Executive Officer during fiscal year 2024, is not included in this table as he was an employee and, thus, received no compensation for his services as a director. The compensation received by Mr. Rubin as an employee is disclosed in the Summary Compensation Table on page 48.

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- (2) Total fees earned for fiscal year 2024 includes all fees earned, including earned but unpaid fees. The amounts of unpaid fees for each director as of June 30, 2024, were as follows: Mr. Faris - \$41,250, Mr. Leebug - \$11,000, Ms. Crider - \$18,000, Dr. Menaker - \$27,000, Ms. Peck - \$31,000 and Mr. Creviston - \$30,000.

- (3) Mr. Leeburg retired during fiscal 2024, and was compensated through the last quarter he served as a director.
- (4) The table reflects the fair value amount for RSUs granted for the fiscal year ended June 30, 2024, in accordance with ASC Topic 718. The directors were entitled to a restricted stock award equal to \$60,000. The Company has a policy of granting performance-related stock options and RSUs at the greater of the closing bid price of our Class A common stock on the grant date or the book value per share of our Class A common stock as of the end of the most recent fiscal quarter. The fiscal year 2024 director award of 43,796 RSUs was based on the closing bid price of our Class A common stock on the grant date, or \$1.37.

Discussion of the Summary Compensation Table of Directors

The following is a discussion of the material information that we believe is necessary to understand the information disclosed in the Summary Compensation Table. We use a combination of cash and stock-based incentive compensation to attract and retain qualified candidates to serve on our Board. In setting director compensation, we consider the significant amount of time that directors expend in fulfilling their duties as a director as well as the skill-level required by us of members of our Board. For fiscal year 2024, the cash and stock-based incentive compensation awarded to directors remained essentially at the same levels set in fiscal year 2023. For fiscal year 2025, the cash and stock-based incentive compensation awarded to directors is expected to remain at the same levels set in fiscal 2024.

Cash Compensation Paid to Board Members

During fiscal year 2024, directors received a monthly retainer of \$3,000 per month. There are no meeting attendance fees paid unless, by action of the Board, such fees are deemed advisable due to a special project or other effort requiring extra-normal commitment of time and effort. Additionally, fees are paid to the Chair of the Board and Committee Chairs for their additional responsibilities in overseeing their respective functions. Due to mid-year director appointments and committee changes, certain fees were pro-rated for fiscal year 2024. The following table sets forth the annual fees paid to each director for fiscal year 2024:

	Board Fee	Chair Fee	Committee Chair Fee	Total Fees Earned for Fiscal Year 2024
M. Scott Faris	\$ 36,000	\$ 15,000	\$ 4,000	\$ 55,000
Louis Leeburg	\$ 18,000		\$ 4,000	\$ 22,000
Dr. Joseph Menaker	\$ 36,000			\$ 36,000
Darcie Peck	\$ 36,000		\$ 4,000	\$ 40,000
S. Eric Creviston	\$ 36,000		\$ 4,000	\$ 40,000
Kim Crider	\$ 18,000			\$ 18,000
Shmuel Rubin (1)	\$ -			\$ -

- (1) Mr. Rubin did not receive any compensation for his service as a director because he is also an employee.

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Stock Option/Restricted Stock Program

All directors are eligible to receive equity incentives under the SICP, including stock options, restricted stock awards, or RSUs. In fiscal year 2024, the following directors received grants under the SICP:

Name of Director (1)	Restricted Stock Units Number of Units Granted	Grant Date	Fair Value Per Share
M. Scott Faris, Chair	43,796	1/31/2024	\$ 1.37
Dr. Joseph Menaker	43,796	1/31/2024	\$ 1.37
Darcie Peck	43,796	1/31/2024	\$ 1.37
S. Eric Creviston	43,796	1/31/2024	\$ 1.37
Kim Crider	43,796	1/31/2024	\$ 1.37
	218,980		

- (1) Mr. Rubin did not receive any compensation for his service as a director because he is also an employee.

Item 12. Security Ownership of Certain Beneficial Owners and Management.

The following table sets forth, as of September 6, 2024, the number and percentage of outstanding shares of our Class A common stock, owned by: (i) each of our directors (which includes all nominees), (ii) each of the named executive officers, (iii) our directors and executive officers as a group, and (iv) each person known by us to be the beneficial owner of more than 5% of our outstanding Class A common stock. The number of shares of Class A common stock outstanding as of September 6, 2024 was 39,254,643.

The number of shares beneficially owned by each director, named executive officer, and greater than 5% beneficial owner is determined under SEC rules, and the information is not necessarily indicative of the beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares to which the individual has the sole or shared voting power or investment power and also any shares which the individual has the right to acquire within 60 days of September 6, 2024, through the exercise of any stock option or other right to purchase, such as a warrant. Unless otherwise indicated, each person has sole investment and voting power (or shares such power with his or her spouse) with respect to the shares set forth in the following table. In certain instances, the number of shares listed may include, in addition to shares owned directly, shares held by the spouse or children of

the person, or by a trust or estate of which the person is a trustee or an executor or in which the person may have a beneficial interest. The table that follows is based upon information supplied in a questionnaire completed by each named executive officer and director and stockholders beneficially owning greater than 5% of our Class A common stock.

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Name and Address (1)	Class A Common Stock			Amount of Shares of Class A Common Stock Beneficially Owned	Percent Owned (%)
	Restricted (2)	Common Stock	Stock Options		
M. Scott Faris, Chair	445,205	3,940		449,145	1.1%
Dr. Joseph Menaker, Director	229,738			229,738	*
Darcie Peck, Director	43,796	159,655		203,451(3)	*
S. Eric Creviston, Director	43,796	108,261		152,057	*
Kim Crider, Director	43,796			43,796	*
Shmuel Rubin, CEO	177,059	170,378	225,000	572,437	1.4%
Albert Miranda, CFO	76,871	31,205	56,250	164,326	*
All directors and executive officers currently holding office as a group (7 persons)	1,060,261	473,439	281,250	1,814,950	4.5%
Greater than 5% beneficial owners:					
AIGH Capital Management, LLC		3,723,932		3,723,932	9.5%
AMH Equity, LLC / Leviticus Partners, L.P.		2,959,230		2,959,230	7.5%
Marathon Micro Fund, LP		2,075,000		2,075,000	5.3%
Archon Capital Management LLC		2,045,534		2,045,534	5.2%

*Less than 1%

Notes:

- (1) Except as otherwise noted, each of the parties listed above has sole voting and investment power over the securities listed. The address for all directors and officers is “in care of” LightPath Technologies, Inc., 2603 Challenger Tech Court, Suite 100, Orlando, Florida 32826. The address for AIGH Capital Management, LLC, as filed on a Schedule 13G/A filed on February 7, 2024, is 6006 Berkeley Ave, Baltimore, MD 21209. The address for AMH Equity LLC / Leviticus Partners, L.P., as jointly filed on a Schedule 13G/A filed on February 13, 2024, is 32 Old Mill Road, Great Neck, NY 11023. The address for Marathon Micro Fund, L.P., as filed on Schedule 13G/A filed on February 3, 2023, is 4 North Park Drive, Suite 106, Hunt Valley, MD 21030. The address for Archon Capital Management LLC, as filed on Schedule 13G filed on February 13, 2024, is 1100 19th Avenue E, Seattle, Washington 98112.
- (2) Historically, restricted stock units (“RSUs”) awarded to our directors vest over three years. Beginning with the November 2021 grants, RSUs awarded to our directors now vest over one year, to more accurately reflect the period of service. Except for Darcie Peck and Eric Creviston, all of our directors have elected to defer receipt of the vested shares until after they leave the Board, either by reason of resignation, termination, or otherwise. For the directors who have elected to defer, the vested shares remain unissued. All of the directors’ unvested RSUs will vest upon such director’s resignation or termination from the Board. The amounts of restricted stock set forth above reflects both vested and unvested shares included in the RSU awards. As of September 6, 2024, the amounts of vested and unissued shares for each director, other than Mr. Rubin, are as follows: Mr. Faris – 445,205, and Dr. Menaker – 229,738; Ms. Peck, Mr. Creviston and Ms. Crider do not have any vested and unissued shares.
- (3) Includes 22,500 shares of Class A common stock, which are held by Ms. Peck’s husband.

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Securities Authorized for Issuance Under Equity Compensation Plans.

The following table sets forth information with respect to compensation plans under which our equity securities are authorized for issuance as of the end of fiscal year 2024:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise and grant price of outstanding options, warrants and rights (2)	Number of securities remaining available for future issuance

Equity compensation plans approved by security holders	1,965,361	\$	1.59	863,305
Equity compensation plans not approved by security holders	-		-	-

- (1) Represents the number of underlying shares of Class A common stock associated with outstanding stock options and outstanding RSUs and RSAs that have been granted, but not yet issued, pursuant to either the Omnibus Plan or the SICP, as applicable.
- (2) Represents weighted-average exercise price of stock options outstanding under the Omnibus Plan or the SICP, as applicable. The weighted-average exercise price includes the RSU and RSA awards at the issue date stock price.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Director Independence

In accordance with the NCM and SEC rules, the Board affirmatively determines the independence of each director and director nominee in accordance with guidelines it has adopted, which include all elements of independence set forth in the NCM listing standards. Based on these standards, the Board has determined that as of the end of fiscal year 2024, each of the following non-employee directors was independent and has no relationship with us, except as one of our directors and stockholders:

M. Scott Faris	Kim Crider
Darcie Peck	S. Eric Creviston
Joseph Menaker	

Based on these standards, the Board determined Shmuel Rubin, currently a Class III Director, is not independent.

All of the members of the Audit, Nominating, and Compensation Committees are independent.

The Board approved an Amended and Restated Code of Business Conduct and Ethics (the “Code”) on April 28, 2016. The Code applies to all of our employees, officers, and directors, including our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions. The Board also approved an Amended and Restated Code of Business Conduct and Ethics for Senior Financial Officers (the “Senior Financial Officer Code”), which applies to our Chief Executive Officer, Chief Financial Officer, principal accounting officer, controller, accounting manager, and persons performing similar functions. Copies of the Code and the Senior Financial Officer Code are available on our website at www.lightpath.com, under the “Investors” tab, or may be obtained free of charge by writing to: Corporate Secretary, LightPath Technologies, Inc., 2603 Challenger Tech Court, Suite 100, Orlando, Florida 32826.

Related Party Transactions

When we are contemplating entering into any transaction in which any executive officer, director, director nominee, or any family member of the foregoing would have any direct or indirect interest, regardless of the amount involved, the terms of such transaction have to be presented to the Audit Committee (other than any interested director) for approval or disapproval. Neither the Audit Committee nor the Board have adopted a written policy for reviewing related party transactions but when presented with such transaction, the transaction is discussed by the Audit Committee and documented in its meeting minutes.

The Code also requires our employees, officers, and directors to provide prompt and full disclosure of all potential conflicts of interest to the appropriate person. These conflicts of interest may be specific to the individual or may extend to his or her family members. Any officer who has a conflict of interest with respect to any matter is required to disclose the matter to our Chief Executive Officer or, in the case of the Chief Executive Officer, to the Chair of the Audit Committee. All other employees are required to make prompt and full disclosure of any conflict of interest to his or her immediate supervisor, who will then make prompt and full disclosure to our Chief Executive Officer. Directors are required to disclose any conflict of interests to the Chair of the Audit Committee and are prohibited from voting on any matter(s) in which they have a conflict of interest. In addition, directors and executive officers are required to disclose in an annual questionnaire, any current or proposed conflict of interests (including related party transactions).

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From the period beginning July 1, 2023 and ending September 16, 2024, there were no current or proposed material related party transactions.

Item 14. Principal Accountant Fees and Services.

The following table presents fees paid or to be paid for professional audit services rendered by MSL for the audit of our annual financial statements during the years ended June 30, 2024 and 2023, review of financial statements included in our quarterly reports during the years ended June 30, 2024 and 2023, and fees billed for other services rendered:

	Fiscal Year 2024	Fiscal Year 2023
Audit Fees (1)	\$ 185,200	\$ 177,850
Tax Fees (2)	-	28,000
All Other Fees (3)	19,900	25,910
Total All Fees (4)	\$ 205,100	\$ 231,760

- (1) Audit Fees consisted of fees billed for professional services rendered for the audit of our annual financial statements and review of the interim financial statements included in quarterly reports, and review of other documents filed with the SEC within those fiscal years.

- (2) Tax fees consisted of fees billed for professional services rendered for the preparation and filing of our annual tax returns for fiscal year 2022. We did not engage MSL to prepare and file our annual tax returns for fiscal year 2023.
- (3) All other fees for fiscal year 2024 primarily consist of fees billed for professional services related to the at-the-market equity program. All Other Fees for fiscal year 2023 consist of fees billed for professional services related to the Prospectus filed on January 12, 2023, and due diligence procedures in connection with an acquisition.
- (4) There were no audit-related fees during fiscal year 2024 or fiscal year 2023.

The Audit Committee has adopted policies and procedures to oversee the external audit process including engagement letters, estimated fees and solely pre-approving all permitted audit and non-audit work performed by MSL, as applicable. The Audit Committee has pre-approved all fees for audit, audit-related and non-audit work performed.

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PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Annual Report on Form 10-K:

- (1) Financial Statements – See Index on page F-1 of this report
- (2) Financial Statement Schedules – None

(b) The following exhibits are filed herewith as a part of this report

Exhibit Number	Description
3.1.1	Certificate of Incorporation of LightPath Technologies, Inc., filed June 15, 1992 with the Secretary of State of Delaware, which was filed as Exhibit 3.1.1 to our Annual Report on Form 10-K (File No. 000-25748) filed with the Securities and Exchange Commission on September 10, 2020, and is incorporated herein by reference thereto.
3.1.2	Certificate of Amendment to Certificate of Incorporation of LightPath Technologies, Inc., filed October 2, 1995 with the Secretary of State of Delaware, which was filed as exhibit 3.1.2 to our Annual Report on Form 10-K (File No. 000-25748) filed with the Securities and Exchange Commission on September 10, 2020, and is incorporated herein by reference thereto.
3.1.3	Certificate of Designations of Class A common stock and Class E-1 common stock, Class E-2 common stock, and Class E-3 common stock of LightPath Technologies, Inc., filed November 9, 1995 with the Secretary of State of Delaware, which was filed as Exhibit 3.1.3 to our Annual Report on Form 10-K (File No. 000-25748) filed with the Securities and Exchange Commission on September 10, 2020, and is incorporated herein by reference thereto.
3.1.4	Certificate of Designation of Series A Preferred Stock of LightPath Technologies, Inc., filed July 9, 1997 with the Secretary of State of Delaware, which was filed as Exhibit 3.4 to our Annual Report on Form 10-KSB40 filed with the Securities and Exchange Commission on September 11, 1997, and is incorporated herein by reference thereto.
3.1.5	Certificate of Designation of Series B Stock of LightPath Technologies, Inc., filed October 2, 1997 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Quarterly Report on Form 10-QSB (File No. 000-27548) filed with the Securities and Exchange Commission on November 14, 1997, and is incorporated herein by reference thereto.
3.1.6	Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed November 12, 1997 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Quarterly Report on Form 10-QSB (File No. 000-27548) filed with the Securities and Exchange Commission on November 14, 1997, and is incorporated herein by reference thereto.
3.1.7	Certificate of Designation of Series C Preferred Stock of LightPath Technologies, Inc., filed February 6, 1998 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Registration Statement on Form S-3 (File No. 333-47905) filed with the Securities and Exchange Commission on March 13, 1998, and is incorporated herein by reference thereto.
3.1.8	Certificate of Designation, Preferences and Rights of Series D Participating Preferred Stock of LightPath Technologies, Inc. filed April 29, 1998 with the Secretary of State of Delaware, which was filed as Exhibit 1 to our Registration Statement on Form 8-A (File No. 000-27548) filed with the Securities and Exchange Commission on April 28, 1998, and is incorporated herein by reference thereto.

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3.1.9	Certificate of Designation of Series F Preferred Stock of LightPath Technologies, Inc., filed November 2, 1999 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Registration Statement on Form S-3 (File No: 333-94303) filed with the Securities and Exchange Commission on January 10, 2000, and is incorporated herein by reference thereto.
3.1.10	Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed February 28, 2003 with the Secretary of State of Delaware, which was filed as Appendix A to our Proxy Statement (File No. 000-27548) filed with the Securities and Exchange Commission

[on January 24, 2003, and is incorporated herein by reference thereto.](#)

- [3.1.11 Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed March 1, 2016 with the Secretary of State of Delaware, which was filed as Exhibit 3.1.11 to our Quarterly Report on Form 10-Q \(File No: 000-27548\) filed with the Securities and Exchange Commission on November 14, 2016, and is incorporated herein by reference thereto.](#)
- [3.1.12 Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed October 30, 2017 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on October 31, 2017, and is incorporated herein by reference thereto.](#)
- [3.1.13 Certificate of Amendment of Certificate of Designations of Class A Common Stock and Class E-1 Common Stock, Class E-2 Common Stock, and Class E-3 Common Stock of LightPath Technologies, Inc., filed October 30, 2017 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on October 31, 2017, and is incorporated herein by reference thereto.](#)
- [3.1.14 Certificate of Amendment of Certificate of Designation, Preferences and Rights of Series D Participating Preferred Stock of LightPath Technologies, Inc., filed January 30, 2018 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on February 1, 2018, and is incorporated herein by reference thereto.](#)
- [3.1.15 Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed January 31, 2024 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on February 6, 2024, and is incorporated herein by reference thereto.](#)
- [3.2.1 Second Amended and Restated Bylaws of LightPath Technologies, Inc., which was filed as Exhibit 3.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on February 2, 2021, and is incorporated herein by reference thereto.](#)
- [4.1 Description of Securities Registered under Section 12 of the Securities Exchange Act of 1934, as amended.*](#)
- [10.1 Amended and Restated Omnibus Incentive Plan dated October 15, 2002, as amended, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on October 31, 2017, and is incorporated herein by reference thereto.](#)
- [10.2 LightPath Technologies, Inc. Employee Stock Purchase Plan effective January 30, 2015, which was filed as Appendix A to our Definitive Proxy Statement on Schedule 14A \(File No.: 000-27548\) filed with the Securities and Exchange Commission on December 19, 2014, and is incorporated herein by reference thereto.](#)
- [10.3 Sixth Amendment to Lease dated as of July 2, 2014 between LightPath Technologies, Inc. and Challenger Discovery LLC, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on July 8, 2014, and is incorporated herein by reference thereto.](#)
- [10.4 Amendment No. 8 to the Amended and Restated LightPath Technologies, Inc. Omnibus Incentive Plan dated February 8, 2018, which was filed as Exhibit 10.7 to our Quarterly Report on Form 10-Q \(File No.: 000-27548\) filed with the Securities and Exchange Commission on February 13, 2018, and is incorporated herein by reference thereto.](#)
- [10.5 Lease dated April 20, 2018, by and between LightPath Technologies, Inc. and CIO University Tech, LLC, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on April 26, 2018, and is incorporated herein by reference thereto.](#)
- [10.6 First Amendment to Lease, dated January 9, 2019, by and between LightPath Technologies, Inc. and CIO University Tech, LLC, which was filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q \(File No.: 000-27548\) filed with the Securities and Exchange Commission on February 7, 2019, and is incorporated herein by reference thereto.](#)

