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LIGHTPATH TECHNOLOGIES INC

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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, 2020

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	**86-0708398**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No)**

http://www.lightpath.com

2603 Challenger Tech Court, Suite 100 **Orlando, Florida 32826**	**(407) 382-4003**
(Address of principal executive offices, including zip code)	**(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 ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☒ Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 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 $14,888,739 as of December 31, 2019.

As of September 9, 2020, the number of shares of the registrant's Class A Common Stock outstanding was 26,012,831.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Proxy Statement for the Fiscal 2021 Annual Meeting of Stockholders are incorporated by reference in Part II and Part III.

LightPath Technologies, Inc.
Form 10-K

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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, objectives, goals, projections, strategies, future events, or performance, statements related to the expected effects on our business from the coronavirus ("COVID-19") pandemic, 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 on our current expectations and beliefs concerning future developments and their potential effect on us. 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.

PART I

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 major facilities in the United States, the People's Republic of China and the Republic of Latvia.

Capabilities

Our capabilities include precision molded optics, thermal imaging optics and custom designed optics. These capabilities allow us to manufacture 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. We design, develop, manufacture and distribute optical components and assemblies utilizing advanced optical manufacturing processes. We serve a wide and diverse number of industries including defense and security, optical systems and components, datacom/telecom, information technology, life sciences, machine vision and production technology. Our products are incorporated into a variety of applications by our broad and diverse customer base. These applications include defense products, medical devices, laser aided industrial tools, automotive safety applications, barcode scanners, optical data storage, hybrid fiber coax datacom, telecommunication optical networks, machine vision and sensors, among others. All the products we produce enable lasers and imaging devices to function more effectively. For example:

- *Molded glass aspheres and assemblies* are used in various high-performance optical applications primarily based on laser technology;
- *Infrared molded lenses, diamond turned, conventional and CNC ground and polished lenses and assemblies* using short ("SWIR"), mid ("MWIR") and long ("LWIR") wave transmitting materials are used in applications for fever detection, firefighting, predictive maintenance, homeland security, surveillance, automotive, cell phone infrared cameras, pharmaceutical research & development and defense; and
- *Collimator assemblies* are used 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.

The Company has robust and innovative manufacturing technologies and is vertically integrated from optical design through testing. Manufacturing strengths include the ability to use multiple optical glasses (visible and infrared spectrums), multiple lens fabrication methods (precision molding, single point diamond turning, and both conventional and CNC grind and polish), anti-reflective coatings, wear resistant coatings (such as diamond-like carbon or "DLC"), assembly and test.

Subsidiaries

In November 2005, we formed LightPath Optical Instrumentation (Shanghai) Co., Ltd ("LPOI"), a wholly-owned subsidiary, located in Jiading, People's Republic of China. The LPOI facility (the "Shanghai Facility") is primarily used for 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 primary manufacturing facility in China and provides a lower cost structure for production of larger volumes of optical components and assemblies. Late in fiscal 2019, this facility was expanded from 39,000 to 55,000 square feet to add capacity for polishing to support our growing infrared business.

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. Historically, ISP's Irvington, New York facility (the "Irvington Facility") functioned as its global headquarters for operations, while also providing manufacturing capabilities, optical coatings, and optical and mechanical design, assembly, and testing. In June 2019, we completed the relocation of this manufacturing facility to our existing facilities in Orlando, Florida and Riga, Latvia. 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").

Product Groups and Markets

Overview

Our business is organized into three product groups: precision molded optics ("PMO"), infrared products and specialty products. These product groups are supported by our major product capabilities: molded optics, thermal imaging optics, and custom designed optics.

Our PMO product group consists of visible precision molded optics with varying applications. Our infrared product group is comprised of infrared optics, both molded and diamond-turned, and thermal imaging assemblies. This product group also includes both conventional and CNC ground and polished lenses. Between these two product groups, 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 0.4mm to over 2000mm. In addition, both product groups offer both catalog and custom designed optics.

Our specialty product group is comprised of value-added products, such as optical subsystems, assemblies, and collimators, and non-recurring engineering ("NRE") products, consisting of those products we develop pursuant to product development agreements that we enter into with customers. Typically, customers approach us and request that we develop new products or applications for our existing products to fit their particular needs or specifications. The timing and extent of any such product development is outside of our control.

We have also aligned our marketing efforts by our capabilities (*i.e.,* molded optics, thermal imaging optics, and custom optics), and then by industry. We currently serve the following major markets: defense and security, optical systems and components, datacom/telecom, information technology, life sciences, machine vision and production technology. Customers in each of these markets may select the best optical technologies that suit their needs from our entire suite of products, availing us to cross-selling opportunities, particularly where we can leverage our knowledge base against our expanding design library. Within our product groups, we have various applications that serve our major markets. For example, our infrared products can be used for gas sensing devices, spectrometers, night vision systems, advanced driver-assistance systems ("ADAS"), thermal weapon gun sights, and infrared counter measure systems, among others.

The photonics market drives our growth and is comprised of eight application areas: information and communication technology, display, lighting, photovoltaic, production technology, life sciences, and measurement and automated vision. In 2018, the market size for these applications at the system level was $556.4 billion. LightPath has product applications in six of the eight application areas, all except for displays and photovoltaic. According to the latest Markets and Markets survey, published in 2019, these six application areas had an estimated market value of $401 billion and are growing at a 7% compound annual growth rate. Within the larger overall markets, we believe there is a market of approximately $2.0 billion for our current products and capabilities. We continue to believe our products will provide significant growth opportunities over the next several years and, therefore, we will continue to target specific applications in each of these major markets. In addition to these major markets, a large percentage of our revenues are derived from sales to unaffiliated companies that purchase our products to fulfill their customers' orders, as well as unaffiliated companies that offer our products for sale in their catalogs.

Our strategy is to capitalize on optics as an enabling technology across many industries and markets, by leveraging our key differentiators, including our deep design and manufacturing expertise, our technology, and our established low-cost vertically integrated manufacturing capabilities. In addition, we intend for our product managers and sales force to work together to focus on pursuing customer growth opportunities where our differential advantages coincide with key customer needs.

Product Groups

Beginning in late 2019, we implemented a product management function, with a product manager for each of our major product capabilities: molded optics, thermal imaging optics and custom designed optics. Product management is principally a portfolio management process that analyzes products within the product capability areas as defined above. This function has begun to facilitate choosing investment priorities to help strategically align our competencies with strategic industry revenue opportunities. Over the longer term, this function will also help ensure successful product life cycle management. The following further discusses the various products we offer and certain growth opportunities we anticipate for each such product.

PMO 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.

Infrared Product Group. Our infrared product group is comprised of both molded and turned infrared lenses and assemblies using a variety of infrared glass materials. Advances in chalcogenide materials have enabled compression molding for MWIR and 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.

Through ISP, our wholly-owned subsidiary, we also 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. The capabilities we have from ISP give us the ability to meet complex optical challenges that demand more exotic optical substrate materials that are non-moldable, as well as larger size optics.

Near the end of fiscal 2018, we announced comprehensive production capabilities and global availability for a new line of infrared lenses made from chalcogenide glass. We developed this glass and melt it internally to produce our Black Diamond 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.

Overall, we anticipate growth for infrared optics, particularly as BD6 continues to be adopted into new applications and new designs. 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.

Specialty Product Group. We offer a group of custom specialty optics products and assemblies that take advantage of our unique technologies and capabilities. These products include custom optical designs, mounted lenses, optical assemblies, and collimator assemblies. Collimator assemblies for 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 into markets for test and measurement, medical devices, military, industrial, and communications based on our proprietary technologies. Many of our optical assemblies consist of several products that we manufacture.

Growth Strategy

Over the last few months, through an intensive discovery and analysis process, our leadership has worked to develop and re-define our strategic direction.

As a component company with its roots deep in optics manufacturing technology, we are known for our innovative products and solutions, which we have leveraged over the years to focus on the delivery of "best in class" and cost leading optical components. Initially, we focused on standard glass PMO products, and later, through the acquisition of ISP, as well as internal research and development, we began to shift our focus to products specific to the infrared market.