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- [10.7 Loan Agreement dated February 26, 2019 by and between LightPath Technologies, Inc. and BankUnited, N.A., which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- [10.8 Term Loan Note dated February 26, 2019 by LightPath Technologies, Inc. in favor of BankUnited, N.A., which was filed as Exhibit 10.2 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- [10.9 Revolving Credit Note dated February 26, 2019 by LightPath Technologies, Inc. in favor of BankUnited, N.A., which was filed as Exhibit 10.3 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- [10.10 Guidance Line Note dated February 26, 2019 by LightPath Technologies, Inc. in favor of BankUnited, N.A., which was filed as Exhibit 10.4 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 21, 2019, and is incorporated herein by reference thereto.](#)
- [10.11 Security Agreement dated February 26, 2019 by LightPath Technologies, Inc. in favor of BankUnited, N.A., and joined by GelTech, Inc. and ISP Optics Corporation, which was filed as Exhibit 10.5 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and](#)

[Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)

- 10.12 [Guaranty Agreement \(Term Loan\) dated February 26, 2019 by GelTech Inc., ISP Optics Corporation, LightPath Optical Instrumentation \(Shanghai\) Co., Ltd., LightPath Optical Instrumentation \(Zhenjiang\) Co., Ltd., and ISP Optics Latvia, SIA in favor of BankUnited, N.A., which was filed as Exhibit 10.6 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- 10.13 [Guaranty Agreement \(Revolving Credit\) dated February 26, 2019 by GelTech Inc., ISP Optics Corporation, LightPath Optical Instrumentation \(Shanghai\) Co., Ltd., LightPath Optical Instrumentation \(Zhenjiang\) Co., Ltd., and ISP Optics Latvia, SIA in favor of BankUnited, N.A., which was filed as Exhibit 10.7 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- 10.14 [Guaranty Agreement \(Guidance Line\) dated February 26, 2019 by GelTech Inc., ISP Optics Corporation, LightPath Optical Instrumentation \(Shanghai\) Co., Ltd., LightPath Optical Instrumentation \(Zhenjiang\) Co., Ltd., and ISP Optics Latvia, SIA in favor of BankUnited, N.A., which was filed as Exhibit 10.8 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on March 1, 2019, and is incorporated herein by reference thereto.](#)
- 10.15 [First Amendment to Loan Agreement dated May 6, 2019, and effective February 26, 2019, by and between LightPath Technologies, Inc. and BankUnited, N.A., which was filed as Exhibit 10.10 to our Quarterly Report on Form 10-Q \(File No.: 000-27548\) filed with the Securities and Exchange Commission on May 9, 2019, and is incorporated herein by reference thereto.](#)
- 10.16 [LightPath Technologies, Inc. 2018 Stock and Incentive Compensation Plan, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on November 8, 2018, and is incorporated herein by reference thereto.](#)
- 10.17 [Employment Agreement between LightPath Technologies, Inc. and Mr. Sam Rubin, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on February 26, 2020, and is incorporated herein by reference thereto.](#)
- 10.18 [Letter Agreement, dated November 13, 2020, by and between the Company and J. James Gaynor which was filed as Exhibit 10.1 to our Quarterly Report on Form 10-Q \(File No.: 000-27548\) filed with the Securities and Exchange Commission on February 3, 2021, and is incorporated herein by reference thereto.](#)
- 10.19 [Employment Agreement between LightPath Technologies, Inc. and Mr. Albert Miranda, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on April 22, 2021, and is incorporated herein by reference thereto.](#)

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- 10.20 [Eighth Amendment to Lease Agreement between LightPath Technologies, Inc. and Challenger-Discovery, LLC which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No.: 000-27548\) filed with the Securities and Exchange Commission on May 17, 2021, and is incorporated herein by reference thereto.](#)
- 10.21 [Ninth Amendment to Lease dated as of September 21, 2021, between LightPath Technologies, Inc. and Challenger Discovery LLC, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on September 27, 2021, and is incorporated herein by reference thereto.](#)
- 10.22 [Notice of Default and Waiver dated November 8, 2021 between LightPath Technologies, Inc. and BankUnited, N.A., which was filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q \(File No: 000-27548\) filed with the Securities and Exchange Commission on November 9, 2021, and is incorporated herein by reference thereto.](#)
- 10.23 [Second Amendment to Loan Agreement dated as of December 20, 2021, between LightPath Technologies, Inc. and BankUnited N.A., which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on December 23, 2021, and is incorporated herein by reference thereto.](#)
- 10.24 [Sales Agreement, dated February 15, 2022, by and between LightPath Technologies, Inc. and A.G.P./Alliance Global Partners, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on February 16, 2022, and is incorporated herein by reference thereto.](#)
- 10.25 [Investor Relations Consulting Agreement, dated April 11, 2022, by and between LightPath Technologies, Inc. and MZHCI, LLC, which was filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q \(File No: 000-27548\) filed with the Securities and Exchange Commission on May 12, 2022, and is incorporated herein by reference thereto.](#)
- 10.26 [Third Amendment to Loan Agreement, dated May 11, 2022, by and between LightPath Technologies, Inc. and BankUnited, N.A., which was filed as Exhibit 10.3 to our Quarterly Report on Form 10-Q \(File No: 000-27548\) filed with the Securities and Exchange Commission on May 12, 2022, and is incorporated herein by reference thereto.](#)
- 10.27 [Form of Securities Purchase Agreement, dated as of January 12, 2023, between the Company and each purchaser named in the signature pages thereto, which was filed as Exhibit 10.1 to our Current Report on Form 8-K \(File No: 000-27548\) filed with the Securities and Exchange Commission on January 12, 2023, and is incorporated herein by reference thereto.](#)
- 10.28 [Fourth Amendment to Loan Agreement, dated February 7, 2023, by and between LightPath Technologies, Inc. and BankUnited, N.A., filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q, \(File No: 000-27548\) filed with the Securities and Exchange Commission on February 9,](#)

	2023, and is incorporated herein by reference thereto.
10.29	Fifth Amendment to Loan Agreement, dated May 9, 2023, by and between LightPath Technologies, Inc. and BankUnited, N.A., filed as Exhibit 10.2 to our Quarterly Report on Form 10-Q, (File No: 000-27548) filed with the Securities and Exchange Commission on May 11, 2023, and is incorporated herein by reference thereto.
10.30	Bridge Note dated August 6, 2024 by LightPath Technologies, Inc. in favor of Lytton-Kambara Foundation which was filed as Exhibit 10.1 to our Current Report on Form 8-K (File No: 000-27548) filed with the Securities and Exchange Commission on August 12, 2024, and is incorporated herein by reference thereto.
14.1	Code of Business Conduct and Ethics, which was filed as Exhibit 14.1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on May 3, 2016, and is incorporated herein by reference thereto.
14.2	Code of Business Conduct and Ethics for Senior Financial Officers, which was filed as Exhibit 14.2 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on May 3, 2016, and is incorporated herein by reference thereto.
19.1	Guide for Trading in Securities*
21.1	Subsidiaries of the Registrant.*
23.1	Consent of MSL, P.A.*
24	Power of Attorney.*
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934.*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 of Chapter 63 of Title 18 of the United States Code.*
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350 of Chapter 63 of Title 18 of the United States Code.*
97.1	Clawback Policy.*
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Presentation Linkbase Document*
104	The cover page from the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2024, formatted in iXBRL.

*filed herewith

Item 16. Form 10-K Summary.

None.

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LightPath Technologies, Inc.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of LightPath Technologies, Inc. (the “Company”) as of June 30, 2024 and 2023, and the related consolidated statements of comprehensive income (loss), changes in stockholders’ equity, and cash flows for each of the years ended June 30, 2024 and 2023, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of June 30, 2024 and 2023, and the results of its operations and its cash flows for each of the years ended June 30, 2024 and 2023, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated financial statements based on our 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our 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 consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our 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 consolidated 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 consolidated 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 consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing separate opinions on the critical audit matter or on the accounts or disclosures to which they relate.

Inventory Allowance

As disclosed in Notes 2 and 5 of the notes to the consolidated financial statements, the Company records an estimated inventory allowance to state the Company’s inventories at the lower of cost or net realizable value. The Company relies on, among other things, past usage, sales experience, recent order and quote activity, future sales forecasts, and its strategic business plan to develop the estimate. As a result of management’s assessment, the Company recorded an inventory allowance of approximately \$1,225,000 as of June 30, 2024.

Auditing management’s estimate of the inventory allowance involved subjective evaluation and high degree of auditor judgement due to significant assumptions involved in estimating future inventory turnover and sales.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. We obtained an understanding and evaluated the design of internal controls that address the risks of material misstatement relating to recording inventory at the lower of cost or net realizable value. We tested the accuracy and completeness of the underlying data used in calculating the inventory allowance, including testing of a sample of inventory usage transactions, and recomputed the allowance calculation. We also evaluated the Company’s ability to accurately estimate the assumptions used to develop the estimate by comparing historical allowance amounts to the history of actual inventory write-offs. Furthermore, we considered management’s business plan and forecasts of future sales.

We have served as the Company’s auditor since 2017.

/s/ MSL, P.A.

Orlando, Florida
September 19, 2024

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LIGHTPATH TECHNOLOGIES, INC. Consolidated Balance Sheets

	<u>June 30,</u> <u>2024</u>	<u>June 30,</u> <u>2023</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 3,480,268	\$ 4,687,004
Restricted cash	—	2,457,486
Trade accounts receivable, net of allowance of \$25,676 and \$18,502	4,928,931	6,634,574
Inventories, net	6,551,059	7,410,734
Prepaid expenses and deposits	445,900	570,293

Other current assets	131,177	—
Total current assets	15,537,335	21,760,091
Property and equipment, net	15,210,612	12,810,930
Operating lease right-of-use assets	6,741,549	9,571,604
Intangible assets, net	3,650,739	3,332,715
Goodwill	6,764,127	5,854,905
Deferred tax assets, net	123,000	140,000
Other assets	59,602	65,939
Total assets	<u>\$ 48,086,964</u>	<u>\$ 53,536,184</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 3,231,713	\$ 2,574,135
Accrued liabilities	1,911,867	662,242
Accrued payroll and benefits	1,446,452	1,499,896
Operating lease liabilities, current	1,059,998	969,890
Loans payable, current portion	209,170	1,023,814
Finance lease obligation, current portion	177,148	103,646
Total current liabilities	8,036,348	6,833,623
Deferred tax liabilities, net	326,197	465,000
Accrued liabilities, noncurrent	611,619	—
Finance lease obligation, less current portion	528,753	341,201
Operating lease liabilities, noncurrent	8,058,502	8,393,248
Loans payable, less current portion	325,880	1,550,587
Total liabilities	17,887,299	17,583,659
Commitments and Contingencies		
Stockholders' equity:		
Preferred stock: Series D, \$0.01 par value, voting; 500,000 shares authorized; none issued and outstanding	—	—
Common stock: Class A, \$0.01 par value, voting; 94,500,000 and 44,500,000 shares authorized; 39,254,643 and 37,344,739 shares issued and outstanding	392,546	373,447
Additional paid-in capital	245,140,758	242,808,771
Accumulated other comprehensive income	509,936	606,536
Accumulated deficit	(215,843,575)	(207,836,229)
Total stockholders' equity	30,199,665	35,952,525
Total liabilities and stockholders' equity	<u>\$ 48,086,964</u>	<u>\$ 53,536,184</u>

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

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LIGHTPATH TECHNOLOGIES, INC.
Consolidated Statements of Comprehensive Income (Loss)

	Year Ended June 30,	
	2024	2023
Revenue, net	\$ 31,726,192	\$ 32,933,949
Cost of sales	23,094,946	21,859,126
Gross margin	8,631,246	11,074,823
Operating expenses:		
Selling, general and administrative	12,297,383	11,437,241
New product development	2,400,420	2,145,413
Amortization of intangible assets	1,635,523	1,125,083
Loss (gain) on disposal of property and equipment	124,584	(78,373)
Total operating expenses	16,457,910	14,629,364
Operating loss	(7,826,664)	(3,554,541)
Other income (expense):		
Interest expense, net	(191,862)	(283,266)
Other income, net	78,670	24,970
Total other expense, net	(113,192)	(258,296)
Loss before income taxes	(7,939,856)	(3,812,837)
Income tax provision	67,490	234,034
Net loss	<u>\$ (8,007,346)</u>	<u>\$ (4,046,871)</u>
Foreign currency translation adjustment	(96,600)	(328,589)
Comprehensive loss	<u>\$ (8,103,946)</u>	<u>\$ (4,375,460)</u>
Loss per common share (basic)	\$ (0.21)	\$ (0.13)

Number of shares used in per share calculation (basic)	37,944,935	31,637,445
Loss per common share (diluted)	\$ (0.21)	\$ (0.13)
Number of shares used in per share calculation (diluted)	37,944,935	31,637,445

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

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LIGHTPATH TECHNOLOGIES, INC.
Consolidated Statements of Changes in Stockholders' Equity

	Class A Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balances at June 30, 2022	27,046,790	\$ 270,468	\$ 232,315,003	\$ 935,125	\$ (203,789,358)	\$ 29,731,238
Issuance of common stock for:						
Employee Stock Purchase Plan	33,523	335	40,045	—	—	40,380
Exercise of Stock Options, RSUs & RSAs, net	1,173,516	11,735	34,165	—	—	45,900
Issuance of common stock under public equity placement	9,090,910	90,909	9,108,601	—	—	9,199,510
Stock-based compensation on stock options, RSAs & RSUs	—	—	1,310,957	—	—	1,310,957
Foreign currency translation adjustment	—	—	—	(328,589)	—	(328,589)
Net loss	—	—	—	—	(4,046,871)	(4,046,871)
Balances at June 30, 2023	37,344,739	373,447	242,808,771	606,536	(207,836,229)	35,952,525
Issuance of common stock for:						
Employee Stock Purchase Plan	30,447	304	39,373	—	—	39,677
Exercise of Stock Options, RSUs & RSAs, net	945,188	9,452	(9,452)	—	—	—
Issuance of common stock under public equity placement	585,483	5,855	800,477	—	—	806,332
Issuance of common stock for acquisition of Visimid	348,786	3,488	482,566	—	—	486,054
Stock-based compensation on stock options, RSUs & RSAs	—	—	1,019,023	—	—	1,019,023
Foreign currency translation adjustment	—	—	—	(96,600)	—	(96,600)
Net loss	—	—	—	—	(8,007,346)	(8,007,346)
Balances at June 30, 2024	39,254,643	\$ 392,546	\$ 245,140,758	\$ 509,936	\$ (215,843,575)	\$ 30,199,665

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

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LIGHTPATH TECHNOLOGIES, INC.
Consolidated Statements of Cash Flows

	Year Ended June 30,	
	2024	2023
Cash flows from operating activities:		
Net loss	\$ (8,007,346)	\$ (4,046,871)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	4,048,409	3,174,569
Interest from amortization of debt costs	—	58,774
Loss (gain) on disposal of property and equipment	124,584	(78,373)
Stock-based compensation on stock options, RSUs & RSAs, net	1,019,023	1,310,957
Provision for credit losses	(4,426)	8,158
Change in operating lease assets and liabilities	183,393	(231,561)
Inventory write-offs to allowance	136,676	316,297
Deferred taxes	(121,803)	(73,015)
Changes in operating assets and liabilities:		
Trade accounts receivable	1,498,698	(1,431,440)
Other current assets	(131,177)	—
Inventories	960,739	(741,604)
Prepaid expenses and deposits	133,810	(97,792)
Accounts payable and accrued liabilities	680,457	(977,622)
Net cash provided by (used in) operating activities	521,037	(2,809,523)
Cash flows from investing activities:		
Purchase of property and equipment	(2,182,805)	(3,077,154)

Proceeds from sale of equipment	—	209,169
Proceeds from sale-leaseback of equipment	364,710	—
Acquisition of Visimid Technologies, net of cash acquired	(847,141)	—
Net cash used in investing activities	(2,665,236)	(2,867,985)
Cash flows from financing activities:		
Proceeds from sale of common stock from Employee Stock Purchase Plan	39,677	40,380
Proceeds from issuance of common stock under public equity placement	806,332	9,199,510
Borrowings on loans payable	278,926	141,245
Payments on loans payable	(2,459,474)	(1,852,256)
Repayment of finance lease obligations	(131,901)	(73,003)
Net cash (used in) provided by financing activities	(1,466,440)	7,455,876
Effect of exchange rate on cash and cash equivalents	(53,583)	(141,769)
Change in cash, cash equivalents and restricted cash	(3,664,222)	1,636,599
Cash, cash equivalents and restricted cash, beginning of period	7,144,490	5,507,891
Cash, cash equivalents and restricted cash, end of period	\$ 3,480,268	\$ 7,144,490
Supplemental disclosure of cash flow information:		
Interest paid in cash	\$ 196,541	\$ 221,773
Income taxes paid	\$ 166,858	\$ 428,914
Supplemental disclosure of non-cash investing & financing activities:		
Purchase of equipment through finance lease arrangements	\$ 396,058	\$ 451,058
Equipment deposit paid in restricted stock	—	\$ 45,900
Operating right-of-use assets acquired in exchange for operating lease liabilities	\$ 92,136	—

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

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

1. Organization and History

LightPath Technologies, Inc. (“LightPath”, the “Company”, “we”, “us” or “our”) was incorporated in Delaware in 1992. It was the successor to LightPath Technologies Limited Partnership formed in 1989, and its predecessor, Integrated Solar Technologies Corporation formed in 1985. The Company completed its initial public offering during fiscal year 1996. On April 14, 2000, the Company acquired Horizon Photonics, Inc. (“Horizon”). On September 20, 2000, the Company acquired Geltech, Inc. (“Geltech”). In November 2005, we formed LightPath Optical Instrumentation (Shanghai) Co., Ltd (“LPOI”), a wholly-owned subsidiary located in Jiading, People’s Republic of China. In December 2013, we formed LightPath Optical Instrumentation (Zhenjiang) Co., Ltd (“LPOIZ”), a wholly-owned subsidiary located in Zhenjiang, Jiangsu Province, People’s Republic of China. Effective February 28, 2023, the legal entities of LPOI and LPOIZ were merged, with LPOIZ as the surviving company. In December 2016, we acquired ISP Optics Corporation, a New York corporation (“ISP”), and its wholly-owned subsidiary, ISP Optics Latvia, SIA, a limited liability company founded in 1998 under the Laws of the Republic of Latvia (“ISP Latvia”).

In July 2023, we acquired Liebert Consulting LLC, dba Visimid Technologies (“Visimid”). Visimid is an engineering and design firm specializing in thermal imaging, night vision and IOT applications. Visimid provides design and consulting services for DoD contractors, commercial and industrial customers, and OEMs for original new products. Visimid’s core competency is developing and producing custom thermal and night vision cores. We believe that Visimid’s capabilities are aligned with our strategy to focus on engineered solutions. Visimid’s facility is located in Plano, TX.

LightPath is a manufacturer of optical components, assemblies and sub-systems, including precision molded glass aspheric optics, infrared optics, thermal imaging assemblies and cores, and other optical components used in products that manipulate light. LightPath designs, develops and manufactures optical components and sub-system level lens assemblies utilizing advanced optical manufacturing processes. LightPath products are incorporated into a variety of applications by customers in many industries, including defense products, night vision systems, medical devices, laser aided industrial tools, automotive safety applications, telecommunications, machine vision and sensors, among others. Many of our optical assemblies and sub-systems consist of several products that we manufacture.

As used herein, the terms “LightPath,” the “Company,” “we,” “us” or “our,” refer to LightPath individually or, as the context requires, collectively with its subsidiaries on a consolidated basis.

2. Significant Accounting Policies

Consolidated Financial Statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Management estimates. Management makes estimates and assumptions during the preparation of the Company’s Consolidated Financial Statements that affect amounts reported in the Consolidated Financial Statements and accompanying notes. Such estimates and assumptions could change in the future as more information becomes available, which, in turn, could impact the amounts reported and disclosed herein.

Cash and cash equivalents consist of cash in the bank and cash equivalents with maturities of 90 days or less when purchased. The Company maintains its cash accounts in various institutions, generally with high credit ratings. The Company’s domestic cash accounts are maintained in one financial institution, and balances may exceed Federal insured limits at times. The Company’s foreign cash accounts are not insured.

Restricted cash is presented in the Consolidated Balance Sheet as of June 30, 2023, and consists of amounts held in a restricted account as collateral for a loan agreement. See Note 14, *Loans Payable*, to these Consolidated Financial Statements for additional information. Our restricted cash was held in a money market account. Cash and cash equivalents and restricted cash presented in the Consolidated Balance Sheet as of June 30, 2023 are combined in the Consolidated Statements of Cash Flows for the years ended June 30, 2024 and 2023. The Company did not have any restricted cash as of June 30, 2024.

Allowance for credit losses is based on the best estimate of the amount of probable credit losses in existing accounts receivable. The Company determines the allowance based on historical write-off experience and expected future default probabilities based on our ongoing evaluations of our customers' financial condition. The allowance consists of an amount identified for specific customers and an amount based on overall estimated exposure. Accounts receivable are customer obligations due under normal trade terms, which are generally net 30 days. If the Company's actual collection experience changes, revisions to its allowance may be required. After all attempts to collect a receivable have failed, the receivable is written off against the allowance.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Inventories, which consist principally of raw materials, tooling, work-in-process and finished lenses, collimators and assemblies are stated at the lower of cost or net realizable value, on a first-in, first-out basis. Inventory costs include materials, labor and manufacturing overhead. Acquisition of goods from our vendors has a purchase burden added to cover customs, shipping and handling costs. Fixed costs related to excess manufacturing capacity are expensed when incurred. The Company looks at the following criteria for parts to consider for the inventory allowance: (i) items that have not been sold in two years and (ii) items that have not been purchased in two years. These items, as identified, are allowed for at 100%, as well as allowing 50% for other items deemed to be slow moving within the last twelve months and allowing 25% for items deemed to have low material usage within the last six months. Items of which we have greater than a two-year supply are also reserved at 25% to 100%, depending on usage rates. The parts identified are adjusted for recent order and quote activity to determine the final inventory allowance.

Property and equipment are stated at cost and depreciated using the straight-line method over the estimated useful lives of the related assets ranging from one to ten years. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful lives of the related assets using the straight-line method. Construction in process represents the accumulated costs of assets not yet placed in service.

Long-lived assets, such as property, plant, and equipment and purchased intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to its estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. The Company did not record any impairment of long-lived assets during the fiscal years ended June 30, 2024 and 2023. Assets to be disposed of would be separately presented in the Consolidated Balance Sheet and reported at the lower of the carrying amount or fair value less costs to sell, and would no longer be depreciated. The assets and liabilities of a disposed group classified as held for sale would be presented separately in the appropriate asset and liability sections of the Consolidated Balance Sheet.

Goodwill and amortizable intangible assets acquired in a business combination are recognized at fair value using generally accepted valuation methods. Purchased intangible assets other than goodwill are amortized over their useful lives unless these lives are determined to be indefinite. Purchased intangible assets are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets, generally two to fifteen years. The Company periodically reassesses the useful lives of its intangible assets when events or circumstances indicate that useful lives have significantly changed from the previous estimate. Amortizable intangible assets consist primarily of customer relationships, know-how/trade secrets and trademarks. They are generally valued as the present value of estimated cash flows expected to be generated from the asset using a risk-adjusted discount rate. When determining the fair value of our intangible assets, estimates and assumptions about future expected revenue and remaining useful lives are used. Goodwill and intangible assets are tested for impairment on an annual basis and during the period between annual tests if events or changes in circumstances indicate that the carrying value of goodwill or amortizable intangible assets may not be recoverable.

The Company will assess the qualitative factors to determine whether it is more likely than not that the fair value of its reporting unit is less than its carrying amount as a basis for determining whether it is necessary to perform the goodwill impairment analysis. If the Company determines that it is more likely than not that its fair value is less than its carrying amount, then the goodwill impairment test is performed. The first step, identifying a potential impairment, compares the fair value of the reporting unit with its carrying amount. If the carrying amount exceeds its fair value, the second step would need to be performed; otherwise, no further steps are required. The second step, measuring the impairment loss, compares the implied fair value of the goodwill with the carrying amount of the goodwill. Any excess of the goodwill carrying amount over the implied fair value is recognized as an impairment loss, and the carrying value of goodwill is written down to fair value. The Company did not record any impairment of goodwill or amortizable intangible assets during the fiscal years ended June 30, 2024 or 2023.

Leases. The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities and operating lease liabilities on the Company's consolidated balance sheet. Finance leases are included in property, plant and equipment, current portion of long-term debt and long-term debt, net of current portion on the consolidated balance sheets.

Operating lease ROU assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. As most of our leases do not provide an implicit rate, the Company uses an estimate of its incremental borrowing rate based on observed market data and other information available at the lease commencement date. The operating lease ROU assets also include any lease payments made and exclude lease incentives. Lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise such options. The Company does not record leases on the consolidated balance sheet with an initial term of one year or less. The Company does not separate lease and non-lease components but rather accounts for each separate component as a single lease component for all underlying classes of assets. Variable lease payments are expensed as incurred and are not included within the operating lease ROU asset and lease liability calculation. Variable lease payments primarily include reimbursements of costs incurred by lessors for common area maintenance and utilities. Lease expense for minimum operating lease payments is recognized on a straight-line basis over the lease term.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Income taxes are accounted for under the asset and liability method. Deferred income tax assets and liabilities are computed on the basis of differences between the financial statement and tax basis of assets and liabilities that will result in taxable or deductible amounts in the future based upon enacted tax laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances have been established to reduce deferred tax assets to the amount expected to be realized.

The Company has not recognized a liability for uncertain tax positions. A reconciliation of the beginning and ending amount of unrecognized tax benefits or penalties has not been provided since there has been no unrecognized benefit or penalty. If there were an unrecognized tax benefit or penalty, the Company would recognize interest accrued related to unrecognized tax benefits in interest expense and penalties in operating expenses.

The Company files United States (“U.S.”) Federal income tax returns, as well as tax returns in various states and foreign jurisdictions. Open tax years subject to examination by the Internal Revenue Service (“IRS”) generally remain open for three years from the filing date. Tax years subject to examination by the state jurisdictions generally remain open for up to four years from the filing date. In Latvia, tax years subject to examination remain open for up to five years from the filing date and, in China, tax years subject to examination remain open for up to ten years from the filing date.

Our cash, cash equivalents and restricted cash totaled approximately \$3.5 million at June 30, 2024. Of this amount, less than 50% was held by our foreign subsidiaries in China and Latvia. These foreign funds were generated in China and Latvia as a result of foreign earnings. Historically, we considered unremitted earnings held by our foreign subsidiaries to be permanently reinvested. However, during fiscal 2020, we began declaring intercompany dividends to remit a portion of the earnings of our foreign subsidiaries to the U.S. parent company. During fiscal year 2020, we began to accrue for the applicable Chinese withholding taxes on the portion of earnings that we intend to repatriate. It is still our intent to reinvest a significant portion of earnings generated by our foreign subsidiaries, however we also plan to repatriate a portion of their earnings.

With respect to the funds generated by our foreign subsidiaries in China, the retained earnings of the legal entity must equal at least 50% of the registered capital before any funds can be repatriated. During fiscal years 2024 and 2023, we repatriated approximately \$1.4 million and \$1.9 million, respectively, from LPOIZ. As of June 30, 2024, LPOIZ had approximately \$1.6 million in retained earnings available for repatriation, based on earnings accumulated through December 31, 2023, the end of the most recent statutory tax year, that remained undistributed as of June 30, 2024. LPOI did not have any earnings available for repatriation as of the date of merger with LPOIZ.

Beginning in fiscal year 2019, earnings from the Company’s non-U.S. subsidiaries were subject to the global intangible low-taxed income (“GILTI”) inclusion pursuant to U.S. income tax rules. See Note 9, *Income Taxes*, to these Consolidated Financial Statements for additional information.

Revenue recognition – See Note 4, *Revenue*, to these Consolidated Financial Statements for additional information.

VAT is computed on the gross sales price on all sales of the Company’s products sold in the People’s Republic of China and Latvia. The VAT rates range up to 21%, depending on the type of products sold. The VAT may be offset by VAT paid by the Company on raw materials and other materials included in the cost of producing or acquiring its finished products. The Company recorded VAT receivables and payables on a net basis in the accompanying Consolidated Financial Statements. These amounts were not significant as of June 30, 2024 and 2023.

New product development costs are expensed as incurred.

Stock-based compensation is measured at grant date, based on the fair value of the award, and is recognized as an expense over the employee’s requisite service period. We estimate the fair value of each restricted stock unit or stock option as of the date of grant using the Black-Scholes-Merton pricing model. Our directors, officers, and key employees were granted stock-based compensation through our Amended and Restated Omnibus Incentive Plan, as amended (the “Omnibus Plan”), through October 2018 and after that date, the 2018 Stock and Incentive Compensation Plan (the “SICP”). Most options granted under the Omnibus Plan and the SICP vest ratably over two to four years and generally have four to ten-year contract lives. The volatility rate is based on historical trends in common stock closing prices and the expected term was determined based primarily on historical experience of previously outstanding awards. The interest rate used is the U.S. Treasury interest rate for constant maturities. The likelihood of meeting targets for option grants that are performance based are evaluated each quarter. If it is determined that meeting the targets is probable, then the compensation expense will be amortized over the remaining vesting period.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Fair value of financial instruments. The Company accounts for financial instruments in accordance with the Financial Accounting Standards Board’s (“FASB”) Accounting Standards Codification Topic 820, “Fair Value Measurements and Disclosures” (“ASC 820”), which provides a framework for measuring fair value and expands required disclosure about fair value measurements of assets and liabilities. ASC 820 defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. ASC 820 also establishes a fair value hierarchy which requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. The standard describes three levels of inputs that may be used to measure fair value:

Level 1 - Quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted prices included within Level 1 that are either directly or indirectly observable.

Level 3 - Unobservable inputs that are supported by little or no market activity, therefore requiring an entity to develop its own assumptions about the assumptions that market participants would use in pricing.

Fair value estimates discussed herein are based upon certain market assumptions and pertinent information available to management.

The respective carrying value of financial instruments recorded on the consolidated balance sheets approximated their fair values. These financial instruments include accounts receivable, accounts payable and accrued liabilities. Fair values were assumed to approximate carrying values for these financial instruments since they are short term in nature and their carrying amounts approximate fair values or they are receivable or payable on demand. The fair value of the Company's finance lease obligations and loans payable approximate their carrying values, based upon current rates available to us. See Note 13, *Leases* and Note 14, *Loans Payable*, to these Consolidated Financial Statements for additional information. Management considers these fair value estimates to be level 2 fair value measurements.

The Company does not have any other financial or non-financial assets or liabilities that would be characterized as Level 1, Level 2 or Level 3 instruments.

Debt issuance costs are recorded as a reduction to the carrying value of the related notes payable, by the same amount, and are amortized ratably over the term of the related note.

Comprehensive income (loss) is defined as the change in equity (net assets) of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. It includes all changes in equity during a period, except those resulting from investments by owners and distributions to owners. Comprehensive income (loss) has two components, net income, and other comprehensive income (loss), and is included on the Consolidated Statements of Comprehensive Income (Loss). Our other comprehensive income consists of foreign currency translation adjustments made for financial reporting purposes.

Business segments. As the Company only operates in principally one reportable business segment, no additional reporting is required.

Recent accounting pronouncements. There are no new accounting pronouncements issued by the FASB that are not yet effective for the Company for the year ended June 30, 2024 that are expected to have a material impact on the Consolidated Financial Statements.

3. Acquisition of Visimid Technologies

In July 2023, the Company acquired Visimid, pursuant to a Membership Interest Purchase Agreement dated as of July 25, 2023 (the "Acquisition Date").

Part of the Company's growth strategy is to identify appropriate opportunities that would enhance our profitable growth through acquisition. Visimid is an engineering and design firm specializing in thermal imaging, night vision and internet of things ("IOT") applications. Visimid provides design and consulting services for Department of Defense ("DoD") contractors, commercial and industrial customers, and original equipment manufacturers ("OEMs") for original new products. Visimid's core competency is developing and producing custom thermal and night vision cores. We believe that Visimid's capabilities are aligned with our strategy to focus on engineered solutions.

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LIGHTPATH TECHNOLOGIES, INC. Notes to Consolidated Financial Statements (continued)

The Company's consolidated financial statements reflect the financial results of Visimid beginning on the Acquisition Date. The purchase price included \$1 million in cash, \$1,550,000 of restricted stock, \$150,000 of assumed bank debt, and an earnout which is contingent upon the award and completion of a specific customer contract. Of the restricted stock payable as part of the purchase price, \$150,000 (81,610 shares) was issued at closing, with the balance to be issued in four equal installments of \$350,000 each, on January 1, 2024, July 1, 2024, January 1, 2025 and July 1, 2025. The number of shares is based on the average closing price of the Company's Class A common stock, as reported by Bloomberg, for the five trading days prior to each stock issuance. For the January 1, 2024 installment, 267,176 shares were issued.

The total purchase price, net of cash acquired and including the estimated potential earnout, is approximately \$2.7 million, based on present values as of the Acquisition Date. Of this amount, \$600,000 was paid at closing, cash installments of \$150,000 and \$125,000 were paid in October 2023 and January 2024, respectively, per the terms of the purchase agreement, and the remaining cash and stock payments, including the estimated potential earnout, have been accrued and are included in Accrued liabilities and Accrued liabilities, noncurrent in the accompanying consolidated balance sheet as of June 30, 2024.

The estimated fair values of the assets acquired and liabilities assumed were recorded as of the Acquisition Date. As part of the valuation analysis, the Company identified intangible assets, including customer relationships, customer backlog, trade secrets and trademarks. The customer backlog, customer relationships, trade secrets and trademarks were determined to have estimated values of approximately \$464,000, \$122,000, \$925,000 and \$442,000, respectively, and estimated useful lives of 1 year for customer backlog, and 10 years for customer relationships, trade secrets and trademarks. The estimated fair value of identifiable intangible assets is determined primarily using the "income approach", which requires a forecast of all future cash flows. The goodwill recognized is attributable primarily to expected synergies and the assembled workforce of Visimid. The goodwill is expected to be deductible for income tax purposes.

For the fiscal year ended June 30, 2024, the Company incurred approximately \$98,000, in acquisition costs. These costs are included in the consolidated statements of comprehensive income (loss) in the line item entitled "Selling, general and administrative." This is in addition to the previously disclosed \$140,000 in acquisition costs which were recorded during the fiscal year ended June 30, 2023.

Prior to the Acquisition, the Company had a preexisting relationship with Visimid. The Company contracted Visimid for engineering services and purchased infrared camera cores from Visimid on an arms' length basis. The Company had also partnered with Visimid for the development of the Mantis camera.

4. Revenue

Product Revenue

The Company manufactures optical components and higher-level assemblies, including precision molded glass aspheric optics, molded and diamond-turned infrared aspheric lenses, and other optical materials used to produce products that manipulate light. The Company designs, develops, manufactures, and distributes optical components and assemblies utilizing advanced optical manufacturing processes. The Company also provide engineering services and perform research and development for optical solutions for a wide range of optics markets. Revenue is derived primarily from the sale of optical components and assemblies.

Revenue Recognition

Revenue is generally recognized upon transfer of control, including the risks and rewards of ownership, of products or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those products or services. The Company generally bears all costs, risk of loss, or damage and retains title to the goods up to the point of transfer of control of products to customers. Shipping and handling costs are included in the cost of goods sold. Revenue is presented net of sales taxes and any similar assessments.

Customary payment terms are granted to customers, based on credit evaluations. The Company does not have any contracts where revenue is recognized, but the customer payment is contingent on a future event. Deferred revenue is recorded when cash payments are received or due in advance of the Company's performance. Deferred revenue was \$725,000 and \$314,000 as of June 30, 2024 and 2023, respectively, and is included in accrued liabilities in the accompanying consolidated balance sheets.

Nature of Products

Revenue from the sale of optical components and assemblies is recognized upon transfer of control, including the risks and rewards of ownership, to the customer. The performance obligations for the sale of optical components and assemblies are satisfied at a point in time. Product development agreements for engineering services are generally short-term in nature, with revenue recognized upon satisfaction of the performance obligation, and transfer of control of the agreed-upon deliverable. Visimid has one longer-term order with a defense customer which includes both product development and hardware deliverables where similar revenue recognition criteria will be applied.

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LIGHTPATH TECHNOLOGIES, INC. Notes to Consolidated Financial Statements (continued)

The Company previously organized its products in three groups: precision molded optics ("PMO"), infrared, and specialty products. Revenues from product development agreements for engineering services were included in specialty products. With our strategic transition into more value-added solutions, and the addition of Visimid in July 2023, we reorganized our products into four product groups: infrared components, visible components, assemblies and modules, and engineering services. Assemblies and modules were previously included in PMO, infrared or specialty products, depending on the lens type.

Revenue by product group for the fiscal years ended June 30, 2024 and 2023 was as follows, with fiscal year 2023 amounts reclassified from those previously reported to conform to current classification:

	Year Ended June 30,	
	2024	2023
Infrared components	\$ 14,089,277	\$ 14,392,960
Visible components	11,233,737	13,438,814
Assemblies and modules	4,451,165	4,680,354
Engineering services	1,952,013	421,821
Total revenue	<u>\$ 31,726,192</u>	<u>\$ 32,933,949</u>

5. Inventories, net

The components of inventories include the following:

	June 30, 2024	June 30, 2023
Raw materials	\$ 3,112,428	\$ 2,999,879
Work in process	2,333,240	2,909,439
Finished goods	2,330,287	2,626,106
Allowance for obsolescence	(1,224,896)	(1,124,690)
	<u>\$ 6,551,059</u>	<u>\$ 7,410,734</u>

During fiscal years 2024 and 2023, the Company evaluated all allowed items and disposed of approximately \$137,000 and \$316,000, respectively, of inventory parts and wrote them off against the allowance for obsolescence.

The value of tooling in raw materials, net of the related allowance for obsolescence, was approximately \$1.4 million and \$1.5 million at June 30, 2024 and 2023, respectively.