As is typical with a company with origins in component manufacturing, over the years, we have focused on our products and technology, and became a leader in molded optical glass components. We then leveraged that experience and know-how into infrared optics. However, during the 30 years since we began delivering our innovative molded optics, the uses of optical technology have grown exponentially.

With the expansion of optical applications into many industries, technologies and products, customers' needs have changed, and customers now often seek a partner that can complement their capabilities and support their implementation of optics into their products. We are well positioned to become the partner of choice for OEM customers integrating optics into their products because of our optical technologies expertise, design of optical systems, and manufacturing of the individual components, as well as assemblies.

To execute on this strategic direction, we intend to focus on the following strategic priorities:

1. ***Capitalize on the Opportunity.*** We recognize that the opportunity for optics and optical assemblies has changed over the past several years. Optics (or more generally photonics) and optical technologies are increasingly pervasive across numerous industries and markets. Optics is not an industry vertical in itself, but an enabling technology that spans industries well beyond telecommunications. Optics has become a key technology in industries such as automotive, defense, medical, surveillance, industrial equipment, and many other industries. As such, we have an enormous market opportunity for our products globally, and the opportunity is diversified across many industries and end markets.

2. ***Prioritize Key Differentiators.*** We will prioritize the key differentors that we bring to the photonics market and what we can provide to our customers. Namely, we believe that these key differentiators are our deep design and manufacturing expertise coupled with key optical technologies, as well as a global presence of market penetration and low-cost manufacturing.

3. ***Continue to Drive Operational Excellence.*** We acknowledge the importance of continuous improvement and will intensify our focus on operational excellence. This will encompass both short- and long-term initiatives throughout the organization and be supported by a culture that values results and accountability.

4. ***Create Solutions for Our Customers.*** We will leverage our unique capabilities using our expertise in optical design and manufacturing to create solutions for our customers rather than simply components. Over time, we believe this will promote a richer business model supported by longer term partnerships with our customers.

5. ***Invest in Our People.*** We will invest in world class optical design and engineering talent and a strong sales force that can focus and prioritize customer opportunities that align with our strategic goals.

We will work to change the operations and execution culture to be "best in class." We will remain focused on identifying and investing in the opportunities best suited to deliver on our strategy. We believe that this new strategic focus will put us on a path to provide even more value to our customers, greater opportunities to our employees, and better financial returns to our stockholders.

Sales and Marketing

Marketing. Extensive product diversity and varying levels of product maturity characterize the optics industry. Product markets range from consumer (e.g., cameras 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., robotics and semiconductor production equipment) and communications (e.g., various optics are required for bandwidth expansion and improved data transfer for the optical network). As a result, we market our products across a wide variety of customer groups, including laser systems manufacturers, laser OEMs, infrared-imaging systems vendors, industrial laser tool manufacturers, telecommunications equipment manufacturers, medical and industrial measurement equipment manufacturers, government defense agencies, and research institutions worldwide.

Technical Sales Model. To align the organization for specific goals and accountability, we have made a number of organizational changes designed to ensure we continue to leverage the expanded capabilities and manage our broader product portfolio. First, our organizational structure now enables the close coordination of supply with demand. We created a product management function to manage the portfolio of products and identify our best growth opportunities. Finally, in June 2020, we hired a Vice President of Global Sales and Marketing to lead our Sales and Marketing organization.

Sales Team & Channel. We have expanded our inside sales and application engineering organization to better support our regional sales forces that market and sell our products directly to customers in North America, Europe and China. We also have a master distributor in Europe. We have formalized relationships with 15 industrial, laser, and optoelectronics distributors and channel partners located in the United States ("U.S.") and various foreign countries to assist in the distribution of our products in highly specific target markets. We also have reseller arrangements with the top three product catalog companies in the optics and opto-electronics market. In addition, we also maintain our own product catalog and internet websites (www.lightpath.com and www.ispoptics.com) as vehicles for broader promotion of our products. We make use of print media advertisements in various trade magazines and participate in appropriate domestic and foreign trade shows.

All of our partners work diligently to expand opportunities in emerging geographic markets and through alternate channels of distribution. We believe that we provide a high level of support in developing and maintaining our long-term relationships with our customers. Customer service and support are provided through our offices and those of our partners that are located throughout the world.

Trade Shows. Generally, we display our product line additions and enhancements at one or more trade shows each year. As a result of COVID-19, however, several of these trade shows were either cancelled or modified into virtual trade shows. Prior to COVID-19, we participated in several U.S.-based shows including Society of Photographic Instrumentation Engineers ("SPIE") Photonics West in February 2020. In addition, we participated, virtually, in the Optical Society of America ("OSA") Industry Development Associates ("OIDA") Showcase in August 2020, and intend to exhibit at the China International Optoelectronic Expo ("CIOE") in September 2020. This strategy underscores our strategic directive of broadening our base of innovative optical components and assemblies. These trade shows, even as virtual events, also provide an opportunity to meet with and enhance existing business relationships, meet and develop potential customers, and to distribute information and samples regarding our products.

Competition

The market for optical components generally is highly competitive and highly fragmented. We compete with manufacturers of conventional spherical lenses and optical components, providers of aspheric lenses and optical components, and producers of optical quality glass. To a lesser extent, we compete with developers of specialty optical components and assemblies, particularly as related to our custom products within the infrared product group. Many of these competitors have greater financial, manufacturing, marketing, and other resources than we do.

We believe our unique capabilities in optical design engineering, our low-cost structure and our substantial presence in Europe and Asia, provides us with a competitive edge and assists us in securing business. Additionally, we believe that we offer value to some customers as a primary or backup supply source in the U.S. should they be unwilling to commit to purchase their supply of a critical component from a foreign production source. We also have a broad product offering to satisfy a variety of applications and markets.

PMO Product Group. Our PMO products compete with conventional lenses and optical components manufactured by 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 these competitors.

Plastic molded aspheres and hybrid plastic/glass aspheric optics, on the other hand, 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.

Infrared Product Group. Our infrared aspheric optics compete with optical products produced by Janos Technology LLC, Ophir Optronics Solutions Ltd. (a subsidiary of MKS Instruments, Inc.), Clear Align and a variety of Eastern European and Asian manufacturers. These traditional infrared lenses can either be polished spherical or are diamond turned aspherical. Our molded lenses compete with spherical lenses because like all aspheres they can replace doublets or triplets based on the higher performance of an aspheric lens. Our proprietary BD6 (chalcogenide material), a lower cost replacement for Germanium, gives us a competitive advantage as it can be diamond turned or molded depending upon customer requirements. In addition, our low-cost, high volume lens molding technology combined with our lens fabrication capabilities in China and Latvia, which are low-cost regions, enables us to compete with the other manufacturers of infrared lens by offering the best technology fit at a competitive price.

Our molded infrared optics competes with products manufactured by Umicore N.V. (“Umicore”), Rochester Precision Optics, and a number of Asian and European manufacturers. We believe that our optical design expertise, our BD6-based product offerings, our diverse manufacturing flexibility, and our manufacturing facilities located in Asia, Europe and North America are key advantages over the products manufactured by these competitors.

Manufacturing

Facilities. Our manufacturing is largely performed in our combined 38,000 square feet of production facilities in Orlando, Florida (the “Orlando Facility”), in LPOIZ’s combined 55,000 square feet of production facilities in Zhenjiang, China, and in ISP Latvia’s 23,000 square feet of production facilities in Riga, Latvia. LPOI sales and support functions occupy a 1,900 square foot facility in Shanghai.

Our Orlando Facility and LPOIZ’s Zhenjiang Facility feature areas for each step of the manufacturing process, including coating work areas, diamond turning, preform 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, including crystal growth, CNC grinding, conventional polishing, diamond turning, multilayer coatings, assemblies and state of the art metrology.

We are routinely adding additional production equipment at our Orlando, Zhenjiang and Riga Facilities. During fiscal 2018, we added additional space in both our Zhenjiang and Riga Facilities. In fiscal 2019, we completed our expansion in Orlando and closed the Irvington Facility, moving the manufacturing operations to the Orlando Facility and the Riga Facility. We also completed an expansion to our Zhenjiang operation increasing our preform capacity. In addition to adding additional equipment or space at our manufacturing facilities, we add additional 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 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 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 crystal growth department is equipped with multiple furnaces to grow water soluble crystals. 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. In connection with the relocation of the Irvington Facility, we have increased the diamond turning capacity in this facility. 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 repeatable 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. ISP utilizes 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 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.

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 there can be no assurance in this regard.

Intellectual Property

Our policy is to protect our technology by, among other things, patents, trade secret protection, 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 security measures to protect our trade secrets and proprietary know-how, to the extent that is reasonable.

In addition to trade secrets and proprietary know-how, we have three remaining patents that relate to the fusing of certain of our lenses that are part of our specialty products group. These patents expire at various times through 2023. We also are in the process of applying for multiple new patents.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to ours or that compete with ours. Patent, trademark, and trade secret laws afford only limited protection for our technology and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the U.S. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable, if the design around is favorably received in the marketplace. In addition, if any of our products or technology is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future. Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement, invalidity, misappropriation, or other claims.

We own several registered and unregistered service marks and trademarks that are used in the marketing and sale of our products. The following table sets forth our registered and unregistered service marks and trademarks, if 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	October 22, 2022
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	August 12, 2022

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.

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.

New Product Development

In recent years, our new product development efforts have been focused on the development of our capabilities in molded aspheric lenses and infrared lenses. We incurred expenditures for new product development during fiscal 2020 and 2019 of approximately $1.7 million and $2.0 million, respectively. In fiscal 2020 and 2019, our efforts were concentrated on expanding our product capabilities for molded optics and thermal imaging optics, to continue increasing our product offerings, lower costs and increase capacity in response to demand for both our PMO and infrared products.

In line with our new strategic priorities we anticipate continuing to invest in new product development with a stronger focus on providing complete customer-specific solutions as well as continuing to develop new core technologies that will allow us to differentiate ourselves in the marketplace and create solutions for our customers. Our spending on new product development may begin to increase as we review implementation of our strategic plan and align our capabilities and new product development to that plan.

For more difficult or customized products, we typically bill our customers for engineering services as a NRE fee.

Concentration of Customer Risk

In fiscal 2020, we had sales to three customers that comprised an aggregate of approximately 31% of our annual revenue with one customer at 15% of our sales, another customer at 10% of our sales, and the third customer at 6% of our sales. In fiscal 2019, we had sales to three customers that comprised an aggregate of approximately 32% of our annual revenue with one customer at 17% of our sales, another customer at 8% of our sales, and the third customer at 7% 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. We continue to diversify our business in order to minimize our sales concentration risk.

In fiscal 2020, 66% of our net revenue was derived from sales outside of the U.S., with 96% of our foreign sales derived from customers in Europe and Asia. In fiscal 2019, 62% 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.

Employees

As of June 30, 2020, we had 372 employees, of which 363 were full-time equivalent employees, with 106 in the U.S., including 102 located in Orlando, Florida and 4 working remotely from various locations, 96 located in Riga, Latvia, and 170 located in Jiading and Zhenjiang, China. Of our 363 full-time equivalent employees, we have 40 employees engaged in management, administrative, and clerical functions, 27 employees in new product development, 19 employees in sales and marketing, and 286 employees in production and quality control functions. Any employee additions or terminations over the next twelve months will be dependent upon the actual sales levels realized during fiscal 2021. We have used and will continue utilizing part-time help, including interns, temporary employment agencies, and outside consultants, where appropriate, to qualify prospective employees and to ramp up production as required from time to time. None of our employees are represented by a labor union.

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

Our business, results of operations, financial condition, cash flows, and the stock price of our Class A common stock can be adversely affected by pandemics, epidemics, or other public health emergencies, such as the recent outbreak of COVID-19. Our business, results of operations financial condition, cash flows, and the stock price of our Class A common stock can be adversely affected by pandemics, epidemics, or other public health emergencies, such as the recent outbreak of COVID-19, which has spread from China to many other countries across the world, including the United States. In March 2020, the World Health Organization (the "WHO") declared COVID-19 as a pandemic. The COVID-19 pandemic has resulted in governments around the world implementing increasingly stringent measures to help control the spread of the virus, including "stay at home" orders, travel restrictions, business curtailments, school closures, and other measures.

We are considered an "essential business," as a critical supplier to both the medical and defense industries. To date, we have continued to operate our manufacturing facilities consistent with government guidelines and state and local orders; however, the outbreak of COVID-19 and any preventive or protective actions taken by governmental authorities may have a material adverse effect on our operations, supply chain, customers, and transportation networks, including business shutdown or disruptions. The extent to which COVID-19 may adversely impact our business depends on future developments, which are highly uncertain and unpredictable, depends upon the severity and duration of the outbreak and the effectiveness of actions taken globally to contain or mitigate its effect. Any resulting financial impact cannot be estimated reasonably at this time, but may materially adversely affect our business, results of operations, financial condition, and cash flows. Even after the COVID-19 pandemic has subsided, we may experience materially adverse impacts to our business due to any resulting economic recession or depression. Additionally, concerns over the economic impact of COVID-19 have caused extreme volatility in financial and other capital markets, which has and may continue to adversely impact our stock price and our ability to access capital markets. To the extent the COVID-19 pandemic may adversely affect our business and financial results, it may also have the effect of heightening many of the other risks described in this Annual Report on Form 10-K.

We have a history of losses. Although we reported net income of $0.9 million for fiscal 2020, we incurred a net loss of $2.7 million for fiscal 2019. Prior to fiscal 2019, we reported net income of $1.1 million and $7.7 million for fiscal 2018 and 2017, respectively, but we have a history of losses prior to fiscal 2016. As of June 30, 2020, we had an accumulated deficit of approximately $197.1 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 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 are dependent on a few key customers, and the loss of any key customer could cause a significant decline in our revenues. In fiscal 2020, we had sales to three customers that comprised an aggregate of approximately 31% of our annual revenue with one customer at 15% of our sales, another customer at 10% of our sales, and the third customer at 6% of our sales. In fiscal 2019, we had sales to three customers that comprised an aggregate of approximately 32% of our annual revenue, with one customer at 17% of our sales, another customer at 8% of our sales, and the third customer at 7% of our sales. In both fiscal 2020 and 2019, these top three customers include a distributor, which actually represents sales to numerous customers. Our current strategy is to leverage our broader portfolio of products to expand our customer base. However, we continue to diversify our business in order to minimize our sales concentration risk. The loss of any of these customers, or a significant reduction in sales to any such customer, would adversely affect our revenues.

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 2020, 66% of our net revenue was derived from sales outside of the U.S., with 96% of our foreign sales derived from customers in Europe and Asia. In fiscal 2019, 62% 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. 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.;
- 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.

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.

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.

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. The U.S. government has made statements and taken certain actions that have led to, and may lead to, further changes to U.S. and international trade policies, including recently imposed 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.

The current U.S. President, members of his Administration, and other public officials, including members of the current United States Congress, continue to signal that the U.S. may further alter its trade policy, including taking certain actions that may further impact U.S. trade policy, including new or increased tariffs on certain goods imported into the U.S. Further, 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.

Tariffs had negative impact on our cost of sales beginning late in fiscal 2019. As a result, we implemented a number of strategies to mitigate the current and, hopefully, future impact of tariffs. These strategies mitigated the impact of tariffs beginning in the second quarter of fiscal 2020. However, given the uncertainty regarding the scope and duration of the effective and proposed tariffs, as well as the potential for additional trade actions by the U.S. or other countries, any future impact on our operations and financial results is uncertain and these impacts could be more significant than those we experienced in fiscal 2020. 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.