6. Property and Equipment, net

Property and equipment consist of the following:

	Estimated Lives (Years)	June 30, 2024	June 30, 2023
Manufacturing equipment	5 - 10	\$ 22,582,429	\$ 22,296,320

Computer equipment and software	3 - 5	970,494	973,549
Furniture and fixtures	5	349,932	350,289
Leasehold improvements	5 - 10	8,964,714	2,742,344
Construction in progress		646,217	3,067,896
Total property and equipment		33,513,786	29,430,398
Less accumulated depreciation and amortization		(18,303,174)	(16,619,468)
Total property and equipment, net		<u>\$ 15,210,612</u>	<u>\$ 12,810,930</u>

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

7. Goodwill and Intangible Assets

In connection with the December 2016 acquisition of ISP, the Company identified intangible assets, which were recorded at fair value and are being amortized on a straight-line basis over their useful lives. The excess purchase price over the fair values of all identified assets and liabilities was recorded as goodwill, attributable primarily to expected synergies and the assembled workforce of ISP.

The increase in goodwill during the year ended June 30, 2024 was due to the acquisition of Visimid. See Note 3, *Acquisition of Visimid Technologies*, to these consolidated financial statements, for more information.

There have been no events or changes in circumstances that indicate the carrying value of goodwill may not be recoverable.

Identifiable intangible assets were comprised of:

	Useful Lives (Years)	June 30, 2024	June 30, 2023
Customer relationships	10 - 15	\$ 3,712,300	\$ 3,590,000
Trade secrets	8 - 10	4,197,304	3,272,000
Trademarks	8 - 10	4,256,418	3,814,000
Backlog	1	463,525	—
Total intangible assets		12,629,547	10,676,000
Less accumulated amortization		(8,978,808)	(7,343,285)
Total intangible assets, net		<u>\$ 3,650,739</u>	<u>\$ 3,332,715</u>

Future amortization of identifiable intangible assets is as follows:

Fiscal year ending:

June 30, 2025	\$ 884,654
June 30, 2026	388,336
June 30, 2027	388,336
June 30, 2028	388,336
June 30, 2029	388,336
After June 30, 2029	1,212,741
	<u>\$ 3,650,739</u>

8. Stockholders' Equity

Effective January 31, 2024, the Company's authorized capital stock increased from 55,000,000 to 105,000,000 shares, comprised of 100,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share.

Of the 5,000,000 shares of preferred stock authorized, the Board of Directors has previously designated:

- 250 shares of preferred stock as Series A Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A common stock and may not be reissued;
- 300 shares of preferred stock as Series B Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A common stock and may not be reissued;
- 500 shares of preferred stock as Series C Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A common stock and may not be reissued;
- 500,000 shares of preferred stock as Series D Preferred Stock, none of which have been issued; and
- 500 shares of our preferred stock as Series F Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A common stock and may not be reissued.

Of the 100,000,000 shares of common stock authorized, the Board of Directors has previously designated 94,500,000 shares authorized as Class A common stock. The stockholders of Class A common stock are entitled to one vote for each share held. The remaining 5,500,000 shares of authorized common stock were designated as Class E-1 common stock, Class E-2 common stock, or Class E-3 common stock, all previously outstanding shares of which have been previously redeemed or converted into shares of Class A common stock.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

9. Income Taxes

For financial reporting purposes, income (loss) before income taxes includes the following components:

	Year Ended June 30,	
	2024	2023
Pretax income (loss):		
United States	\$ (8,562,920)	\$ (5,697,853)
Foreign	623,064	1,885,016
Loss before income taxes	<u>\$ (7,939,856)</u>	<u>\$ (3,812,837)</u>

The components of the provision for income taxes are as follows:

	Year Ended June 30,	
	2024	2023
Current:		
Federal tax	\$ -	\$ -
State	3,800	3,799
Foreign	185,493	303,235
Total current	<u>189,293</u>	<u>307,034</u>
Deferred:		
Federal tax	17,000	3,000
State	-	-
Foreign	(138,803)	(76,000)
Total deferred	<u>(121,803)</u>	<u>(73,000)</u>
Total income tax provision	<u>\$ 67,490</u>	<u>\$ 234,034</u>

The reconciliation of income tax computed at the U.S. federal statutory rates to the total income tax provision is as follows:

	Year Ended June 30,	
	2024	2023
U.S. federal statutory tax rate	21.0%	21.0%
Income tax provision reconciliation:		
Tax at statutory rate:	\$ (1,667,370)	\$ (800,696)
Net foreign income subject to lower tax rate	(99,300)	(396,742)
State income taxes, net of federal benefit	(299,233)	(303,366)
Valuation allowance	1,026,000	(3,331,277)
NOL expiration and adjustments	1,325,111	4,015,752
GILTI	-	192,452
Federal research and development and other credits	(150,873)	491,112
Stock-based compensation	(4,134)	(34,976)
Other permanent differences	(64,794)	(57,762)
Other, net	2,083	459,537
	<u>\$ 67,490</u>	<u>\$ 234,034</u>

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”) was signed into law, which, among other things, is intended to provide emergency assistance to qualifying businesses and individuals. The Company elected to utilize the payroll tax deferral under the CARES Act, resulting in cash savings of approximately \$325,000, accrued as of June 30, 2021. Half of this amount was remitted on December 31, 2021, with the remainder remitted on December 31, 2022 and no balance due as of June 30, 2023.

Income Tax Law of the People’s Republic of China

The Company’s Chinese subsidiaries, LPOI and LPOIZ, are governed by the Income Tax Law of the People’s Republic of China concerning the privately run and foreign invested enterprises, which are generally subject to tax at a statutory rate of 25% on income reported in the statutory financial statements after appropriate tax adjustments. For both the years ended June 30, 2024 and 2023, the tax rate for LPOIZ was 15%, in accordance with an incentive

program for technology companies. The net deferred tax liability for LPOIZ is approximately \$415,000 and \$465,000 as of June 30, 2024 and 2023, respectively, primarily related to timing differences related to accelerated depreciation on fixed assets.

Historically, the Company considered unremitted earnings held by its foreign subsidiaries to be permanently reinvested. However, during fiscal year 2020, the Company began declaring intercompany dividends to remit a portion of the historical earnings of its foreign subsidiaries to the U.S. parent company. It is still the Company's intent to reinvest a significant portion of the more recent earnings generated by its foreign subsidiaries, however the Company also plans to repatriate a portion of the historical earnings of its subsidiaries. Based on its previous intent, the Company had not historically provided for future Chinese withholding taxes on the related earnings. However, during fiscal year 2020 the Company began to accrue for these taxes on the portion of historical earnings that it intends to repatriate.

During the years ended June 30, 2024 and 2023, the Company declared and paid intercompany dividends of \$1.4 million and \$1.9 million, respectively, from LPOIZ, payable to the Company as its parent company. Accordingly, the Company paid Chinese withholding taxes of \$152,000 and \$210,000 associated with these dividends during fiscal years 2024 and 2023, respectively. Income tax expense associated with these dividends was \$152,000 and \$210,000 for fiscal years 2024 and 2023, respectively. Accrued and unpaid withholding taxes were approximately \$40,000 as of both June 30, 2024 and 2023. Other than these withholding taxes, these intercompany dividends have no impact on the Consolidated Financial Statements.

Law of Corporate Income Tax of Latvia

The Company's Latvian subsidiary, ISP Latvia, is governed by the Law of Corporate Income Tax of Latvia. Until December 31, 2017, ISP Latvia was subject to a statutory income tax rate of 15%. Effective January 1, 2018, the Republic of Latvia enacted tax reform with the following key provisions: (i) corporations are no longer subject to income tax, but are instead subject to a distribution tax on distributed profits (or deemed distributions, as defined), and (ii) the tax rate was changed to 20%; however, distribution amounts are first divided by 0.8 to arrive at the taxable amount of profit, resulting in an effective tax rate of 25%. As a transitional measure, distributions made from earnings prior to January 1, 2018, distributed prior to December 31, 2019, are not subject to tax if declared prior to December 31, 2019. ISP Latvia has declared an intercompany dividend to be paid to ISP, its U.S. parent company, for the full amount of earnings accumulated prior to January 1, 2018. Distributions of this dividend will be from earnings prior to January 1, 2018 and, therefore, will not be subject to tax. The Company currently does not intend to distribute any current earnings generated after January 1, 2018. If, in the future, the Company changes such intention, distribution taxes, if any, will be accrued as profits are generated.

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LIGHTPATH TECHNOLOGIES, INC. Notes to Consolidated Financial Statements (continued)

The tax effects of temporary differences that give rise to significant portions of deferred tax assets and deferred tax liabilities are as follows at June 30:

	Year Ended June 30,	
	2024	2023
Deferred tax assets:		
Net operating loss carryforwards	\$ 9,544,000	\$ 9,243,000
Stock-based compensation	275,000	340,000
R&D and other credits	1,935,000	1,787,000
Capitalized R&D expenses	887,000	763,000
Inventories	200,698	200,000
Accrued expenses and other	150,000	15,000
Gross deferred tax assets	12,991,698	12,348,000
Valuation allowance for deferred tax assets	(12,083,000)	(11,057,000)
Total deferred tax assets	908,698	1,291,000
Deferred tax liabilities:		
Depreciation and other	(602,895)	(740,000)
Intangible assets	(509,000)	(876,000)
Total deferred tax liabilities	(1,111,895)	(1,616,000)
Net deferred tax assets (liabilities)	\$ (203,197)	\$ (325,000)

In assessing the potential future recognition of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax planning strategies in making this assessment. The Company's largest deferred tax asset is related to its U.S. federal NOL carryforwards. In order to fully realize this deferred tax asset, the Company would need to generate future taxable income of approximately \$39 million prior to the expiration of the carry-forwards, of which \$21 million expire from 2025 through 2034 and \$18 million do not expire. Based on the level of historical taxable income (loss), management has provided for a valuation adjustment against the deferred tax assets of approximately \$12.1 million at June 30, 2024, an increase of approximately \$1.0 million as compared to June 30, 2023. The increase in the valuation allowance for deferred tax assets as compared to the prior year is primarily the result of the various movements in the current year deferred items. The U.S. net deferred tax asset of \$123,000 results from federal and state tax credits with indefinite carryover periods. State income tax expense disclosed on the effective tax rate reconciliation above includes state deferred taxes that are offset by a full valuation allowance.

At June 30, 2024, in addition to net operating loss carry forwards, the Company also has research and development and other credit carry forwards of approximately \$1.5 million, which will expire from 2025 through 2044. A portion of the NOL carry forwards may be subject to certain limitations of the Internal Revenue Code Sections 382 and 383, which would restrict the annual utilization in future periods due principally to changes in ownership in prior periods.

10. Compensatory Equity Incentive Plan and Other Equity Incentives

Share-based payment arrangements — The Company's directors, officers, and key employees were granted stock-based compensation through the Omnibus Plan, through October 2018 and after that date, the SICP. Such stock-based compensation may include, among other things, incentive stock

options, non-qualified stock options, restricted stock awards (“RSAs”) and restricted stock units (“RSUs”). The SICP is administered by the Compensation Committee of the Board of Directors. At the Company’s 2018 Annual Stockholders Meeting, our stockholders approved the SICP under which an aggregate of 1,650,870 shares of our Class A common stock were authorized for issuance pursuant to awards granted thereunder. At the Company’s 2022 Annual Stockholders Meeting, our stockholders authorized an additional 2,100,000 shares of our Class A common stock for issuance pursuant to awards granted thereunder. As of June 30, 2024, 863,305 shares of Class A common stock were authorized and available for issuance pursuant to awards granted under the SICP. The Company’s executive officers are eligible to earn incentive compensation consisting of equity-based awards, as well as cash bonuses, based on the achievement of certain individual and/or Company performance goals set by the Compensation Committee.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

The LightPath Technologies, Inc. Employee Stock Purchase Plan (“2014 ESPP”) was adopted by the Company’s Board of Directors on October 30, 2014 and approved by the Company’s stockholders on January 29, 2015. The 2014 ESPP permits employees to purchase Class A common stock through payroll deductions, which may not exceed 15% of an employee’s compensation, at a price not less than 85% of the market value of the Class A common stock on specified dates (June 30 and December 31). In no event can any participant purchase more than \$25,000 worth of shares of Class A common stock in any calendar year and an employee cannot purchase more than 8,000 shares on any purchase date within an offering period of 12 months and 4,000 shares on any purchase date within an offering period of six months. This discount of approximately \$4,000 for each of the fiscal years ended June 30, 2024 and 2023, respectively, is included in the selling, general and administrative expense in the accompanying Consolidated Statements Comprehensive Income (Loss), which represents the value of the 10% discount given to the employees purchasing stock under the 2014 ESPP.

These plans are summarized below:

Equity Compensation Arrangement	Award Shares Authorized	Outstanding at June 30, 2024	Available for Issuance at June 30, 2024
SICP (or Omnibus Plan)	7,215,625	1,965,361	863,305
2014 ESPP	400,000	-	213,473
	<u>7,615,625</u>	<u>1,965,361</u>	<u>1,076,778</u>

Grant Date Fair Values and Underlying Assumptions; Contractual Terms —The Company estimates the fair value of each equity option as of the date of grant. The Company uses the Black-Scholes-Merton pricing model. The 2014 ESPP fair value is the amount of the discount the employee obtains at the date of the purchase transaction.

Most stock options granted vest ratably over two to four years and are generally exercisable for ten years. The assumed forfeiture rates used in calculating the fair value of RSU grants was 0%, and the assumed forfeiture rates used in calculating the fair value of options for performance and service conditions were 20% for each of the years ended June 30, 2024 and 2023. The volatility rate and expected term are based on seven-year historical trends in Class A common stock closing prices and actual forfeitures. The interest rate used is the U.S. Treasury interest rate for constant maturities.

No stock options were granted during the year ended June 30, 2023. For stock options granted in the year ended June 30, 2024, the Company estimated the fair value of each stock award as of the date of grant using the following assumptions:

	Year Ended June 30, 2024
Weighted-average expected volatility	74.0%
Dividend yields	0%
Weighted-average risk-free interest rate	3.98%
Weighted-average expected term, in years	7.49

Restricted Stock Awards

RSAs are granted primarily to our executive officers, employees and consultants, and typically vest over a one to three year period from the date of grant, although some may vest immediately upon grant. The stock underlying RSAs is issued upon vesting.

Restricted Stock Units

RSUs are granted primarily to our directors, although RSU awards may also be made to executive officers, employees and consultants. RSUs typically vest over a one to four year period from the date of grant, although some may vest immediately upon grant.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Information Regarding Current Share-Based Payment Awards — A summary of the activity for share-based payment awards in the years ended June 30, 2024 and 2023 is presented below:

Stock Options	Restricted Stock Units (RSUs)	Restricted Stock Awards (RSAs)
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	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contract	Shares	Weighted-Average Remaining Contract	Shares	Weighted-Average Remaining Contract
June 30, 2022	534,462	\$ 2.03	7.0	2,079,669	0.9	-	-
Granted	-	\$ -	-	611,386	-	246,942	-
Exercised	-	\$ -	-	(1,068,291)	-	(145,209)	-
Cancelled/Forfeited	-	\$ -	-	(26,542)	-	-	-
June 30, 2023	534,462	\$ 2.03	6.1	1,596,222	1.1	101,733	0.7
Granted	28,736	\$ 1.74	-	543,305	-	270,070	-
Exercised	(3,000)	\$ 1.38	-	(843,246)	-	(191,007)	-
Cancelled/Forfeited	(6,509)	\$ 1.45	-	(46,149)	-	(19,256)	-
June 30, 2024	<u>553,689</u>	\$ 2.02	5.4	<u>1,250,132</u>	0.8	<u>161,540</u>	1.5
Awards exercisable/ vested as of							
June 30, 2024	506,203	\$ 2.00	5.1	587,351	-	-	-
Awards unexercisable/ unvested as of							
June 30, 2024	<u>47,486</u>	\$ 2.25	8.6	<u>662,781</u>	0.8	<u>161,540</u>	1.5
	<u>553,689</u>			<u>1,250,132</u>		<u>161,540</u>	

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

The intrinsic and fair values for share-based payment awards exercised and vested in the years ended June 30, 2024 and 2023 are presented below:

	<u>Year Ended June 30,</u>	
	<u>2024</u>	<u>2023</u>
Intrinsic Value - Exercised		
Stock Options	\$ 720	\$ -
RSUs	1,051,976	1,648,874
RSAs	243,231	190,720
Fair Value - Vested		
Stock Options	\$ 124,744	\$ 6,500
RSUs	660,449	793,880
RSAs	243,223	189,473

The intrinsic values of share-based payment awards outstanding and exercisable as of June 30, 2024 and 2023 are presented below:

	<u>As of June 30,</u>	
	<u>2024</u>	<u>2023</u>
Stock Options	\$ -	\$ 2,430
RSUs	740,062	1,267,403

None of the outstanding RSAs were exercisable as of June 30, 2024 and 2023.

As of June 30, 2024, there was approximately \$863,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements, including share options and RSUs, granted under the Omnibus Plan, through October 2018 and after that date, the SICP. The expected compensation cost to be recognized is as follows:

Fiscal Year Ending:	Stock Options	RSAs	RSUs	Total
June 30, 2025	\$ 36,437	\$ 99,745	\$ 405,007	\$ 541,189
June 30, 2026	10,201	46,409	163,413	220,023
June 30, 2027	6,903	8,155	87,084	102,142
	<u>\$ 53,541</u>	<u>\$ 154,309</u>	<u>\$ 655,504</u>	<u>\$ 863,354</u>

The table above does not include shares under the Company's 2014 ESPP, which has purchase settlement dates in the second and fourth fiscal quarters.