Our future growth is partially dependent on our market penetration efforts. Our future growth is partially dependent on our market penetration efforts, which include diversifying our sales to high-volume, low-cost optical applications and other new market and product opportunities in multiple industries. While we believe our existing products are commercially viable, we anticipate the need to educate the optical components markets in order to generate market demand and market feedback may require us to further refine these products. Expansion of our product lines and sales into new markets will require significant investment in equipment, facilities, and materials. There can be no assurance that any proposed products will be successfully developed, demonstrate desirable optical performance, be capable of being produced in commercial quantities at reasonable costs, or be successfully marketed.

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.

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 develop and successfully introduce new and enhanced products that meet the needs of our customers, our business may not be successful. Our future success depends, in part, on our ability to anticipate our customers' needs and develop products that address those needs. Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing, and coordinate our efforts with the efforts of our suppliers to rapidly achieve efficient volume production. If we fail to effectively transfer production processes, develop product enhancements, or introduce new products that meet the needs of our customers as scheduled, our net revenues may decline, which would adversely affect our 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. We organized our business based on three product groups: PMOs, infrared products, and specialty products. In fiscal 2020, sales of PMO products represented approximately 42% of our net revenues, sales of infrared products represented approximately 52% of our net revenues, and sales of specialty products represented 6% of our revenues. In the future, we expect growth in both our PMO and infrared product groups. Continued and expanding market acceptance of these products, particularly our BD6-based infrared products, 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.

We may need additional capital to sustain our operations in the future, and may need to seek further financing, which we may not be able to obtain on acceptable terms or at all, which could affect our ability to implement our business strategies. We have limited capital resources. Our operations have historically been largely funded from the proceeds of equity financings with some level of debt financing as well as cash flow from operations. In recent years we have generated sufficient capital to fund our operations and necessary investments. Accordingly, in future years, we anticipate only requiring additional capital to support acquisitions that would further expand our business and product lines. We may not be able to obtain additional financing when we need it on terms acceptable to us, or at all.

Our future capital needs will depend on numerous factors including: (i) profitability; (ii) the release of competitive products by our competition; (iii) the level of our investment in research and development; and (iv) the amount of our capital expenditures, including equipment and acquisitions. We cannot assure you that we will be able to obtain capital in the future to meet our needs. If we are unable to raise capital when needed, our business, financial condition, and results of operations would be materially adversely affected, and we could be forced to reduce or discontinue our operations.

Litigation may adversely affect our business, financial condition, and results of operations. From time to time in the normal course of business operations, we may become subject to litigation that may result in liability material to our financial statements as a whole or may negatively affect our operating results if changes to our business operations are required. The cost to defend such litigation may be significant and is subject to inherent uncertainties. Insurance may not be available at all or in sufficient amounts to cover any liabilities with respect to these or other matters. There also may be adverse publicity with litigation that could negatively affect customer perception of our business, regardless of whether the allegations are valid or whether we are ultimately found liable. An adverse result in any such matter could adversely impact our operating results or financial condition. Additionally, any litigation to which we are subject could also require significant involvement of our senior management and may divert management's attention from our business and operations.

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 2020 and 2019, we recognized net losses of approximately $214,000 and $436,000 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.

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 the Company would seek to rebalance its strategic materials sourcing.

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 2020, greater than 50% of our cash was held abroad. We generally consider unremitted earnings of our subsidiaries operating outside of the U.S. to be indefinitely reinvested. During fiscal 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. Based on retained earnings as of December 31, 2019, the end of our last statutory tax year, LPOIZ had approximately $4.8 million available for repatriation and LPOI did not have any earnings available for repatriation. 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.

Our business may be materially affected by changes to fiscal and tax policies. Potentially negative or unexpected tax consequences of these policies, or the uncertainty surrounding their potential effects, could adversely affect our results of operations and the price of our Class A common stock. The U.S. Tax Cuts and Jobs Act of 2017 (the "TCJA") was approved by the U.S. Congress on December 20, 2017 and signed into law on December 22, 2017. This legislation made significant changes to the U.S. Internal Revenue Code of 1986, as amended (the "IRC"). Such changes include a reduction in the corporate tax rate from 35% to 21%, limitation on the deductibility of interest expense and performance based incentive compensation, and implementation of a modified territorial tax system, including a provision that requires companies to include their global intangible low-taxed income and its effect on our U.S. taxable income (effectively, non-U.S. income in excess of a deemed return on tangible assets of non-U.S. corporations), among other changes.

In addition, the TCJA requires complex computations to be performed that were not previously required in U.S. tax law, significant judgments to be made in interpretation of the provisions of the TCJA and significant estimates in calculations, and the preparation and analysis of information not previously relevant or regularly produced. Implementation of the TCJA required us to calculate a one-time transition tax on certain foreign earnings and profits ("foreign E&P") that had not been previously repatriated. During fiscal 2018, we provisionally determined our foreign E&P inclusion, and anticipated that we would not owe any one-time transition tax due to the utilization of U.S. net operating loss ("NOL") carryforward benefits against these earnings. During fiscal 2019, we completed our analysis of the TCJA, and although we did not owe any one-time transition tax, the deferred tax asset related to our NOL carryforwards was impacted by approximately $202,000. This amount is offset by our valuation allowance for a net impact of zero to our income tax provision.

The TCJA may also impact our repatriation strategies in the future. Foreign governments may enact tax laws in response to the TCJA that could result in further changes to global taxation and materially affect our financial position and results of operations. The uncertainty surrounding the effect of the reforms on our financial results and business could also weaken confidence among investors in our financial condition. This could, in turn, have a materially adverse effect on the price of our Class A common stock.

On March 27, 2020, the President signed into law the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), which, among other things, is intended to provide emergency assistance to qualifying businesses and individuals. The CARES Act also suspends the limitation on the deduction of NOLs arising in taxable years beginning before January 1, 2021, permits a five-year carryback of NOLs arising in taxable years beginning after December 31, 2017 and before January 1, 2021, and generally modifies the limitation on the deduction for net interest expense to 50% of adjusted taxable income for taxable years beginning in 2019 and 2020. During fiscal 2020, as a result of the CARES Act, the Company was able to accelerate the recovery of an income tax receivable related to previously paid alternative minimum tax. The receivable amount of approximately $107,000 as of June 30, 2020 was collected in July 2020. In addition, the Company elected to utilize the payroll tax deferral under the CARES Act, resulting in cash savings of approximately $100,000, accrued as of June 30, 2020 and deferred until at least December 31, 2021. While we may receive further financial, tax, or other relief and other benefits under and as a result of the CARES Act, it is not possible to estimate at this time the availability, extent, or impact of any such relief.

Further, our worldwide operations subject us to the jurisdiction of a number of taxing authorities. The income earned in these various jurisdictions is taxed on differing basis, including net income actually earned, net income deemed earned, and revenue-based tax withholding. The final determination of our income tax liabilities involves the interpretation of local tax laws, tax treaties, and related authorities in each jurisdiction, as well as the use of estimates and assumptions regarding the scope of future operations and results achieved and the timing and nature of income earned and expenditures incurred. Changes in or interpretations of tax law and currency/repatriation control could impact the determination of our income tax liabilities for a tax year, which, in turn, could have a materially adverse effect on 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 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, 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 could experience delays as a result of evaluating and testing the products or services of potential alternative suppliers. The decline in demand in the telecommunications equipment industry 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. For example, increasing labor costs in China has 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.

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 two leases, one that expires in April 2022 and the other in November 2022. The Riga Facility is subject to a lease that expires in December 2022, and the Zhenjiang Facility is subject to three leases that expire in December 2021, April 2022, and June 2022. 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 not have detailed disaster recovery plans for our facilities and 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.

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 business could suffer as a result of the United Kingdom's decision to end its membership in the European Union. In January 2020, the United Kingdom and the European Union entered into a withdrawal agreement pursuant to which the United Kingdom formally withdrew from the European Union on January 31, 2020 (generally referred to as "BREXIT"). Following such withdrawal, the United Kingdom entered into a transition period scheduled to end on December 31, 2020. During the transition period, the United Kingdom will remain subject to European Union law and maintain access to the European Union single market and to the global trade deals negotiated by the European Union on behalf of its members. There remains substantial uncertainty surrounding the ultimate impact of BREXIT and any associated transition period.

The effects of BREXIT will depend on any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently. The measures could potentially disrupt some of our target markets and jurisdictions in which we operate, and adversely change tax benefits or liabilities in these or other jurisdictions. In addition, BREXIT could lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which European Union laws to replace or replicate. BREXIT also may create global economic uncertainty, which may cause our customers and potential customers to monitor their costs and reduce their budgets for either our products or other products that incorporate our products. Any of these effects of BREXIT, among others, could materially adversely affect our business, business opportunities, results of operations, financial condition, and cash flows.

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. 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.

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.

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.

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. We also have a sales, marketing, and administrative office in Shanghai, China. The following schedule presents the approximate square footage of our offices and facilities as of June 30, 2020:

Location	Square Feet	Commitment and Use
Orlando, Florida	38,000	Leased; 3 suites used for corporate headquarters offices, manufacturing, and research and development
Irvington, New York	13,000	Leased; ceased use as of June 30, 2019 (lease expired on August 31, 2020)
Zhenjiang, China	55,000	Leased; 1 building used for manufacturing, and 1 floor of 1 building used for manufacturing
Shanghai, China	1,900	Leased; 1 office suite used for sales, marketing and administrative offices
Riga, Latvia	23,000	Leased; 2 office suites used for administrative offices, manufacturing and crystal growing

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, *Lease Commitments*, 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 legal proceeding to which we are a party to or to which our property is subject to and, to the best of our knowledge, no adverse legal activity is anticipated or threatened.

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 NCM under the symbol “LPTH”.

Holders

As of August 28, 2020, we estimate there were approximately 202 holders of record and approximately 15,876 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.

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 provides funds for 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.

Potential Impact of COVID-19

In March 2020, the WHO declared the outbreak of COVID-19 as a pandemic based on the rapid increase in global exposure. COVID-19 continues to spread throughout world, including the United States. As a result of the COVID-19 pandemic, our employees at our facilities in China, Latvia, and the U.S. were subject to stay-at-home orders, which restrictions have been lifted as of the date of this Annual Report on Form 10-K. Despite these stay-at-home orders, as a critical supplier to both the medical and defense industries, we were deemed to be an essential business; thus, regardless of the stay-at-home orders, our workforce was permitted to work from our facilities and our business operations have continued to operate as normal. Nonetheless, despite the lifting of these stay-at-home orders, out of concern for our workforce, we have directed our U.S.- and Latvia-based non-manufacturing employees to work remotely. In the case of our manufacturing staff in the United States, China, and Latvia, we have staggered shifts to reduce contact within shifts and between different shifts, where possible, and have minimized interaction and physical proximity between employees working within the same building. To date, we have not seen any direct impact of COVID-19 to our business. However, the COVID-19 pandemic continues to impact economic conditions, which could impact the short-term and long-term demand from our customers and, therefore, has the potential to negatively impact our results of operations, cash flows, and financial position in the future. Management is actively monitoring this situation and any impact on our financial condition, liquidity, and results of operations. However, given the daily evolution of the COVID-19 pandemic and the global responses to curb its spread, we are not presently able to estimate the effects of the COVID-19 pandemic on our future results of operations, financial, or liquidity in fiscal year 2021 or beyond.

Results of Operations

Operating Results for Fiscal Year Ended June 30, 2020 compared to the Fiscal Year Ended June 30, 2019:

Revenues:
Revenue for fiscal 2020 was approximately $35.0 million, an increase of 4%, as compared to $33.7 million in fiscal 2019. Revenue generated by infrared products was approximately $18.1 million in fiscal 2020, an increase of 5%, as compared to the prior fiscal year. The increase in infrared product revenue is primarily attributable to sales of BD6-based infrared products for both thermal imaging and temperature sensing products. In the second half of fiscal 2020, demand for temperature sensing and fever detection applications was accelerated by COVID-19. These increases were partially offset by decreases in other areas, such as the defense market.

Revenue generated by PMO products was approximately $14.6 million for fiscal 2020, an increase of 4%, as compared to the prior fiscal year. The increase in revenue is primarily attributable to a significant increase in sales to customers in the telecommunications market, as well as the medical market. These increases were partially offset decreases in sales to customers in the commercial market and also a decrease in sales through catalog and distributors. The decrease in catalog and distribution sales is primarily due to the impact of COVID-19 on colleges and universities.

Revenue generated by specialty products was approximately $2.3 million in the fiscal 2020, a decrease of approximately 4% as compared to fiscal 2019. This decrease is primarily related to orders for custom products in fiscal 2019 that did not recur in fiscal 2020, partially offset by an increase in NRE revenue during fiscal 2020 related to new projects for customers in the medical and commercial markets.

Cost of Sales and Gross Margin:
Gross margin for fiscal 2020 was approximately $13.8 million, an increase of 11%, as compared to approximately $12.5 million in fiscal 2019. Total cost of sales was approximately $21.1 million for fiscal 2020, compared to $21.2 million for fiscal 2019, a decrease of less than 1%. This decrease was achieved amid a 4% increase in revenue. Gross margin as a percentage of revenue was 40% for fiscal 2020, compared to 37% for the prior fiscal year. The improvement in gross margin reflects improvements made in the second, third and fourth quarters of fiscal 2020, after several factors negatively impacted the first quarter of fiscal 2020. First, gross margins for our PMO products were negatively impacted during the first quarter of fiscal 2020 by higher duties and freight charges resulting from increased tariffs between the U.S. and China beginning in June 2019. These additional costs increased cost of sales for the first quarter of fiscal 2020; however, these costs were mitigated in the second quarter by the strategies we implemented during the first quarter. Second, gross margins for infrared products were impacted by yield issues related to our BD6 products, which contributed to higher costs during the first quarter of fiscal 2020. Yields improved significantly during the second quarter of fiscal 2020 as a result of actions taken early in the second quarter. Volumes continue to increase for our BD6-based infrared molded products, and we continue to work toward converting germanium-based diamond-turned infrared products to our BD6 material, which we expect will continue to improve our infrared margins over time. The gross margin improvement for fiscal 2020, as compared to fiscal 2019, also reflects our improved cost structure and operating performance following the completion of the Irvington Facility relocation in June 2019.

Selling, General and Administrative:
For fiscal 2020, Selling, General and Administrative (“SG&A”) costs were approximately $9.0 million, a decrease of approximately $1.5 million, or 15%, as compared to the prior fiscal year. SG&A for fiscal 2019 included approximately $1.2 million of non-recurring expenses related to the relocation of the Irvington Facility to our existing Orlando Facility and Riga Facility. Fiscal 2020 reflects savings from the absence of these non-recurring costs, as well as reduced personnel and overhead costs resulting from the restructuring associated with the relocation of the Irvington Facility. Fiscal 2020 also reflects cost savings associated with the reduction in travel due to COVID-19.

New Product Development:
New product development costs were approximately $1.7 million in fiscal 2020, a decrease of approximately 15%, as compared to approximately $2.0 million in the prior fiscal year. This decrease was primarily due to the restructuring of personnel from product development to our newly created product management function, for which expenses are now included in SG&A. The decrease in personnel costs was partially offset by increases in patent expenses incurred during the first half of fiscal 2020.