The Company issues new shares of Class A common stock upon the exercise of stock options and upon vesting of RSUs and RSAs, unless the recipient has elected to defer receipt of shares under the applicable IRS rules. The following table is a summary of the number and weighted-average grant date fair values, estimated using the Black-Scholes-Merton pricing model, regarding the Company's unexercisable/unvested awards as of June 30, 2024 and 2023 and changes during the two years then ended:

Unexercisable/Unvested Awards	Stock Options Shares	RSU Shares	RSA Shares	Total Shares	Weighted-Average Grant Date Fair Values
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					(per share)
June 30, 2022	319,321	744,691	-	1,064,012	\$ 1.71
Granted	-	611,386	246,942	858,328	\$ 1.24
Vested	(181,061)	(672,130)	(145,209)	(998,400)	\$ 1.52
Cancelled/Forfeited	-	(26,542)	-	(26,542)	\$ -
June 30, 2023	138,260	657,405	101,733	897,398	\$ 1.40
Granted	28,736	543,305	270,070	842,111	\$ 1.40
Vested	(100,760)	(509,579)	(196,070)	(806,409)	\$ 1.57
Cancelled/Forfeited	(18,750)	(28,350)	(14,193)	(61,293)	\$ 1.43
June 30, 2024	47,486	662,781	161,540	871,807	\$ 1.42

Acceleration of Vesting — The Company does not generally accelerate the vesting of any stock options, RSUs or RSAs, however in the case of retirements, the Board of Directors may accelerate vesting.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Financial Statement Effects and Presentation — The following table shows total stock-based compensation expense for the years ended June 30, 2024 and 2023, which is included in selling, general and administrative expenses in the accompanying Consolidated Statements of Comprehensive Income (Loss):

	Year Ended June 30,	
	2024	2023
Stock options	\$ 94,124	\$ 200,854
RSAs	260,322	168,673
RSUs	664,577	941,430
Total	<u>\$ 1,019,023</u>	<u>\$ 1,310,957</u>

11. Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares of Class A common stock outstanding during each period presented. Diluted earnings (loss) per share is computed similarly to basic earnings (loss) per share except that it reflects the potential dilution that could occur if dilutive securities or other obligations to issue shares of Class A common stock were exercised or converted into shares of Class A common stock. The computations for basic and diluted earnings (loss) per share are described in the following table:

	Year Ended June 30,	
	2024	2023
Net loss	<u>\$ (8,007,346)</u>	<u>\$ (4,046,871)</u>
Weighted-average common shares outstanding:		
Basic number of shares	37,944,935	31,637,445
Effect of dilutive securities:		
Options to purchase common stock	-	-
RSUs and RSAs	-	-
Diluted number of shares	<u>37,944,935</u>	<u>31,637,445</u>
Loss per common share:		
Basic	<u>\$ (0.21)</u>	<u>\$ (0.13)</u>
Diluted	<u>\$ (0.21)</u>	<u>\$ (0.13)</u>

The following weighted-average potential dilutive shares were not included in the computation of diluted earnings per share, as their effects would be anti-dilutive:

	Year Ended June 30,	
	2024	2023
Options to purchase common stock	540,604	534,462
RSUs and RSAs	1,249,336	2,013,276
	<u>1,789,940</u>	<u>2,547,738</u>

12. Defined Contribution Plan

The Company provides retirement benefits to its U.S.-based employees through a defined contribution retirement plan. Until February 24, 2023, these benefits were offered under the Insuperity 401(k) plan (the "Insuperity Plan"). The Insuperity Plan was a defined 401(k) contribution plan that all U.S. employees, over the age of 21, are eligible to participate in after three months of employment. Under the Insuperity Plan, the Company matched 100% of the

first 2% of employee contributions. Effective February 24, 2023, all plan assets were transferred to the LightPath Technologies Inc. 401(k) plan (the “LightPath Plan”). The LightPath Plan is a defined 401(k) contribution plan, administered by a third party, that all U.S. employees, over the age of 21, are eligible to participate in after three months of employment. Under the LightPath Plan, the Company matches 100% of the first 2% of employee contributions. As of June 30, 2024, there were 50 employees enrolled in this plan. The Company made matching contributions of approximately \$108,000 and \$121,000 during the years ended June 30, 2024 and 2023, respectively.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

13. Leases

The Company has operating leases for its manufacturing and office space. Through February 2023, the Company had two lease agreements for its corporate headquarters and manufacturing facilities in Orlando, Florida. The first lease (the “Orlando Lease”) was amended effective April 30, 2021 to expand the space from approximately 26,000 square feet to approximately 58,500 square feet. The lease term was extended from April 30, 2022, to that certain date that is one hundred twenty-seven (127) months after the date the landlord completes certain work to be done at the leased premises. The landlord’s work was completed in August 2023, and accordingly the lease expires on March 31, 2034. Minimum rental rates for the extension term were established based on annual increases of approximately three percent (3%). Additionally, there is one five-year extension option exercisable by the Company. The minimum rental rates for such additional extension option will be determined at the time an option is exercised and will be based on a “fair market rental rate,” as determined in accordance with the Orlando Lease, as amended. The second lease was entered into in April 2018 for 12,378 square feet in Orlando, Florida (the “Orlando Lease II”), which provided additional manufacturing and office space near the Company’s corporate headquarters. The commencement date of the Orlando Lease II was December 1, 2018, and it had a four-year original term with one renewal option for an additional five-year term. In October 2021, the Company assigned such lease to a third-party and agreed that the premises would be vacated, subject to the assigned lease, on November 30, 2022. In December 2022, the Company entered into an agreement with the assignee of such lease that extended its right to occupy the subject premises until February 28, 2023, in consideration of payments of rent through February 28, 2023, and other amounts to the assignee. In February 2023, the space was vacated and the Company has no further obligations related to this lease.

As of June 30, 2024, the Company, through its wholly-owned subsidiary, LPOIZ, has a lease agreement for a manufacturing and office facility in Zhenjiang, China for an aggregate of 55,000 square feet (the “Zhenjiang Lease”), which expires December 31, 2024. Effective June 1, 2024, LPOIZ reduced its facility to 39,500 square feet. It is management’s intention to renew the lease on the reduced space for at least a one-year term.

At June 30, 2024, the Company, through ISP’s wholly-owned subsidiary ISP Latvia, had two lease agreements for a manufacturing and office facility in Riga, Latvia for an aggregate of 29,000 square feet, which leases expire December 31, 2030.

The Company’s facility leases are classified as operating leases, and the Company also has finance leases related to certain equipment located in Orlando, Florida and Riga, Latvia. The operating leases for facilities are non-cancelable, expiring in 2024 to 2034. The Company includes options to renew (or terminate) in the lease term, and as part of the ROU assets and lease liabilities, when it is reasonably certain that the Company will exercise that option. At June 30, 2024, the Company also has obligations under twelve finance lease agreements, entered into during fiscal years 2019 thru 2024, with terms ranging from three to five years. The leases are for computer and manufacturing equipment. The finance leases for equipment on Riga, Latvia include financial covenants specific to ISP Latvia.

The Company’s operating lease ROU assets and the related lease liabilities are initially measured at the present value of future lease payments over the lease term. Two of our operating leases include renewal options, which were not included in the measurement of the operating lease ROU assets and related lease liabilities. As most of the Company’s leases do not provide an implicit rate, the Company used its collateralized incremental borrowing rate based on the information available at the commencement date in determining the present value of future payments. Currently, none of the Company’s leases include variable lease payments that are dependent on an index or rate. The Company is responsible for payment of certain real estate taxes, insurance and other expenses on certain of its leases. These amounts are generally considered to be variable and are not included in the measurement of the ROU asset and lease liability. The Company generally accounts for non-lease components, such as maintenance, separately from lease components. The Company’s lease agreements do not contain any material residual value guarantees or material restricted covenants. Leases with a term of 12 months or less are not recorded on the Consolidated Balance Sheet; the Company recognizes lease expense for these leases on a straight-line basis over the lease term.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

The Company received tenant improvement allowances for each of the two leases with respect to its Orlando Facility. These allowances were used to construct improvements and are included in leasehold improvements and operating lease liabilities and is being amortized over the corresponding lease term. In August 2023, we completed the construction of additional tenant improvements within the premises subject to our continuing lease for our Orlando Facility, of which the landlord provided \$2.4 million in tenant improvement allowances. We funded the balance of the tenant improvement costs of approximately \$3.7 million.

The components of lease expense were as follows:

	Year Ended June 30,	
	2024	2023
Operating lease cost	\$ 947,154	\$ 875,454
Finance lease cost:		
Depreciation of lease assets	95,546	71,326

Interest on lease liabilities	39,972	7,590
Total finance lease cost	135,518	78,916
Total lease cost	<u>\$ 1,082,672</u>	<u>\$ 954,370</u>

Supplemental balance sheet information related to leases was as follows:

Classification	June 30, 2024	June 30, 2023
Operating lease assets	\$ 6,741,549	\$ 9,571,604
Property and equipment, net ⁽¹⁾	1,063,768	542,105
	<u>\$ 7,805,317</u>	<u>\$ 10,113,709</u>
Operating lease liabilities, current	\$ 1,059,998	\$ 969,890
Finance lease liabilities, current	177,148	103,646
Operating lease liabilities, less current portion	8,058,502	8,393,248
Finance lease liabilities, less current portion	528,753	341,201
	<u>\$ 9,824,401</u>	<u>\$ 9,807,985</u>

- (1) Finance lease assets are recorded net of accumulated depreciation of approximately \$109,000 and \$72,000 as of June 30, 2024 and 2023, respectively.

Lease term and discount rate information related to leases was as follows:

Lease Term and Discount Rate	June 30, 2024
Weighted Average Remaining Lease Term (in years)	
Operating leases	9.4
Finance leases	4.0
Weighted Average Discount Rate	
Operating leases	2.9%
Finance leases	8.1%

Supplemental cash flow information:

	Year Ended June 30,	
	2024	2023
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash used for operating leases	\$ 932,122	\$ 1,020,992
Operating cash used for finance leases	\$ 39,972	\$ 7,590
Financing cash used for finance leases	\$ 131,901	\$ 73,003

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Future maturities of lease liabilities were as follows as of June 30, 2024:

Fiscal year ending:	Finance Leases	Operating Leases
June 30, 2025	\$ 228,515	\$ 1,158,942
June 30, 2026	206,200	1,130,756
June 30, 2027	179,552	1,137,989
June 30, 2028	161,011	1,156,405
June 30, 2029	57,642	1,186,646
Thereafter	-	5,569,120
Total future minimum payments	832,920	11,339,858
Less imputed interest	(127,019)	(2,221,358)
Present value of lease liabilities	<u>\$ 705,901</u>	<u>\$ 9,118,500</u>

14. Loans Payable

As of June 30, 2024, loans payable consisted of two equipment loans (as defined below). As of June 30, 2023, loans payable primarily consisted of the BankUnited Term Loan (as defined below) payable to BankUnited N.A. ("BankUnited"). This loan was paid in full in February 2024 and is no longer outstanding as of June 30, 2024.

Equipment Loans

In December 2020, ISP Latvia entered into an equipment loan with a third party (the "2020 Equipment Loan"), which is also a customer. The 2020 Equipment Loan is subordinate to the BankUnited Loans, and collateralized by certain equipment. The initial advance under the 2020 Equipment Loan was

225,000 EUR (or USD \$275,000), payable in equal installments over 60 months, the proceeds of which were used to make a prepayment to a vendor for equipment to be delivered at a future date. The 2020 Equipment Loan bears interest at a fixed rate of 3.3%. An additional 225,000 EUR (or USD \$267,000) was drawn in September 2021, which proceeds were paid to the vendor for the equipment, payable in equal installments over 52 months.

In May 2023, ISP Latvia entered into an equipment loan with a third party financial institution (the “2023 Equipment Loan”). The 2023 Equipment Loan is collateralized by certain equipment. The initial advance under the 2023 Equipment Loan was 128,815 EUR (or USD \$141,245), the proceeds of which were used to make a prepayment to a vendor for equipment to be delivered at a future date. The final advance for the final payment to the equipment vendor was 132,674 EUR (or USD \$141,815). The 2023 Equipment Loan is payable over 48 months, with monthly installments beginning January 1, 2024. The 2023 Equipment Loan bears interest at the six-month EURIBOR rate, plus 2.84% (6.39% as of June 30, 2024).

BankUnited Term Loan

On February 26, 2019, the Company entered into a Loan Agreement (the “Loan Agreement”) with BankUnited for (i) a revolving line of credit up to maximum amount of \$2,000,000 (the “Revolving Line”), (ii) a term loan in the amount of up to \$5,813,500 (“Term Loan”), and (iii) a non-revolving guidance line of credit up to a maximum amount of \$10,000,000 (the “Guidance Line” and, together with the Revolving Line and Term Loan, the “BankUnited Loans”), as evidenced by promissory notes the Company executed in favor of BankUnited (the “BankUnited Notes”). Since then, we entered into several amendments to the Loan Agreement and pursuant to those amendments and the associated waivers of compliance with certain financial covenants, we have maintained our compliance with all financial and non-financial covenants under the Loan Agreement. The Guidance Line was terminated on May 6, 2019. The Revolving Line expired on February 26, 2022 and was not renewed.

On May 9, 2023, the Company entered into the Fifth Amendment to the Loan Agreement dated February 26, 2019 (the “Fifth Amendment”). In accordance with the Fifth Amendment, the parties agreed to the following terms, among others: (i) BankUnited agreed to release its security interest in the collateral securing the BankUnited Loans other than a cash collateral account maintained at BankUnited in the amount of approximately \$2,457,000, with a portion of such cash collateral to be released on a quarterly basis equal to 110% of the principal reductions effected during that quarter, and (ii) certain other requirements and restrictions of the Loan Agreement were removed, including, among others, financial covenants, restrictions on acquisitions, and limitations on other financing sources. The cash collateral is reflected as Restricted Cash in the accompanying balance sheet as of June 30, 2023. The Term Loan was paid in full in February 2024, the cash collateral was released, and the Company has no further obligations to BankUnited as of June 30, 2024.

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LIGHTPATH TECHNOLOGIES, INC. **Notes to Consolidated Financial Statements (continued)**

Financing costs related to the BankUnited Loans were recorded as a discount on debt and are being amortized over the term. Amortization of approximately \$59,000 for the year ended June 30, 2023 is included in interest expense. There was no amortization for the year ended June 30, 2024, as all costs were fully amortized in prior periods.

Future maturities of loans payable are as follows:

	Equipment Loans
Fiscal year ending:	
June 30, 2025	\$ 210,260
June 30, 2026	149,100
June 30, 2027	105,414
June 30, 2028	70,276
Total payments	\$ 535,050
Less current portion	(209,170)
Non-current portion	\$ 325,880

15. Contingencies

Legal

The Company from time to time is involved in various legal actions arising in the normal course of business. Management, after reviewing with legal counsel all of these actions and proceedings, believes that the aggregate losses, if any, will not have a material adverse effect on the Company’s financial position or results of operations.

In April 2021, the Company terminated several employees of its China subsidiaries, LPOIZ and LPOI, including the General Manager, the Sales Manager, and the Engineering Manager, after determining that they had engaged in malfeasance and conduct adverse to our interests, including efforts to misappropriate certain of our proprietary technology, diverting sales to entities owned or controlled by these former employees and other suspected acts of fraud, theft and embezzlement. In connection with such terminations, the Company’s China subsidiaries engaged in certain legal proceedings with the terminated employees.

The Company incurred various expenses associated with its investigation into these matters prior and subsequent to the termination of the employees and the associated legal proceedings. These expenses, which included legal, consulting and other transitional management fees, totaled \$718,000 and \$400,000 during the years ended June 30, 2021 and 2022, respectively. During the years ended June 30, 2024 and 2023, expenses incurred related to the legal proceedings were immaterial. In December 2023, the Company recovered approximately \$190,000 in funds that had been recovered by the Chinese authorities, which is included in other income, net in the accompanying consolidated statements of comprehensive income (loss) for the year ended June 30, 2024. We do not expect to incur additional legal fees or consulting expenses in future periods as we have exhausted nearly all of our legal options and remedies.

Knowing that employee transitions in international subsidiaries can lead to lengthy legal proceedings that can interrupt the subsidiary's ability to operate, the Company chose to enter into severance agreements with certain of the employees at the time of termination. Pursuant to the severance agreements, LPOIZ and LPOI agreed to pay such employees severance of approximately \$485,000 in the aggregate, to be paid over a six-month period. After the execution of the severance agreements, we discovered additional wrongdoing by the terminated employees. As a result, LPOIZ and LPOI did not immediately pay the severance payments and disputed the employees' rights to such payments. However, based on the likelihood that the courts in China would determine that the Company's subsidiaries would ultimately be obligated to pay these amounts, we accrued for these payments as of June 30, 2021. Such expenses were recorded as "Selling, general and administrative" expenses in the Consolidated Statement of Comprehensive Income (Loss) for the year ended June 30, 2021. As of June 30, 2022, approximately \$430,000 remained accrued. The Chinese Labor Court subsequently ruled in favor of the former employees, as expected, and these severance payments were paid out during the first half of fiscal year 2023.

The Company has transitioned the management of LPOI and LPOIZ to a new management team without any significant detrimental effects on the ability of those subsidiaries to operate. Management has not experienced any material adverse impact to the business operations of LPOI or LPOIZ as a result of the transition.

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

Potential Impact of Economic Conditions in China

Due to our operations in China, our business, results of operations, financial condition and prospects may be influenced to a significant degree by economic, political, legal and social conditions in China. China's economy differs from the economies of other countries in many respects, including with respect to the level of development, growth rate, amount of government involvement, control of foreign exchange and allocation of resources. While China's economy has experienced significant growth over the past several decades, its growth rate has declined in recent years and may continue to decline. Deteriorating economic conditions in China generally have led to lower demand for our products in China and thus lower revenues and net income for our subsidiaries in China and the Company overall. A continuation of China's current economic conditions or a further slowdown in the economic growth, an economic downturn, a recession, or other adverse economic conditions in China is likely to have a material adverse effect on our business and results of operations in future quarters.

Impact of Ongoing Wars

In February 2022, Russian military forces invaded Ukraine. This war has led to sanctions on Russia, which have had some impacts, though temporary, on our supply chain of raw materials. Separately, Israel declared war on Hamas in October 2023. Initially, this resulted in a temporary increase in our sales, as Israel worked to replace electro-optical systems that in some cases use our materials. However, it is possible that this war will also have a negative impact on our business at some point as a result of the economic impact in Israel. In addition to the significant defense related market in Israel, we also serve many commercial related applications and work with commercial companies in Israel, and the business of those customers may be negatively impacted by the war over time. Given the dynamic nature of this situation, we cannot reasonably estimate the impact of either the Russian-Ukraine conflict or the Israel-Hamas war on our financial condition, results of operations or cash flows into the foreseeable future.

16. Foreign Operations

Assets and liabilities denominated in non-U.S. currencies are translated at rates of exchange prevailing on the balance sheet date, and revenues and expenses are translated at average rates of exchange for the period. Gains or losses on the translation of the financial statements of a non-U.S. operation, where the functional currency is other than the U.S. dollar, are reflected as a separate component of equity, which was a cumulative gain of approximately \$510,000 and \$607,000 as of June 30, 2024 and 2023, respectively. During the years ended June 30, 2024 and 2023, we also recognized net foreign currency transaction gains of approximately \$73,000 and losses of approximately \$37,000, respectively, included in the Consolidated Statements of Comprehensive Income (Loss) in the line item entitled "Other income, net."

Revenues from and long-lived assets located in foreign countries are as follows:

	<u>Year Ended June 30,</u>	
	<u>2024</u>	<u>2023</u>
Revenues:		
United States	\$ 19,289,711	\$ 16,327,295
Latvia	128,039	2,667,113
China	2,513,781	2,629,684
Other European countries	7,859,096	8,664,338
Other Asian countries	1,190,410	1,463,343
Rest of world	745,155	1,172,176
	<u>\$ 31,726,192</u>	<u>\$ 32,933,949</u>
	<u>June 30, 2024</u>	<u>June 30, 2023</u>
Long-lived assets:		
United States	\$ 24,989,477	\$ 23,336,063
Latvia	4,961,741	5,282,596
China	2,615,410	3,157,434
	<u>\$ 32,566,628</u>	<u>\$ 31,776,093</u>

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LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

17. Supplier and Customer Concentrations

The Company utilizes a number of glass compositions in manufacturing its molded glass aspheres and lens array products. These glasses or equivalents are available from a large number of suppliers, including CDGM Glass Company Ltd., Ohara Corporation, and Sumita Optical Glass, Inc. Base optical materials, used in certain of the Company's products, are manufactured and supplied by a number of optical and glass manufacturers. The Company also utilizes major infrared material suppliers located around the globe for a broad spectrum of infrared crystal and glass. Historically, the Company has sourced Germanium from suppliers located in Russia and China. At the start of the war in Ukraine, all purchases of Germanium from vendors in Russia ceased and the Company has been purchasing Germanium only from vendors in China. On July 4, 2023, China announced its intentions to impose some export restrictions on Germanium, requiring all international customers to provide an end user statement for approval before receiving an export license. Since that announcement, supply of Germanium has been disrupted, though not completely stopped. To date, the Company has mostly been able to purchase the Germanium that has been needed, however the availability, lead time and ability to receive export licenses varies between vendors. The Company has strategically reduced the level of Germanium-based orders that it accepts, and continues to work with its customers to design in alternative materials such as its BlackDiamond glasses. The Company believes that a satisfactory supply of such production materials will continue to be available, however, with longer lead times and higher prices for Germanium in particular, although there can be no assurance in this regard.