Other Income (Expense):
Interest expense was approximately $339,000, compared to approximately $697,000 in the prior fiscal year. The decrease in interest expense is primarily due to more favorable terms associated with a Loan Agreement (the "Loan Agreement") with BankUnited, N.A. ("BankUnited") entered into during the third quarter of fiscal 2019 for (i) a revolving line of credit up to a maximum amount of $2 million (the "Bank United Revolving Line"), (ii) a term loan in the amount of approximately $5.8 million ("BankUnited Term Loan"), and (iii) a non-revolving guidance line of credit up to a maximum amount of $10 million (the "Guidance Line" and, together with the BankUnited Revolving Line and BankUnited Term Loan, the "BankUnited Loans"), as well as the recent decrease in interest rates. Interest expense for the third quarter of fiscal 2019 also included non-recurring costs associated with the previous term loan upon refinancing, including the write-off of previously unamortized debt costs.

Other expense, net, was approximately $175,000 in for fiscal 2020, compared to approximately $388,000 in fiscal 2019, primarily resulting from net losses on foreign exchange transactions. 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 2020, we incurred net foreign currency transaction losses of approximately $214,000, compared to $436,000 for fiscal 2019.

Income Taxes:
During the fiscal 2020, we recorded income tax expense of $764,000, compared to $455,000 in fiscal 2019, primarily related to income taxes from our operations in China. Income taxes for fiscal 2020 also included Chinese withholding taxes of $200,000 associated with the intercompany dividend declared by LPOIZ during the second quarter. While this repatriation transaction resulted 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. 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.

Net Income (Loss):
Net income for fiscal 2020 was approximately $867,000, or $0.03 basic and diluted earnings per share, compared to a net loss of approximately $2.7 million, or $0.10 basic and diluted loss per share, for fiscal 2019. The increase in net income for fiscal 2020, as compared to fiscal 2019, is primarily attributable to a $3.3 million improvement in operating income resulting from higher revenues and gross margin, and lower operating expenses, coupled with a decrease in interest expense of approximately $358,000. These improvements were partially offset by an unfavorable difference of $309,000 in the provision for income taxes.

Weighted-average common stock shares outstanding were 25,853,419 and 27,469,845 basic and diluted, respectively, in fiscal 2020, compared to 25,794,669, for both basic and diluted, in fiscal 2019. The increase in the weighted-average basic common stock shares was due the issuance of shares of Class A common stock under the 2014 Employee Stock Purchase Plan ("ESPP") and upon the exercises of stock options and restricted stock units ("RSUs"). Potential dilutive shares were excluded from the calculation of diluted shares for fiscal 2019, as their effects would have been anti-dilutive due to the net loss in that period.

Liquidity and Capital Resources

At June 30, 2020, we had working capital of approximately $13.9 million and total cash and cash equivalents of approximately $5.4 million. Greater than 50% of our total cash and cash equivalents 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 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 2020, we repatriated approximately $2 million from LPOIZ. Based on retained earnings as of December 31, 2019, the end of the prior statutory tax year, LPOIZ had an additional $4.8 million available and LPOI did not have any earnings available for repatriation. Based on our previous intent, we had not historically provided for future Chinese withholding taxes on the related earnings. However, during fiscal 2020 we began to accrue for these taxes on the portion of earnings that we intend to repatriate.

Loans payable as of June 30, 2020 consisted of the BankUnited Term Loan and the BankUnited Revolving Line. Details of the BankUnited Loans are as follows:

BankUnited Loans

On February 26, 2019, we entered into the Loan Agreement with BankUnited for the BankUnited Loans. On May 6, 2019, we entered into that certain First Amendment to Loan Agreement, effective February 26, 2019, with BankUnited (the “Amendment” and, together with the Loan Agreement, the “Amended Loan Agreement”). Our obligations under the Amended Loan Agreement are collateralized by a first priority security interest (subject to permitted liens) in all of our assets and the assets of our U.S. subsidiaries, GelTech, Inc. (“GelTech”) and ISP, pursuant to a Security Agreement granted by GelTech, ISP, and us in favor of BankUnited. Our equity interests in, and the assets of, our foreign subsidiaries are excluded from the security interest.

BankUnited Revolving Line

Amounts borrowed under the BankUnited Revolving Line may be repaid and re-borrowed at any time prior to February 26, 2022, at which time all amounts will be immediately due and payable. The advances under the BankUnited Revolving Line bear interest, on the outstanding daily balance, at a per annum rate equal to 2.75% above the 30-day LIBOR. Interest payments are due and payable, in arrears, on the first day of each month. As of June 30, 2020, the applicable interest rate was 2.92% and we had outstanding borrowings of $400,000 on the BankUnited Revolving Line.

BankUnited Term Loan

Pursuant to the Amended Loan Agreement, BankUnited advanced us $5,813,500 to satisfy in full the amounts owed to our previous lender for financing related to the acquisition of ISP, and to pay the fees and expenses incurred in connection with closing of the BankUnited Loans. The BankUnited Term Loan is for a 5-year term, but co-terminus with the BankUnited Revolving Line should the BankUnited Revolving Line not be renewed beyond February 22, 2022. Management expects the BankUnited revolving line to be renewed. The BankUnited Term Loan bears interest at a per annum rate equal to 2.75% above the 30-day LIBOR. Equal monthly principal payments of $48,445.83, plus accrued interest, are due and payable, in arrears, on the first day of each month during the term. Upon maturity, all principal and interest shall be immediately due and payable. As of June 30, 2020, the applicable interest rate was 2.92% and the outstanding balance on the BankUnited Term Loan was approximately $5.1 million.

Guidance Line

Pursuant to the Amended Loan Agreement, BankUnited, in its sole discretion, may make loan advances to us under the Guidance Line up to a maximum aggregate principal amount outstanding not to exceed $10,000,000, which proceeds will be used for capital expenditures and approved business acquisitions. Such advances must be in minimum amounts of $1,000,000 for acquisitions and $500,000 for capital expenditures, and will be limited to 80% of cost or as otherwise determined by BankUnited. Amounts borrowed under the Guidance Line may not re-borrowed. The advances under the Guidance Line bear interest, on the outstanding daily balance, at a per annum rate equal to 2.75% above the 30-day LIBOR. Interest payments are due and payable, in arrears, on the first day of each month. On each anniversary of the Amended Loan Agreement, monthly principal payments become payable, amortized based on a ten-year term. There were no amounts outstanding under the Guidance Line at June 30, 2020.

General Terms

The Amended Loan Agreement contains customary covenants, including, but not limited to certain financial covenants. We must maintain a fixed charge coverage ratio of 1.25 to 1.00 and a total leverage ratio of 4.00 to 1.00. As of June 30, 2020, we were in compliance with all required covenants.

For additional information regarding the BankUnited Loans, see Note 17, *Loans Payable*, to the Notes to the Consolidated Financial Statements to this Annual Report on Form 10-K.

We believe we have adequate financial resources to sustain our current operations in the coming year. We have established milestones that will be tracked to ensure that as funds are expended we are achieving results before additional funds are committed. We anticipate sales growth in future years, primarily from infrared products. We structured our sales team to enhance our incremental organic growth position for our core aspheric lens business, prime our operations for the anticipated high growth of our new infrared products, and allow for the integration of strategic acquisitions.

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 the BankUnited Term Loan and the BankUnited Revolving Line. 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. We will also 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 exploring strategic options for the sale of the Company, 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 – Financings:
Net cash used in financing activities was approximately $622,000 in fiscal 2020, compared to $1.4 million in fiscal 2019. In fiscal 2020, net repayments on debt and finance leases were $669,000, compared to $1.5 million net repayments on debt and capital leases in fiscal 2019. These repayments were offset by net proceeds from the ESPP and from the exercise of stock options totaling approximately $47,000 and $52,000 for fiscal 2020 and 2019, respectively.

Cash Flows – Operating:
Cash flow provided by operations was approximately $3.7 million for fiscal 2020, compared to approximately $411,000 for fiscal 2019. The increase in cash flow from operations is primarily due to the increase in net income, as well as an improvement in accounts receivable. In fiscal 2020, accounts receivable remained substantially unchanged, compared to fiscal 2019, despite the increase in sales. Similar to fiscal 2019, the increase in inventory in fiscal 2020 was primarily to support the growth in sales of infrared products, particularly as related to our new BD6-based product line.

We anticipate continued improvement in our cash flows provided by operations in future years, 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 sales and marketing and new product development costs.

Cash Flows – Investing:
During fiscal 2020, we expended approximately $2.4 million for capital equipment, as compared to approximately $1.9 million during fiscal 2019. In fiscal 2019, we also initiated capital leases in the amount of approximately $530,000 for manufacturing equipment. Our capital expenditures during fiscal 2020 were primarily related to continued expansion of our infrared glass capacity, increasing coating capacity and capabilities, and adding press capacity. During fiscal 2019, our capital expenditures were related to upgrades of equipment and facilities in conjunction with relocating the Irvington Facility, as well as expanding our production capacity for infrared glass, particularly our new BD6 material.

We anticipate a similar level of capital expenditures during fiscal 2021; however, the total amount expended will depend on sales growth opportunities and circumstances.

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 designs that we call “engineered assemblies.” This is followed by “sampling” 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, as compared to the turns business, which is unpredictable and uneven. This annuity revenue stream can also generate low-cost, high-volume type orders. 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 (for example, in the case of molded optics, this may be volumes over one million pieces per year) they begin to work seriously to reduce costs – which often leads them to turn to larger or overseas producers, 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 merchant market, a market that we believe is underserved in this area of service offering. 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 a critical component from foreign merchant production 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.

Our Key Performance Indicators:

Usually on a weekly basis, management reviews a number of 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 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. 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 dollars and units by product group;
- inventory levels;
- accounts receivable levels and quality; 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 our 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 define our "12-month backlog" as that which is requested by the customer for delivery within one year and which is reasonably likely 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 12-month backlog is better for us.

Our 12-month backlog grew 11% in comparison to the prior year, while we also increased our sales by 4%, compared to the prior year, maintaining our strong booking performance. Our 12-month backlog as of June 30, 2020 was approximately $19.1 million, compared to $17.1 million as of June 30, 2019. Backlog growth rates for fiscal 2020 and 2019 are:

Quarter	Backlog ($ 000)	Change From Prior Year End	Change From Prior Quarter End
Q1 2019	$ 13,994	9%	9%
Q2 2019	$ 18,145	41%	30%
Q3 2019	$ 17,137	34%	-6%
Q4 2019	$ 17,121	33%	0%
Q1 2020	$ 15,390	-10%	-10%
Q2 2020	$ 19,095	12%	24%
Q3 2020	$ 20,012	17%	5%
Q4 2020	$ 19,078	11%	-5%

The increase in our 12-month backlog from the first quarter to the second quarter of both fiscal 2020 and 2019 was largely due to the renewal of a large annual contract during the second quarter of the respective fiscal year, which we began shipping against during the third quarter of the respective fiscal year. The timing of this renewal is similar to the prior fiscal year. During the fourth quarter of fiscal 2019, we booked new annual contracts for molded infrared products. These annual contracts are expected to renew in fiscal 2021; however, the timing of each of these annual contract renewals may vary, and may substantially increase backlog levels at the time the orders are received, and backlog will subsequently be drawn down as shipments are made against these orders. During the third quarter of fiscal 2020, we announced several new purchase orders for thermal imaging lens assemblies used in medical and sensing applications in the Asian market, which have contributed to the growth in backlog.

We have experienced strong demand for infrared products used in the industrial, defense and first responder sectors. Recently, demand for medical applications, including fever detection, has driven some of the increased demand for infrared products. Demand for infrared products is being further fueled by interest in lenses made with our new BD6 material. We expect to maintain moderate growth in our visible PMO product group by continuing to diversify and offer new applications, with a cost competitive structure. Over the past several years, we have broadened our capabilities to include additional glass types and the ability to make much larger lenses, providing long-term opportunities for our technology roadmap and market share expansion. Based on our backlog and recent quote activity, we expect increases in revenue from sales of both molded and turned infrared products and visible PMO products as we enter fiscal 2021.

Revenue Dollars and Units by Product Group:

The following table sets forth revenue dollars and units by our three product groups for the three and twelve months ended June 30, 2020 and 2019:

	(unaudited) Three Months Ended June 30,		Year Ended June 30,		Quarter	Year-to-date
	2020	2019	2020	2019	% Change	% Change
Revenue						
PMO	$ 3,893,162	$ 3,508,046	$14,639,687	$14,098,157	11%	4%
Infrared Products	4,793,246	4,746,849	18,052,856	17,271,590	1%	5%
Specialty Products	420,732	490,383	2,275,420	2,379,341	-14%	-4%
Total revenue	$ 9,107,140	$ 8,745,278	$34,967,963	$33,749,088	4%	4%
Units						
PMO	1,050,668	641,006	3,198,672	2,287,631	64%	40%
Infrared Products	150,194	87,428	384,344	232,081	72%	66%
Specialty Products	7,876	17,383	41,443	69,554	-55%	-40%
Total units	1,208,738	745,817	3,624,459	2,589,266	62%	40%

Three months ended June 30, 2020 compared to three months ended June 30, 2019

Our revenue increased by 4% in the fourth quarter of fiscal 2020, as compared to the same quarter of the prior fiscal year, primarily as a result of an increase in demand for PMO products, with a slight increase in sales of infrared products.

Revenue from the PMO product group for the fourth quarter of fiscal 2020 was $3.9 million, an increase of 11%, as compared to the same quarter of the prior fiscal year. The increase in revenue is primarily attributed to increases in sales to customers in the telecommunications market, partially offset by a decrease in sales through catalog and distributors. The decrease in catalog and distribution sales is primarily due to the impact of COVID-19 on colleges and universities. Sales of PMO units increased by 64%, as compared to the prior year period, however, average selling prices decreased 32%. The decrease in average selling prices is due to a significant increase in telecommunications products unit sales, which typically have higher volumes and lower average selling prices. Revenue from sales of telecommunications products increased by approximately 58%, while unit volumes for these products nearly doubled for the fourth quarter of fiscal 2020, as compared to the prior year period.

Revenue generated by the infrared product group for the fourth quarter of fiscal 2020 was $4.8 million, an increase of 1%, as compared to same quarter of the prior fiscal year. During the fourth quarter of fiscal 2020, sales of BD6-based infrared products increased significantly, particularly for temperature sensing applications, demand for which has been accelerated by COVID-19. This increase was offset by a decrease in sales of diamond-turned infrared products, particularly in the defense market. The decrease in sales of diamond-turned infrared products was also partially due to the timing of order shipments against a large-volume annual contract, for which shipments were higher in the fourth quarter of the prior fiscal year. Molded infrared products are higher in volume and lower in average selling prices than diamond-turned infrared products. Due to the higher mix of molded infrared products sold during the fourth quarter of fiscal 2020, sales of infrared units increased by 72%, as compared to the prior year period, and average selling prices decreased 41%.

Our specialty products revenue decreased by approximately $70,000, or 14%, in the fourth quarter of fiscal 2020, as compared to the same quarter of the prior fiscal year. This decrease is primarily related to the timing of orders for custom products in the fourth quarter of the prior fiscal year, which did not recur in the fourth quarter of fiscal 2020.

Year ended June 30, 2020 compared to year ended June 30, 2019

Our revenue increased by approximately $1.2 million, or 4%, for fiscal 2020, as compared to fiscal 2019, with increases in both infrared and PMO product sales.

Revenue from the PMO product group increased for fiscal 2020 was $14.6 million, an increase of 4%, as compared to fiscal 2019. The increase in revenue is primarily attributed to a significant increase in sales to customers in the telecommunications market, as well as the medical market. These increases were partially offset decreases in sales to customers in the commercial market and also a decrease in sales through catalog and distributors. The decrease in catalog and distribution sales is primarily due to the impact of COVID-19 on colleges and universities. Sales of PMO units increased by 40%, as compared to the prior fiscal year, however, average selling prices decreased 26%, due to the significant increase in telecommunications products sales, which typically have higher volumes and lower average selling prices. The unit volume for telecommunications products for fiscal 2020 more than doubled, as compared to the prior fiscal year.