In fiscal year 2024, the Company had sales to three customers that comprised an aggregate of approximately 25% of its annual revenue, and 16% of its June 30, 2024 accounts receivable. Sales to these customers as a percentage of our fiscal year 2024 revenue include one customer at 12%, another customer at 7%, and the third customer at 6%. One of these customers comprised 11% of accounts receivable, a second customer comprised 3% of accounts receivable and a third customer comprised 1% of the accounts receivable balance as of June 30, 2024. In fiscal year 2023, the Company had sales to three customers that comprised an aggregate of approximately 24% of its annual revenue, and 25% of its June 30, 2023 accounts receivable. Sales to these customers as a percentage of our fiscal year 2023 revenue include one customer at 11%, another customer at 7%, and the third customer at 6%. One of these customers comprised 12% of accounts receivable, a second customer comprised 9% of accounts receivable and a third customer comprised 5% of the accounts receivable balance as of June 30, 2023. The loss of any of these customers, or a significant reduction in sales to any such customer, would adversely affect the Company's revenues.

In fiscal year 2024, 39% of the Company's net revenue was derived from sales outside of the U.S., with 94% of foreign sales derived from customers in Europe and Asia. In fiscal year 2023, 50% of the Company's net revenue was derived from sales outside of the U.S., with 93% of foreign sales derived from customers in Europe and Asia.

18. Liquidity

We generally rely on cash from operations and equity and debt offerings, to the extent available, to satisfy our liquidity needs and to maintain our ability to repay our debt.

On February 16, 2022, we filed a shelf registration statement to facilitate the issuance of our Class A common stock, warrants exercisable for shares of our Class A common stock, and/or units up to an aggregate offering price of \$75.8 million from time to time. In connection with the filing of the shelf registration statement, we also included a prospectus supplement relating to an at-the-market equity program under which we may issue and sell shares of our Class A common stock up to an aggregate offering price of \$25.2 million from time to time, decreasing the aggregate offering price available under the shelf registration statement to \$50.6 million. The shelf registration statement was declared effective by the SEC on March 1, 2022. During the year ended June 30, 2024, we issued 585,483 shares of our Class A common stock pursuant to the at-the-market equity program.

On January 12, 2023, the Company entered into a securities purchase agreement ("Purchase Agreement"), pursuant to which the Company agreed to issue and sell in a public offering under the shelf registration statement an aggregate of 9,090,910 shares of the Company's Class A common stock, par value \$0.01 per share for a purchase price of \$1.10 per share and filed a prospectus supplement with the SEC related thereto. The sale of shares pursuant to the Purchase Agreement closed on January 17, 2023, and resulted in net proceeds of approximately \$9.2 million after payment of placement agent fees, and certain other costs and expenses of the offering.

There are a number of factors that could result in the need to raise additional funds, including a decline in revenue or a lack of anticipated sales growth, increased material costs, increased labor costs, planned production efficiency improvements not being realized, increases in property, casualty, benefit and liability insurance premiums, and increases in other costs. In addition, we may identify opportunities for acquisitions and other strategic transactions to expand and further enhance our business that may require that we raise additional capital should we elect to pursue any of such transactions.

LIGHTPATH TECHNOLOGIES, INC.
Notes to Consolidated Financial Statements (continued)

19. Subsequent Events

Bridge Promissory Note

On August 6, 2024, the Company entered into a bridge promissory note (the "Note") with Lytton-Kambara Foundation (the "Lender") pursuant to which the Lender extended a loan to the Company in the principal amount of \$3,000,000 (the "Loan"). The Loan is subject to an original issue discount of 7%. After deducting the original issue discount, fees paid to the Company's placement agent, and certain expenses, the Company received net proceeds of \$2,700,000.

The Loan bears interest at the rate of 12.5% per annum and has a 1-year term, maturing on August 6, 2025 (the "Maturity Date"), at which time the entire principal amount of the Loan and all accrued but unpaid interest is due and payable in full.

The Company may prepay the principal outstanding under the Note at any time prior to the Maturity Date at 105% of the prepaid principal amount plus any unpaid accrued interest. Upon the consummation of a transaction resulting in a Change of Control (as defined in the Note) the Company is required to repay the holder of the Note in cash an amount equal to 105% of the outstanding principal balance of the Note plus unpaid accrued interest on the original principal.

The Note contains customary representations, warranties and covenants for agreements of this type and provides for customary events of default, including among other things, failure to make payments when due, breaches of representations and warranties, and certain bankruptcy and insolvency events. Upon an event of default, the Note's interest rate shall increase to 18% per annum and the Note holder may, at its option, accelerate the Note whereupon the entire principal amount thereof and all accrued but unpaid interest shall be due and payable in full.

The foregoing descriptions of the Note do not purport to be complete and are qualified in their entirety by reference to the Note, a copy of which is filed as an Exhibit to this Annual Report on Form 10-K and is incorporated herein by reference.

End of Consolidated Financial Statements

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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.

LIGHTPATH TECHNOLOGIES, INC.

Date: September 19, 2024

By: /s/ Shmuel Rubin

Shmuel Rubin
President & Chief Executive Officer

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.

<u>/s/ SHMUEL RUBIN</u> Shmuel Rubin President & Chief Executive Officer (Principal Executive Officer)	September 19, 2024	<u>/s/ ALBERT MIRANDA</u> Albert Miranda Chief Financial Officer (Principal Financial Officer)	September 19, 2024
<u>/s/ M. SCOTT FARIS</u> M. Scott Faris Director (Chairman of the Board)	September 19, 2024	<u>/s/ JOSEPH MENAKER</u> Joseph Menaker Director	September 19, 2024
<u>/s/ S. ERIC CREVISTON</u> S. Eric Creviston Director	September 19, 2024	<u>/s/ DARCI PECK</u> Darcie Peck Director	September 19, 2024
<u>/s/ KIMBERLY CRIDER</u> Kimberly Crider Director	September 19, 2024		

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POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that the undersigned constitutes and appoints Shmuel Rubin and Albert Miranda, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for and in his name, place and stead, in any and all capacities, to sign the Annual Report on Form 10-K for the fiscal year ended June 30, 2024, and any and all amendments thereto and to file the same, with all 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 in and about the premises as fully to all intents and purposes as might or could be done in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or either of them, or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, this Power of Attorney has been signed on this 19th day of September 2024 by the following persons.

/s/ M. Scott Faris

M. Scott Faris
Director (Chair of the Board)

/s/ Shmuel Rubin

Shmuel Rubin
President & CEO

/s/ S. Eric Creviston

S. Eric Creviston
Director

/s/ Darcie Peck

Darcie Peck
Director

/s/ Kimberly Crider

Kimberly Crider
Director

/s/ Joseph Menaker

Joseph Menaker
Director

DESCRIPTION OF THE REGISTRANT'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED

The following is a summary of all material characteristics of the capital stock of LightPath Technologies, Inc., a Delaware corporation ("LightPath," the "Company," "we," "us," or "our") as set forth in our Certificate of Incorporation, as amended (the "Certificate of Incorporation") and our Amended and Restated Bylaws, as further amended (the "Bylaws"), and as registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The summary does not purport to be complete and is qualified in its entirety by reference to our Certificate of Incorporation and our Bylaws, each of which are incorporated by reference as exhibits to the Annual Report on Form 10-K of which this Exhibit 4.1 is a part, and to the provisions of the Delaware General Corporate Law (the "DGCL"). We encourage you to review complete copies of our Certificate of Incorporation and our Bylaws, and the applicable provisions of the Delaware General Corporate Law (the "DGCL") for additional information.

General

Our authorized capital stock consists of 105,000,000 shares, divided into 100,000,000 shares of common stock, par value \$0.01 per share (the "Common Stock"), and 5,000,000 shares of preferred stock, par value \$0.01 per share ("Preferred Stock"). Under our Certificate of Incorporation, our board of directors (our "Board") has the authority to issue such shares of Common Stock and Preferred Stock in one or more classes or series, with such voting powers, designations, preferences and relative, participating, optional or other special rights, if any, and such qualifications, limitations or restrictions thereof, if any, as shall be provided for in a resolution or resolutions adopted by our Board and filed as designations.

Class A Common Stock

Of the 100,000,000 shares of Common Stock authorized in our Certificate of Incorporation, our Board has designated 94,500,000 shares as Class A common stock, par value \$0.01 per share (the "Class A Common Stock"). As of September 16, 2024, 39,552,737 shares of our Class A Common Stock were outstanding. The remaining 5,500,000 shares of authorized Common Stock were designated as Class E-1 Common Stock, Class E-2 Common Stock, or Class E-3 Common Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A Common Stock.

Holders of our Class A Common Stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders, including the election of directors, and are entitled to receive dividends when and as declared by our Board out of funds legally available therefore for distribution to stockholders and to share ratably in the assets legally available for distribution to stockholders in the event of the liquidation or dissolution, whether voluntary or involuntary, of LightPath. We have not paid any dividends and do not anticipate paying any dividends on our Class A Common Stock in the foreseeable future. It is our present policy to retain earnings, if any, for use in the development of our business. Our Class A Common Stockholders do not have cumulative voting rights in the election of directors and have no preemptive, subscription, or conversion rights. Our Class A Common Stock is not subject to redemption by us.

As of September 16, 2024, we have reserved for issuance 1,250,132 shares of our Class A Common Stock underlying outstanding restricted stock units, 146,887 shares of our Class A Common Stock underlying outstanding restricted stock awards, 553,689 shares of our Class A Common Stock for issuance upon the exercise of outstanding stock options, 863,605 shares of our Class A Common Stock for issuance under the 2018 Stock and Incentive Compensation Plan, and 205,241 shares of our Class A Common Stock for issuance under our 2014 Employee Stock Purchase Plan.

The transfer agent and registrar for our Class A Common Stock is Computershare Trust Company, N.A.

Preferred Stock

Of the 5,000,000 shares of Preferred Stock authorized, our Board has previously designated:

- 250 shares of Preferred Stock as Series A Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A Common Stock and may not be reissued;
- 300 shares of Preferred Stock as Series B Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A Common Stock and may not be reissued;
- 500 shares of Preferred Stock as Series C Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A Common Stock and may not be reissued;
- 500,000 shares of Preferred Stock as Series D Preferred Stock, none of which have been issued; however, in 1998, our Board declared a dividend distribution as a right to purchase one share of Series D Preferred Stock for each outstanding share of Class A Common Stock upon occurrence of certain events. The rights expired on February 28, 2021; and
- 500 shares of our Preferred Stock as Series F Preferred Stock, all previously outstanding shares of which have been previously redeemed or converted into shares of our Class A Common Stock and may not be reissued.

Of the 5,000,000 shares of Preferred Stock, 4,498,450 shares of our Preferred Stock remain available for designation by our Board. Accordingly, our Board is empowered, without stockholder approval, to issue Preferred Stock with dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the holders of Common Stock. The issuance of Preferred Stock could have the effect of restricting dividends on the Class A Common Stock, diluting the voting power of the Class A Common Stock, impairing the liquidation rights of the Class A Common Stock, or delaying or preventing a change in control of us, all without further action by our stockholders.

Options

As of September 16, 2024, we had 553,689 shares of our Class A Common Stock underlying stock options outstanding, having a weighted-average exercise price of approximately \$2.02 per share.

Certain Provisions of our Certificate of Incorporation, our Bylaws, and the DGCL

Certain provisions in our Certificate of Incorporation and Bylaws, as well as certain provisions of the DGCL, may be deemed to have an anti-takeover effect and may delay, deter, or prevent a tender offer or takeover attempt that a stockholder might consider to be in its best interests, including attempts that might result in a premium being paid over the market price of the shares held by stockholders. These provisions contained in our Certificate of Incorporation and Bylaws include the items described below.

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- *Classified Board.* Our Certificate of Incorporation provides that our Board is to be divided into three classes, as nearly equal in number as possible, with directors in each class serving three-year terms. Provisions of this type may serve to delay or prevent an acquisition of us or a change in our directors and officers.
- *No Written Consents.* Our Certificate of Incorporation and Bylaws provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by written consent.
- *Special Meetings of Stockholders.* Our Bylaws provide that special meetings of our stockholders may be called only by the Chairman of the Board, President, or a majority of our Board.
- *Stockholder Advance Notice Procedures.* Our Bylaws provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide timely notice in writing and also specify requirements as to the form and content of a stockholder's notice. These provisions may delay or preclude stockholders from bringing matters before a meeting of our stockholders or from making nominations for directors at a meeting of stockholders, which could delay or deter takeover attempts or changes in our management.
- *No Cumulative Voting.* Our Certificate of Incorporation does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class of shares could be able to ensure the election of one or more directors.
- *Exclusive Forum.* Our Bylaws provide that unless we consent in writing to the selection of an alternative forum, the courts in the State of Delaware are, to the fullest extent permitted by applicable law, the sole and exclusive forum for any claims, including claims in the right of the Company, brought by a stockholder (i) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity or (ii) as to which the DGCL confers jurisdiction upon the Court of Chancery of the State of Delaware.
- *Undesignated Preferred Stock.* Because our Board has the power to establish the preferences and rights of the shares of any additional series of Preferred Stock, it may afford holders of any Preferred Stock preferences, powers, and rights, including voting and dividend rights, senior to the rights of holders of our Class A Common Stock, which could adversely affect the holders of our Class A Common Stock and could discourage a takeover of us even if a change of control of LightPath would be beneficial to the interests of our stockholders.

These and other provisions contained in our Certificate of Incorporation and Bylaws are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our Board. However, these provisions could delay or discourage transactions involving an actual or potential change in control of us, including transactions in which stockholders might otherwise receive a premium for their shares over then current prices. Such provisions could also limit the ability of stockholders to remove current management or approve transactions that stockholders may deem to be in their best interests.

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In addition, we are subject to the provisions of Section 203 of the DGCL. Section 203 of the DGCL prohibits a publicly-held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the person became an interested stockholder, unless:

- The board of directors of the corporation approved the business combination or other transaction in which the person became an interested stockholder prior to the date of the business combination or other transaction;
- Upon consummation of the transaction that resulted in the person becoming an interested stockholder, the person owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding, shares owned by persons who are directors and also officers of the corporation and shares issued under which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date the person became an interested stockholder, the board of directors of the corporation approved the business combination and the stockholders of the corporation authorized the business combination at an annual or special meeting of stockholders by the affirmative vote of at least 66-2/3% of the outstanding voting stock of the corporation that is not owned by the interested stockholder.

A "business combination" includes mergers, asset sales, and other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an "interested stockholder" is a person who, together with affiliates and associates, owns, or within the prior three years did own, 15% or more of a corporation's voting stock.

Section 203 of the DGCL could depress our stock price and delay, discourage, or prohibit transactions not approved in advance by our Board, such as takeover attempts that might otherwise involve the payment to our stockholders of a premium over the market price of our Class A Common Stock.

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LIGHTPATH TECHNOLOGIES, INC.

**GUIDE FOR TRADING IN SECURITIES
BY EMPLOYEES, OFFICERS, AND DIRECTORS**

Adopted by the Board of Directors on February 8, 2018

A. PURPOSE

This Guide for Trading in Securities by Employees, Officers, and Directors (this “Guide”) explains the rules and regulations of the Securities and Exchange Commission (“SEC”) applicable to the ownership, control, and trading of LightPath Technologies, Inc. (“LightPath,” “we,” “us,” or “our”) securities by our employees, officers, and directors. This Guide also includes our policies relating to LightPath securities held by officers, directors, and certain employees of LightPath and its subsidiaries.

We consider compliance with this Guide to be a matter of great importance. Anyone acting contrary to the letter or spirit of this Guide will be subject to discipline, including possible dismissal. We will seek restitution for any losses that we may suffer because of such violations.

B. TRANSACTIONS SUBJECT TO THIS GUIDE

This Guide applies to transactions in LightPath’s securities (collectively referred to as “LightPath Securities”), including shares of common stock, options to purchase shares of common stock, or any other type of securities that we may issue such as, but not limited to, preferred stock, convertible debentures, and warrants, as well as derivative securities that are not issued by us, such as exchange-traded put or call options or swaps relating to LightPath Securities.

C. PERSONS SUBJECT TO THIS GUIDE

This Guide applies to all employees, officers, and directors of LightPath or its subsidiaries. In addition, this Guide applies to your family members who reside with you (including your spouse, children, and stepchildren), anyone else who lives in your household, and any family members who do not live in your household but whose transactions in LightPath Securities are directed by you or are subject to your influence or control, such as parents or children who consult with you before they trade in LightPath Securities (collectively referred to as “Family Members”). This Guide does not apply to personal securities transactions of Family Members where the purchase or sale decision is made by a third party not controlled by, influenced by, or related to you or your Family Members. This Guide also applies to any entities and other business associations that you influence or control, including partnerships, corporations, trusts, and estates (collectively referred to as “Controlled Entities”).

Transactions in LightPath Securities by your Family Members and Controlled Entities are treated for purposes of this Guide and applicable securities laws as if they are for your own account.

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D. INDIVIDUAL RESPONSIBILITY

We are committed to complying with all laws governing the conduct of our business and conducting our business in accordance with high ethical standards. It is important that you, your Family Members, and your Controlled Entities avoid even the mere appearance of improper conduct in dealing with material non-public information and in trading in LightPath Securities. We have worked hard over the years to establish a reputation for integrity and ethical conduct. We cannot afford to have our reputation damaged.

You are responsible for making sure that you, your Family Members, and your Controlled Entities comply with this Guide and applicable securities laws. In all cases, the responsibility for determining whether you are in possession of material non-public information rests with you, and any action on the part of LightPath or any employee, officer or director pursuant to this Guide (or otherwise) does not in any way constitute legal advice or insulate you or any other individual from liability under applicable securities laws. You could be subject to severe legal penalties and disciplinary action by LightPath for any conduct prohibited by this Guide or applicable securities laws.

E. SECTION 10(b) AND RULE 10b-5: INSIDER TRADING**1. Statement of Policy.**

No employee, officer, or director of LightPath or its subsidiaries who is aware of material non-public information relating to LightPath, may, directly or indirectly through Family Members, Controlled Entities, or other persons or entities:

- (i) Engage in transactions in LightPath Securities, except as otherwise specified in this Guide under the headings “Permitted Transactions” and “Rule 10b5-1 Plans”;
- (ii) Disclose material non-public information to any other person for the purpose of allowing any other person to trade in LightPath Securities or recommend the purchase or sale of any LightPath Securities (even though the material non-public information that is the basis for the advice is not disclosed to that person);
- (iii) Disclose material non-public information to persons within LightPath whose jobs do not require them to have that information, or outside of LightPath to other persons, including, but not limited to, family, friends, business associates, investors, or consulting firms, unless any such disclosure is made in accordance with LightPath’s policies regarding the protection or authorized external disclosure of information regarding LightPath; or

No employee, officer, or director of LightPath or its subsidiaries (or any other person designated as subject to this Guide) who, in the course of working for us, learns of material non-public information about a company with which we do business, including our customers or suppliers, may trade in that company's securities until the information becomes public or is no longer material.

There are no exceptions to this Guide, except as specifically noted herein. For purposes of insider trading liability, it does not matter that a transaction may be necessary or justifiable for independent reasons (such as the need to raise money for an emergency expenditure) or that delaying the transaction until the material non-public information is disclosed or ceases to be material might cause the employee, officer, or director to incur a financial loss. The securities laws do not recognize any mitigating circumstances. Even the appearance of an improper transaction must be avoided.

Securities transactions that become the subject of scrutiny will be viewed after-the-fact with the benefit of hindsight. Before engaging in any transaction, you should carefully consider how regulators and others might view your transaction in hindsight. If you have any doubts, you should contact the Chief Executive Officer (the "CEO") or the Chief Financial Officer (the "CFO") prior to engaging in a transaction or taking any other action to take advantage of, or to tip, material non-public information.

2. Definition of Material Information.

In general, information is considered "material" if a reasonable investor would consider the information important in a decision to buy, hold, or sell securities. Any information that could be reasonably expected to affect the price of the securities, whether it is positive or negative, should be considered material. There is no bright-line standard for assessing materiality; rather, materiality is based on an assessment of all of the facts and circumstances. Common examples of information that may be regarded as material are:

- projections of future earnings or losses;
- changes to previously announced earnings guidance, or the decision to suspend earnings guidance;
- negotiations concerning a merger, acquisition, tender offer, or other business combination transaction;
- negotiations concerning or information regarding entry into a material agreement;
- pending or proposed acquisitions or dispositions of a material amount of assets;
- pending or proposed acquisitions or dispositions of subsidiaries;
- corporate restructurings;
- pending or proposed joint ventures;

- significant related party transactions;
- changes in dividend policies;
- declaration of a stock split;
- equity or debt offerings;
- bank borrowings or other financing transactions out of the ordinary course;
- the establishment of a repurchase program for LightPath Securities;
- changes in our pricing or cost structure;
- major marketing changes;
- changes in management;
- significant new products or discoveries;
- impending bankruptcy filings;
- material changes in financial liquidity;
- the gain or loss of a substantial customer or vendor;
- restatement of financial statements;
- significant legal exposure due to actual, pending, or threatened litigation;
- changes in our auditors or a notification from our auditors that we may no longer rely on the auditors' audit report; and
- anything else that might have a meaningful effect on our financial statements or on the public's perception of us.

3. Definition of Non-Public.

Information is considered non-public if it has not been fully disclosed. Disclosure of material information to the public generally means that the information has been widely disseminated. Information generally is considered widely disseminated if it has been disclosed in a filing with the SEC (such as LightPath's Forms 10-K, 10-Q, or 8-K), a company press release to the national wire services, or publication of the information in a nationwide publication. More limited dissemination of the information, such as in a company communication to employees (even if it is to all employees generally) or a discrete group of investors does not qualify as public disclosure.

In addition, to ensure adequate disclosure, sufficient time should be permitted to allow the securities markets an opportunity to digest the news. Generally, two full trading days following the date of the filing, release, or publication is regarded as sufficient for dissemination and interpretation of material information by the securities markets. So, for example, we were to make an announcement on a Monday, you should not trade in LightPath Securities until Thursday. Depending on the particular circumstances, we may determine that a longer or shorter period should apply to the release of specific material non-public information.

If you have questions, or are in doubt, as to whether certain information is public, you should contact the CEO or the CFO for guidance prior to engaging in a transaction or taking any other action to take advantage of, or tip, material non-public information.

4. Penalties.

Trading in LightPath Securities while in possession of material non-public information, even if the trade would have been made absent such information, may result in both civil and criminal liability. In addition, you may incur liability for passing material information to others who trade in LightPath Securities even though you do not trade in LightPath Securities.

Penalties for trading on or communicating material non-public information can be severe, both for individuals involved in such unlawful conduct and their employers and supervisors, and may include jail terms, criminal fines, civil penalties, and civil enforcement injunctions. Individuals who trade on inside information or who provide (*i.e.*, “tip”) information to others could face the following consequences:

- (i) a civil action brought by the SEC can result in a penalty of up to three times the profit gained or loss avoided;
- (ii) a criminal prosecution can result in a fine (no matter how small the profit) of up to \$5 million and imprisonment for up to twenty (20) years;
- (iii) a civil action brought by a private plaintiff who contemporaneously traded in LightPath Securities can result in damages of up to the amount of the profit gained or the loss avoided; and
- (iv) the SEC has the authority to obtain a court order that bars a director or officer who has engaged in insider trading from serving, either permanently or for a period of time, as a director or officer of a public company.

Additionally, a person who does not trade on inside information himself or herself, but who, at the time of the trade on inside information, directly or indirectly controlled the person who committed such a violation can also be subject to a civil penalty not to exceed the greater of \$1 million or three times the profit gained or loss avoided as a result of the violation. Also, if the controlling person is an entity, the controlling person can be subject to a criminal penalty of up to \$25 million.

F.ADDITIONAL PROHIBITED TRANSACTIONS

It is improper and inappropriate for any employee, officer, director, or other associate of LightPath to engage in short-term or speculative transactions involving LightPath Securities. It is our policy that such persons should not engage in any of the following activities with respect to LightPath Securities.

1. Trading in Securities on a Short-Term Basis.

Any LightPath Security purchased in the open market must be held for a minimum of six months, and ideally longer. This prohibition does not apply to stock option exercises or other transactions permitted by our Amended and Restated Omnibus Incentive Plan (the “Plan”) or other employee benefit plans. However, the shares acquired upon exercise of stock options are subject to the profit recovery rules under Section 16 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), as described below. Accordingly, the sale of such shares could trigger a Section 16 violation if the sale occurs within six months of a non-exempt purchase of shares.

2. Margin Accounts and Pledges of Securities.

You are prohibited from holding LightPath Securities in a margin account or otherwise pledging LightPath Securities as collateral for a loan. At the time of the purchase of LightPath Securities, you must pay the entire purchase price in cash and not “buy on margin” or rely on a margin loan from your broker. “Buying on margin” refers to the practice of borrowing money that is used to purchase securities. A “margin loan” is typically a loan from the broker to the customer to enable the customer to purchase securities, and the loan is collateralized by the securities and cash.

An exception to this prohibition may be granted where a person wishes to pledge LightPath Securities as collateral for a loan (not including margin debt) and clearly demonstrates the financial capacity to repay the loan without resort to pledged securities. Any person who wishes to pledge LightPath Securities as collateral for a loan must submit a request for approval to the CFO at least two weeks prior to the proposed execution of documents evidencing the proposed pledge. Approval of any transaction is in the sole discretion of the CFO.

3. Short Sales.

Short sales of LightPath Securities are prohibited. A “short sale” is where a person does not actually own the securities sold. Instead, he or she borrows the securities to make delivery to the buyer, and later buys an identical number of shares on the open market to pay back the lender. In the case of officers and directors, short sales of LightPath Securities not only are in violation of this Guide, but also are illegal under the federal securities laws.

4. Buying or Selling Options.

Transactions in put options, call options, or other derivative securities, on an exchange or in any other organized market, are prohibited. A purchase or sale in options on an exchange is, in effect, a bet on the short-term movement of the company’s stock price and, therefore, can create the appearance that a person is trading based on inside information. For example, a “put option” is an option contract that gives the owner the right to sell a specified amount of an underlying security at a specified price within a specified time. A “call option” gives the owner the right to buy shares.

5. Hedging Transactions.

Hedging transactions related to LightPath Securities are prohibited. Certain forms of hedging or monetization transactions, such as zero-cost collars and forward sale contracts, allow you to lock in much of the value of your stock holdings, often in exchange for all or part of the potential for upside appreciation in the stock. These transactions allow you to continue to own the covered securities, but without the full risks and rewards of ownership. This may result in you no longer having the same objectives as our other stockholders.

G. PERMITTED TRANSACTIONS

This Guide does not apply in the case of the following, except as specifically noted:

1. Stock Option Exercises.

This Guide does not apply to the exercise of an employee stock option acquired pursuant to the Plan, or to the exercise of a tax withholding right, if applicable, pursuant to which you have elected to have LightPath withhold shares subject to an option to satisfy tax withholding requirements. This Guide does apply, however, to any permitted sale of stock of a broker-assisted cashless exercise of an option, or any other market sale for the purchase of generating the cash needed to pay the exercise price of an option.

2. Restricted Stock Awards.

This Guide does not apply to the vesting of restricted stock, or the exercise of a tax withholding right, if applicable, pursuant to which you have elected to have LightPath withhold shares of common stock to satisfy tax withholding requirements upon the vesting of any restricted stock. This Guide does apply, however, to any market sale of restricted stock.

3. Employee Stock Purchase Plan.

This Guide does not apply to purchases of LightPath Securities in the employee stock purchase plan resulting from your periodic or lump sum contributions of money to the plan pursuant to the election you made at the time of your enrollment in the plan. This Guide does apply, however, to your initial election to participate in the plan, changes to your election to participate in the plan for any enrollment period, and to your sales of LightPath Securities purchased pursuant to the plan.

4. Bona Fide Gifts.

This Guide does not apply to bona fide gifts, unless you, when making the gift, have reason to believe that the recipient intends to sell the LightPath Securities while you are aware of material non-public information, or you are subject to the trading restrictions specified under the heading "Additional Procedures" and the sales by the recipient of LightPath Securities occur during a black out period.

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5. Other Similar Transactions.

Any other purchase of LightPath Securities from us or sales of LightPath Securities to us are not subject to this Guide.

H. ADDITIONAL PROCEDURES

1. General.

In addition to all other policies, procedures, laws, and regulations applicable to transactions by employees, officers, and directors in LightPath Securities, all transactions in LightPath Securities by (i) positions on Schedule A attached hereto, (as amended from time to time, "Schedule A"), which persons are deemed to, or likely have access to, material non-public information (referred to as "Probable Positions"), (ii) officers, (iii) directors, and (iv) their Family Members and Controlled Entities (collectively, "Covered Persons"), are generally prohibited unless prior clearance is received and such trading occurs during a trading window.

2. Prior Clearance Required.

All purchases and sales of LightPath Securities by Covered Persons must be approved in advance. For clearance or any proposed transaction, please submit the attached prior clearance approval form to the CFO attached hereto as Exhibit A. **Under no circumstances can a trade be made while the holder is in possession of material non-public information.** The requestor should also indicate whether he or she has effected any non-exempt "opposite way" transactions within the past six months, and should be prepared to report the proposed transaction on an appropriate Form 4 or Form 5. The requestor should also be prepared to comply with SEC Rule 144 and file a Form 144, if necessary, at the time of any sale.

3. The "Trading Window Periods."

Covered Persons are permitted to trade in LightPath Securities only during prescribed trading window periods. There are four trading window periods per year. Each trading window period begins on the third trading day after the public release by LightPath of its quarterly (or, in the case of the fourth quarter, annual) financial results and ends on the second to last day of the month such fiscal quarter ends. However, even during these trading windows, a Covered Person who is in possession of any material non-public information cannot trade in LightPath Securities until the information has been made publicly available or is no longer material. In addition, we may close a trading window if certain types of material non-public information regarding us (such as negotiations of mergers, acquisitions, or dispositions or new product developments) are pending and not publicly disclosed. If we impose a special black out period, we will notify our Covered Persons.

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The following table sets forth the approximate timing of “window periods,” which has been provided in order to assist Covered Persons in complying with this Guide. Covered Persons should provide this information to his or her broker in order to prevent unknowingly making open-market purchases and/or sales outside the designated window periods.

“Black Out Periods”	“Window Periods”
March 31 until 2 days after Form 10-Q is filed	3 days after Form 10-Q is filed until June 29
June 30 until 2 days after Form 10-K is filed	3 days after Form 10-K is filed until Sept. 29
Sept. 30 until 2 days after Form 10-Q is filed	3 days after Form 10-Q is filed until Dec. 30
Dec. 31 until 2 days after Form 10-Q is filed	3 days after Form 10-Q is filed until March 30

4. Approval of Trading Outside of Trading Windows.

Covered Persons may be permitted to trade outside of an open trading window, on a case-by-case basis, with the approval of the CFO, and with consultation from LightPath’s legal counsel if needed, upon a showing of unusual circumstances satisfactory to the CFO, and otherwise acceptable to LightPath’s legal counsel from the perspective of being in compliance with legal requirements.

An application form to be submitted for the consideration of hardship trades is attached hereto as Exhibit B.

I. RULE 10b5-1 PLANS

Rule 10b-5 under the Exchange Act provides an affirmative defense from insider trading liability under Rule 10b-5. In order to be eligible to rely on this defense, a person subject to this Guide must enter into a Rule 10b5-1 plan for transactions in LightPath Securities that meets certain conditions specified in the Rule 10b5-1 (a “Rule 10b5-1 Plan”). If the Rule 10b5-1 Plan meets the requirements of Rule 10b5-1, LightPath Securities may be purchased or sold without regard to certain insider trading restrictions. To comply with this Guide, a Rule 10b5-1 Plan must be approved by the CFO and meet the requirements of Rule 10b5-1 and the “Guidelines for Rule 10b5-1 Plans” attached hereto as Exhibit C. In general, a Rule 10b5-1 Plan must be entered into at a time when the person entering into the plan is not aware of material non-public information. Once the Rule 10b5-1 Plan is adopted, the person must not exercise any influence over the amount of securities to be traded, the price at which they are to be traded, or the date of the trade. The Rule 10b5-1 Plan must either specify the amount, pricing, and timing of transactions in advance or delegate discretion on these matters to an independent third party.

Any Rule 10b5-1 Plan must be submitted for approval at least ten business days prior to the entry into the Rule 10b5-1 Plan. No further pre-approval of transactions conducted pursuant to the Rule 10b5-1 Plan will be required.

J. POST-TERMINATION TRANSACTIONS

This Guide continues to apply to transactions in LightPath Securities even after termination of service to LightPath. If you are in possession of material non-public information when your service terminates, you may not trade in LightPath Securities until after that information has become public or is no longer material. The pre-clearance procedures specified under the heading “Additional Procedures” above, however, will cease to apply to transactions in LightPath Securities upon the expiration of any black out periods or other LightPath-imposed trading restrictions applicable at the time of the termination of service.

K. SECTION 16

1. General.

Pursuant to Section 16 of the Exchange Act, we can recover any profit realized by an officer, director, or stockholder directly or indirectly beneficially owning more than 10% of LightPath Securities (each, a “Section 16 Reporting Person”) from any non-exempt purchase and sale (or sale and purchase) of LightPath Securities that occurs within a period of less than six months. Unlike liability for insider trading, Section 16 liability is automatic and does not depend upon the possession or use of material non-public information. For example, all open market purchases and sales of LightPath Securities occurring within a six-month period will be matched against each other and any profit resulting from that matching will belong to us. Certain types of transactions that are exempt from profit recovery under Section 16 are discussed below.

Each Section 16 Reporting Person is required to file certain reports with the SEC under Section 16. Timeliness in filing the required reports is critical.

2. Securities Covered by Section 16.

Section 16 applies to “equity securities,” which, in general, consist of stock and “derivative securities” (i.e., securities that give the holder a right to acquire shares of common stock, such as warrants). LightPath’s common stock is considered “equity securities” and warrants and stock options are examples of “derivative securities” for Section 16 purposes.

The provisions of Section 16 apply to all LightPath equity securities “beneficially owned” by a Section 16 Reporting Person, even if the securities are not registered in such Section 16 Reporting Person’s name. Beneficial ownership is based upon whether a Section 16 Reporting Person has or shares a direct or indirect “pecuniary interest” in the subject LightPath Securities, which means a direct or indirect opportunity to profit from transactions in the securities. LightPath Securities held of record by a brokerage firm or bank as nominee for a Section 16 Reporting Person (usually said to be held in “street name”) are considered to be beneficially owned by such Section 16 Reporting Person. Section 16 Reporting Persons also are generally considered to be the beneficial owner of any securities held by his or her spouse, his or her minor children, and other immediate family members residing with such Section 16 Reporting Person (unless such Section 16 Reporting Person expressly disclaims beneficial ownership thereof). In addition, securities held by a trust or other entity may be considered to be beneficially owned by a Section 16 Reporting Person if such Section 16 Reporting Person or his or her immediate family members have certain relationships with or interests in the trust or other entity, including acting as a trustee or being a beneficiary thereunder.

3. Stock Option and Other Employee Plan Transactions.

With respect to stock options, there are three principal events that must be considered for Section 16 purposes: (i) the grant of a stock option, (ii) the exercise of a stock option, and (iii) the sale of the shares acquired upon exercise of the stock option.

The grant of a stock option is exempt from the profit recovery provisions of Section 16 provided certain requirements are met. The grant of a stock option under the Plan meets such requirements, and, thus, is exempt from Section 16 profit recovery. The exercise of a stock option is also exempt from the profit recovery provisions of Section 16. In addition, if a Section 16 Reporting Person uses previously held shares of common stock to exercise an option (a so-called “stock swap”), or have shares of common stock withheld to satisfy tax withholding requirements in a stock option exercise, the surrender or withholding of the shares of common stock is exempt from the profit recovery provisions of Section 16. Although grants or exercises of stock options under the Plan are exempt from profit recovery under Section 16, the grant or exercise of a stock option must be reported pursuant to Section 16.

The sale of shares of common stock that were acquired by exercising a stock option is not exempt from the profit recovery provisions. Accordingly, the sale of such shares could trigger a Section 16 profit recovery if the sale occurs within six months before or after a non-exempt purchase of shares. The sale of shares acquired by exercising a stock option must be reported pursuant to Section 16.

Transactions in securities indirectly held for Section 16 Reporting Persons in certain types of employee benefit plans are covered by Section 16; however, such transactions are exempt from the profit recovery provisions if certain requirements are met. However, such transactions must still be reported pursuant to Section 16.

4. Warrants.

As with stock options, there are three principal events related to warrants that must be considered for Section 16 purposes: (i) the acquisition of the warrant, (ii) the exercise of the warrant, and (iii) the sale of the shares acquired by the warrant exercise.

The acquisition of a warrant is subject to the profit recovery provisions of Section 16. All warrant acquisitions must be reported pursuant to Section 16. The exercise of an in-the-money warrant is exempt from the profit recovery provisions of Section 16 but must still be reported pursuant to Section 16. The sale of shares that were acquired by the warrant exercise is not exempt from the profit recovery provisions, and such a sale would be matched with any non-exempt purchase occurring within six months before or after the sale. The sale of shares also must be reported pursuant to Section 16.

In the event that your warrants expire out-of-the-money or if you wish to sell unexercised warrants, please consult the CFO regarding your Section 16 obligations.

5. Gifts.

As long as a gift of shares is bona fide, it is an exempt transaction, and, thus, not subject to the Section 16 profit recovery provisions. However, a Section 16 Reporting Person could be exposed to Section 16 liability if such Section 16 Reporting Person makes a gift of shares to a Family Member or Controlled Entity and that donee sells the shares within six months. Thus, except in the case of gifts of shares to a public charity, it is recommended that Section 16 Reporting Persons have an understanding with the donee to obtain such Section 16 Reporting Person’s clearance prior to a sale of any gifted shares. Although exempt from profit recovery under Section 16, gifts must be reported pursuant to Section 16.

6. Section 16 Reporting.

There are three forms that are used to report transactions that are covered by Section 16 of the Exchange Act:

Form	Time For Filing	Number of Copies and Where Filed
Form 3	Within 10 business days after the date when the person first becomes a Section 16 Reporting Person	Filed via the EDGAR system
Form 4	Within 2 business days of the date in which a non-exempt transaction* has occurred. This Form is also used to “exit” the Section 16 reporting system and is to be filed in the event of retirement, resignation, etc.	Filed via the EDGAR system
	*Such as an open market purchase or sale.	

Form 5	An annual report that must be filed no later than 45 days after the end of LightPath's fiscal year and sets forth all items not previously reported throughout the year, including exempt transactions.	Filed via the EDGAR system
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Certain exempt transactions that normally would be reported in an annual Form 5 filing (such as gifts) may be voluntarily reported early in a Form 4 filing. It is our practice to report such transactions early on Form 4 to the extent possible under the circumstances.

7. LightPath's Filing Procedures With Respect to Section 16 Officers and Directors.

Timeliness and accuracy in filing the required reports under Section 16 are critical. Although compliance with Section 16 requirements is the legal responsibility of each Section 16 Reporting Person, due to the importance of timely and accurately filed Section 16 reports, we have adopted certain procedures to assist Section 16 officers and directors with his or her filing obligations:

- all Section 16 officers and directors will be asked to execute a power of attorney authorizing the CEO or the CFO to execute and file appropriate Section 16 reports on such officer's or director's behalf;
- upon becoming a Section 16 officer or director, we will prepare a Form 3 for such officer's or director's review and upon approval will file the Form 3 with the SEC via EDGAR;
- each Section 16 officer and director is required to contact the CFO promptly following any change in his or her beneficial ownership of LightPath Securities, even if such transaction is unapproved, made in error, or otherwise made in violation of this Guide;
- upon notification by a Section 16 officer or director of a change in his or her beneficial ownership of LightPath Securities, the CFO will determine whether a Section 16 filing is required or should be filed voluntarily. If a filing is appropriate, a completed Form 4 or 5, as the case maybe, will be forwarded to such Section 16 officer or director for review; and
- a Section 16 officer or director is required to confirm the accuracy of such Form 4 or 5, as the case may be, with the CFO by the close of business on the day such form was provided. If such confirmation has not been received by that time, the CEO or the CFO is authorized to execute such Section 16 filing on behalf of such officer or director and file the same with the SEC.

L. RULE 144

1. General.

Sales of LightPath Securities by its "affiliates" are subject to specific regulations under the federal securities laws. Rule 144 promulgated under the Securities Act provides a "safe harbor" procedure under which certain sales by affiliates are permitted. Each officer and director is considered an "affiliate," and, thus, each officer and director should comply with Rule 144 when selling LightPath Securities held either directly or beneficially.

To comply with Rule 144:

- (i) the sale of securities must be made in normal brokers' transactions (or in transactions directly with a "market maker");
- (ii) the number of shares of common stock sold in any three-month period (which may include shares held by others, such as donees, that are attributable to an affiliate) cannot exceed the greater of (A) 1% of the outstanding shares of common stock or (B) the average weekly reported volume of trading in the four calendar weeks preceding the transaction;
- (iii) LightPath must be current in its available public information;
- (iv) in most cases, the affiliate must have held the securities for at least six months prior to selling any such securities; and
- (v) the affiliate must file of a Form 144 notice if the amount of securities sold pursuant to Rule 144 exceeds 5,000 shares or \$50,000 in any three-month period.

2. Rule 144 Procedures

If required, the Form 144 must be filed with the SEC and NASDAQ. The Form 144 can be filed with the SEC electronically via EDGAR or on paper. If the Form 144 is filed on paper, three copies, one of which must be manually signed, must be filed with the SEC and one copy must be filed with NASDAQ's Market Surveillance Department. If the Form 144 is filed on EDGAR, generally NASDAQ treats this as being simultaneously filed with them. The broker used in the sale should be able to assist with the filing. The Form 144 should be filed concurrently with the placing of the "sell order" with the broker.

A broker is likely to also request a Rule 144 representation letter. You should carefully read such representation letters before signing to ensure that the representations made are accurate.

M.QUESTIONS

For information or assistance on any of the matters set forth in this Guide, please contact the CEO or the CFO.

N.CERTIFICATION

All persons subject to this Guide must certify their understanding of, and intent to comply with, this Guide. A form of Certification is attached hereto as Exhibit D.

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SCHEDULE A

LIST OF PROBABLE POSITIONS

President & CEO

“C” suite positions

EVP, SVP, or VP level positions

Managing Director positions of Company Subsidiaries

Director level positions

Department manager positions

Manager of Optical Engineering Solutions

Program managers

Controller positions

Sales positions

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EXHIBIT A

LIGHTPATH TECHNOLOGIES, INC.

PRIOR CLEARANCE APPROVAL FORM

I, _____, hereby seek prior clearance approval to engage in the following proposed transaction:

- Proposed Trade Date:
- Type and Amount of Security to be Traded:
- Type of Trade (Purchase/Sale/Other):

I hereby further certify that I am not in possession of any “material non-public information” concerning LightPath Technologies, Inc. (the “Company”) (as defined in the Company’s Guide for Trading in Securities by Employees, Officers, and Directors), (ii) I have not effected any non-exempt “opposite way” transactions within the past six months, and (iii) to the best of my knowledge, the proposed trade(s) listed above do not violate the trading restrictions of Section 16 of the Securities Exchange Act of 1934, as amended, or Rule 144 under the Securities Act of 1933, as amended. I understand that if I trade while possessing such information or in violation of such trading restrictions, I may be subject to severe civil and/or criminal penalties, and may be subject to discipline by the Company up to and including termination for cause.

Signature

Date

REVIEW AND DECISION

The undersigned hereby certifies that the Chief Financial Officer has reviewed the foregoing certification and ____ APPROVES ____ PROHIBITS the proposed trade(s).

CFO

Date

EXHIBIT B**LightPath Technologies, Inc.****APPLICATION AND APPROVAL FOR TRADING BY COVERED PERSONS IN HARDSHIP SITUATIONS**

Name: _____

Title: _____

Proposed Trade Date: _____

Type of Security to be Traded: _____

Type of Trade (Purchase/Sale): _____

Reason(s) for Trading: _____

Signature_____
Date**REVIEW AND DECISION**

The undersigned hereby certifies that the Chief Financial Officer has reviewed the foregoing certification and ____ APPROVES ____ PROHIBITS the proposed trade(s).

CFO_____
Date**EXHIBIT C****GUIDELINES FOR RULE 10B5-1 PLANS**

Rule 10b5-1 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), provides an affirmative defense from insider trading liability under Rule 10b-5. In order to be eligible to rely on this defense, a person subject to the Guide for Trading in Securities by Employees, Officers, and Directors (the "Guide") must enter into a Rule 10b5-1 plan for transactions in LightPath Securities (as defined in the Guide) that meets certain conditions specified in the Rule (a "Rule 10b5-1 Plan"). If the Rule 10b5-1 Plan meets the requirements of Rule 10b5-1, LightPath Securities may be purchased or sold without regard to certain insider trading restrictions. In general, a Rule 10b5-1 Plan must be entered into at a time when the person entering into the Rule 10b5-1 Plan is not aware of material non-public information. Once the Rule 10b5-1 Plan is adopted, the person must not exercise any influence over the amount of securities to be traded, the price at which they are to be traded or the date of the trade. The Rule 10b5-1 Plan must either specify the amount, pricing, and timing of transactions in advance or delegate discretion on these matters to an independent third party.

As specified in the Guide, a Rule 10b5-1 Plan must be approved by the Chief Financial Officer and meet the requirements of Rule 10b5-1 and these guidelines. Any Rule 10b5-1 Plan must be submitted for approval ten business days prior to the entry into the Rule 10b5-1 Plan. No further pre-approval of transactions conducted pursuant to the Rule 10b5-1 Plan will be required.

The following guidelines apply to all Rule 10b5-1 Plans:

- You may not enter into, modify, or terminate a trading program during a black out period or while in possession of material non-public information.
- All Rule 10b5-1 Plans must have a duration of at least 6 months and no more than 2 years.
- If a Rule 10b5-1 Plan is terminated, you must wait at least 30 days before trading outside of the Rule 10b5-1 Plan.
- If a trading program is terminated, you must wait until the commencement of the next trading window period (as set forth in the Guide) before a new Rule 10b5-1 plan may be adopted.
- You may not commence sales under a trading program until at least 30 days following the date of establishment of a trading program. Any modification of a trading program must not take effect for at least 30 days from the date of modification.

Each director, officer, and other Section 16 insider understands that the approval or adoption of a preplanned selling program in no way reduces or eliminates such person's obligations under Section 16 of the Exchange Act, including such person's disclosure and short-swing trading liabilities thereunder. If any questions arise, such person should consult with their own counsel in implementing a Rule 10b5-1 Plan.

EXHIBIT D

CERTIFICATION

I certify that:

1. I have read and understand LightPath's Guide for Trading in Securities by Employees, Officers, and Directors (the "Guide"). I understand that the Chief Executive Officer and Chief Financial Officer are available to answer any questions I have regarding the Guide.
2. Since the effective date of the Guide, or such shorter period of time that I have been an employee, officer, or director, as applicable, I have complied with the Guide.
3. I will continue to comply with the Guide for as long as I am subject to the Guide.

Print name: _____

Signature: _____

Date: _____

Subsidiaries

GelTech Inc.	Delaware
LightPath Optical Instrumentation (Shanghai) Co., Ltd	People's Republic of China
LightPath Optical Instrumentation (Zhenjiang) Co., Ltd	People's Republic of China
ISP Optics Corporation	New York
ISP Optics Latvia, SIA	Latvia
Liebert Consulting LLC	Texas

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

LightPath Technologies, Inc.
Orlando, Florida

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-23515, 333-23511, 333-41705, 333-92017, 333-121389, 333-121385, 333-96083, 333-50976, 333-50974, 333-155044, 333-188482, 333-201871, 333-201872 and 333-221665), Form S-3 (Nos. 333-113814, 333-37443, 333-39641, 333-47905, 333-86185, 333-93179, 333-94303, 333-31014, 333-37622, 333-47992, 333-51474, 333-75528, 333-127053, 333-133772, 333-146550, 333-153743, 333-159603, 333-162342, 333-163416, 333-166633, 333-182240, 333-223028 and 333-262768) and Form S-1 (No. 333-213860) of LightPath Technologies, Inc., of our report dated September 19, 2024, relating to the consolidated financial statements, which appear in this Annual Report on Form 10-K.

/s/ MSL, P.A.

Orlando, Florida
September 19, 2024

**Certification of Chief Executive Officer
Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934**

I, Shmuel Rubin, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended June 30, 2024 of LightPath Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: September 19, 2024

/s/ Shmuel Rubin

Shmuel Rubin
President and Chief Executive Officer

**Certification of Chief Financial Officer
Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934**

I, Albert Miranda, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended June 30, 2024 of LightPath Technologies, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: September 19, 2024

/s/ Albert Miranda

Albert Miranda
Chief Financial Officer

**Certification of Chief Executive Officer
Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code**

Pursuant to U.S.C. Section 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned Chief Executive Officer of LightPath Technologies, Inc. (the "Company") does hereby certify, to the best of such officer's knowledge, that:

1. The Annual Report on Form 10-K of the Company for the annual period ended June 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: September 19, 2024

/s/ Shmuel Rubin

Shmuel Rubin

President and Chief Executive Officer

The certifications set forth above are being furnished as an exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to LightPath Technologies, Inc. and will be retained by LightPath Technologies, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Certification of Chief Financial Officer
Pursuant to Section 1350 of Chapter 63 of Title 18 of the United States Code

Pursuant to U.S.C. Section 1350, as created by Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned Chief Financial Officer of LightPath Technologies, Inc. (the "Company") does hereby certify, to the best of such officer's knowledge, that:

1. The Annual Report on Form 10-K of the Company for the annual period ended June 30, 2024 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: September 19, 2024

/s/ Albert Miranda

Albert Miranda
Chief Financial Officer

The certifications set forth above are being furnished as an exhibit solely pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall they be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended.

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging or otherwise adopting the signature that appears in typed form within the electronic version of this written statement required by Section 906, has been provided to LightPath Technologies, Inc. and will be retained by LightPath Technologies, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

LIGHTPATH TECHNOLOGIES, INC.
INCENTIVE-BASED COMPENSATION CLAWBACK POLICY

LightPath Technologies, Inc. (“Company”) has adopted this clawback policy (the “Policy”) as a supplement to any other clawback policies in effect now or in the future at the Company. To the extent this Policy applies to compensation payable to a covered person, it shall be the only clawback policy applicable to such compensation and no other clawback policy shall apply. Notwithstanding the last sentence, if another Company policy provides that a greater amount of compensation shall be subject to clawback, such other policy shall apply to the amount in excess of the amount subject to clawback under this Policy.

This Policy shall be interpreted to comply with the clawback rules found in 229 C.F.R. §240.10D and Nasdaq Listing Rule 5608, which are effective as of October 2, 2023 (collectively, the “Rule”). To the extent this Policy is in any manner deemed inconsistent with the Rule, this Policy shall be treated as retroactively amended to be compliant with the Rule.

1. Definitions. As used in the Policy, the following capitalized terms shall have the meanings set forth in this Section 1. Terms used herein shall at all times be interpreted in accordance with 229 C.F.R. §240.10D-1(d) and any other guidance that may be issued under the Rule.

(a) “Executive Officer” shall mean the Company’s president, principal financial officer, principal accounting officer, any vice-president of the Company in charge of a principal business unit, division, or function (such as sales, administration, or finance), any other officer who performs a policy-making function, or any other person who performs similar policy-making functions for the Company. Executive Officers of the Company’s subsidiaries are deemed Executive Officers of the Company if they perform such policy making functions for the Company. Identification of an Executive Officer for purposes of this Policy includes, at a minimum, Executive Officers identified pursuant to 17 C.F.R. §229.401(b).

(b) “Financial Reporting Measure” means measures, including but not limited to stock price and total shareholder return, that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and any measures that are derived wholly or in part from such measures. A Financial Reporting Measure need not be presented within the financial statements or included in a filing with the Securities Exchange Commission.

(c) “Incentive-Based Compensation” means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

2. Application of the Policy. This Policy shall only apply in the event that the Company is required to prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement to correct an error in previously issued financial statements that is material to the previously issued financial statements, or that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period.

3. Recovery Period. The Incentive-Based Compensation subject to clawback is the Incentive-Based Compensation Received during the three completed fiscal years immediately preceding the date that the Company is required to prepare an accounting restatement as described in Section 2, provided that the person served as an Executive Officer at any time during the performance period applicable to the Incentive-Based Compensation in question. The date that the Company is required to prepare an accounting restatement shall be determined pursuant to 229 C.F.R. §240.10D-1(b)(1)(ii).

(a) For purposes of this Policy, Incentive-Based Compensation is deemed “Received” in the Company’s fiscal period during which the Financial Reporting Measure specified in the Incentive-Based Compensation award is attained, even if the payment or grant of the Incentive-Based Compensation occurs after the end of that period.

(b) Notwithstanding anything to the contrary, the Policy shall only apply if the Incentive-Based Compensation is Received on or after October 2, 2023.

(c) To the extent applicable, 229 C.F.R. §240.10D-1(b)(1)(i) shall govern certain circumstances under which the Policy will apply to Incentive-Based Compensation Received during a transition period arising due to a change in the Company’s fiscal year.

4. Erroneously Awarded Compensation. The amount of Incentive-Based Compensation subject to the Policy (“Erroneously Awarded Compensation”) is the amount of Incentive-Based Compensation Received that exceeds the amount of Incentive Based-Compensation that otherwise would have been Received had it been determined based on the restated amounts and shall be computed without regard to any taxes paid. For Incentive-Based Compensation based on stock price or total shareholder return, where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in an accounting restatement:

(a) the amount shall be based on a reasonable estimate of the effect of the accounting restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was received; and

(b) the Company must maintain documentation of the determination of that reasonable estimate and provide such documentation to the exchange on which the Company's shares are listed.

5. Recovery of Erroneously Awarded Compensation. The Company shall recover reasonably promptly any Erroneously Awarded Compensation except to the extent that the conditions of paragraphs (a), (b), or (c) below apply. The Compensation Committee of the Company's Board of Directors (the "Committee") shall determine the repayment schedule for each amount of Erroneously Awarded Compensation in a manner that complies with this "reasonably promptly" requirement. Such determination shall be consistent with any applicable legal guidance, by the SEC, judicial opinion, or otherwise. The determination of "reasonably promptly" may vary from case to case and the Committee is authorized to adopt additional rules to further describe what repayment schedules satisfy this requirement.

(a) Erroneously Awarded Compensation need not be recovered if the direct expense paid to a third party to assist in enforcing the Policy (e.g., reasonable legal expenses and consulting fees) would exceed the amount to be recovered and the Committee makes a determination that recovery would be impracticable. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on expense of enforcement, the Company shall make a reasonable attempt to recover such Erroneously Awarded Compensation, establish that the direct costs of recovery exceed the recovery amounts, document such reasonable attempt(s) to recover, and provide that documentation to the exchange on which the Company's shares are listed.

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(b) Erroneously Awarded Compensation need not be recovered if recovery would violate home country law where that law was adopted prior to November 28, 2022. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on violation of home country law, the Company shall obtain an opinion of home country counsel, acceptable to the exchange on which the Company's shares are listed, that recovery would result in such a violation and shall provide such opinion to such exchange.

(c) Erroneously Awarded Compensation need not be recovered if recovery would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the Company or its subsidiaries, to fail to meet the requirements of Sections 401(a)(13) or 411(a) of the Internal Revenue Code of 1986, as amended, and regulations thereunder.

6. Committee decisions. Decisions of the Committee with respect to this Policy shall be final, conclusive, and binding on all Executive Officers subject to this Policy, unless determined to be an abuse of discretion.

7. No Indemnification. Notwithstanding anything to the contrary in any other policy of the Company or any agreement between the Company and an Executive Officer, no Executive Officer shall be indemnified by the Company against the loss of any Erroneously Awarded Compensation.

8. Agreement to Policy by Executive Officers. The Committee shall take reasonable steps to inform Executive Officers of this Policy and obtain their acknowledgement of this Policy, which steps may include the inclusion of this Policy as an attachment to any award that is or has been accepted by the Executive Officer.

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