Revenue generated by the infrared product group for fiscal 2020 was $18.1 million, an increase of approximately 5%, as compared to the prior fiscal year. For fiscal 2020, sales of BD6-based infrared products increased significantly, for both thermal imaging and temperature sensing products. Industrial applications, firefighting cameras and other public safety applications continue to be significant drivers of the demand for infrared products, including thermal imaging assemblies. More recently, we have seen an increase in demand for medical and temperature sensing applications, such as fever detection. Demand for temperature sensing applications have been accelerated by COVID-19. This increase was partially offset by a decrease in sales of diamond-turned infrared products, particularly in the defense market. The decrease in sales of diamond-turned infrared products was also partially due to the timing of order shipments against a large-volume annual contract, for which shipments were higher in the prior fiscal year. Molded infrared products are higher in volume and lower in average selling prices than diamond-turned infrared products. Accordingly, during fiscal 2020, sales of infrared units increased by 66%, as compared to the prior fiscal year, and average selling prices decreased 37%.

In fiscal 2020, our specialty products revenue decreased by $104,000, or 4%, as compared to prior year period. This decrease is primarily related to orders for custom products in fiscal 2019 that did not recur in fiscal 2020, partially offset by an increase in NRE revenue during fiscal 2020 related to new projects for customers in the medical and commercial markets.

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)
Q4-2020	6/30/2020	146
Q3-2020	3/31/2020	160
Q2-2020	12/31/2019	121
Q1-2020	9/30/2019	142
Fiscal 2020 average		**132**
Q4-2019	6/30/2019	119
Q3-2019	3/31/2019	122
Q2-2019	12/31/2018	117
Q1-2019	9/30/2018	106
Fiscal 2019 average		**116**

Our average DCSI for fiscal 2020 was 132, compared to 116 for fiscal 2019. The increase in DCSI is driven in part by strategic buys of certain raw materials to reduce lead times and meet increasing demand for infrared glass. For the second half of 2020, the increase in inventory was also driven by the shift in customer order activity due to COVID-19, where we were given short notice to delay shipments of some products and accelerate the manufacturing and shipment of other products. As we adjust to these changes in demand, and as we continue to see increasing demand for both infrared and PMO products, we expect DCSI to return to a range of between 110 to 120.

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)
Q4-2020	6/30/2020	62
Q3-2020	3/31/2020	66
Q2-2020	12/31/2019	70
Q1-2020	9/30/2019	67
Fiscal 2020 average		**66**
Q4-2019	6/30/2019	65
Q3-2019	3/31/2019	68
Q2-2019	12/31/2018	66
Q1-2019	9/30/2018	56
Fiscal 2019 average		**64**

Our average DSO for fiscal 2020 was 66, compared to 64 for fiscal 2019. The improvement in the second half of fiscal 2020 reflects our increased focus on collections, and tightening of payment terms policies. We strive to have a DSO no higher than 65.

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."

The following table adjusts net income to EBITDA for the three and twelve months ended June 30, 2020 and 2019:

	(unaudited) Quarter Ended:		Year Ended:	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Net income (loss)	$ 656,952	$ (1,761,690)	$ 866,929	$ (2,680,323)
Depreciation and amortization	837,123	923,195	3,424,438	3,464,156
Income tax provision	90,442	495,699	763,998	455,206
Interest expense	66,184	123,578	339,446	697,113
EBITDA	$ 1,650,701	$ (219,218)	$ 5,394,811	$ 1,936,152
% of revenue	18%	-3%	15%	6%

Our EBITDA for the quarter ended June 30, 2020 was approximately $1.7 million, compared to a loss of $219,000 for the quarter ended June 30, 2019. The improvement in EBITDA is primarily the result of the increase in sales and gross margin, and a decrease in operating expenses for the fourth quarter of fiscal 2020, as compared to the same period of the prior fiscal year. The reduction in operating expenses reflects the absence of approximately $845,000 in restructuring costs related to the relocation of the Irvington Facility during the fourth quarter of fiscal 2019.

Our EBITDA for fiscal 2020 was approximately $5.4 million, compared to approximately $1.9 million for fiscal 2019. The improvement in EBITDA is primarily the result of the increase in sales and gross margin, and a decrease in operating expenses for fiscal 2020, as compared to fiscal 2019. The reduction in operating expenses reflects the absence of approximately $1.2 million in restructuring costs related to the relocation of the Irvington Facility, which was completed during fiscal 2019.

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 of Directors (the "Board"), and the Board has reviewed our disclosure relating to critical accounting policies and estimates in this prospectus. The critical accounting policies used by management and the methodology for its estimates and assumptions are as follows:

Allowance for accounts receivable is calculated by taking 100% of the total of invoices that are over 90 days past due from the due date and 10% of the total of invoices that are over 60 days past due from the due date for U.S.- and Latvia-based accounts and 100% on invoices that are over 120 days past due for China-based accounts without an agreed upon payment plan. Accounts receivable are customer obligations due under normal trade terms. We perform continuing credit evaluations of our customers' financial condition. 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.

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, or items for which we have more than a two-year supply. 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. 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 value-added taxes ("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 intangible assets acquired in a business combination are recognized at fair value using generally accepted valuation methods appropriate for the type of intangible asset and reported separately from goodwill. 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. Definite-lived 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.

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 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, 2020, we carried out an evaluation, under the supervision and with the participation of members of our management, including our Chief Executive Officer (“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, 2020, 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, 2020 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 Securities and Exchange Commission (the “SEC”) that permit us to provide only management’s report in this Annual Report.

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. There have not been any 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, 2020 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2021 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2020.

Item 11. Executive Compensation.

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2021 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2020.

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

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2021 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2020, with the exception of those items listed below.

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 2020:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise and grant price of outstanding options, warrants and rights	Number of securities remaining available for future issuance
Equity compensation plans approved by security holders	3,262,426	$ 2.09	930,326
Equity compensation plans not approved by security holders	—	—	—

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

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2021 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2020.

Item 14. Principal Accountant Fees and Services.

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2021 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2020.

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

(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.*
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.*
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.*
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.

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 references thereto.
3.2.1	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 3, 2015, and is incorporated herein by reference thereto.
3.2.2	First Amendment to 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 September 21, 2017, and is incorporated herein by reference thereto.
4.1	Rights Agreement dated May 1, 1998, between LightPath Technologies, Inc. and Continental Stock Transfer & Trust Company, as Rights Agent, which was filed as Exhibit 1 to Registration Statement on Form 8-A filed with the Securities and Exchange Commission on April 28, 1998, and is incorporated herein by reference thereto.
4.2	First Amendment to Rights Agreement dated February 25, 2008 between LightPath Technologies, Inc. and Continental Stock Transfer & Trust Company, as Rights Agent, which was filed as Exhibit 2 to Amendment No. 1 to Form 8-A filed with the Securities and Exchange Commission on February 25, 2008, and is incorporated herein by reference thereto.
4.3	Second Amendment to Rights Agreement dated January 30, 2018 between LightPath Technologies, Inc. and Continental Stock Transfer & Trust Company, as Rights Agent, which was filed as Exhibit 4.1 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.
4.4	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	Employee Letter Agreement dated June 12, 2008, between LightPath Technologies, Inc., and J. James Gaynor, which was filed as Exhibit 99.1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on June 17, 2008, and is incorporated herein by reference thereto.
10.3	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.
10.4	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.
10.5	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.
10.6	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.
10.7	Offer Letter between LightPath Technologies, Inc. and Donald O. Retreage, Jr., dated May 31, 2018, which was filed as Exhibit 10.1 to our Currently Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on June 5, 2018, and is incorporated herein by reference thereto.
10.8	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.
10.9	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.
10.10	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.
10.11	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.
10.12	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.
10.13	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.
10.14	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.
10.15	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.

10.16	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.
10.27	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.
10.28	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.
10.29	Separation Agreement between the Company and Dorothy M. Cipolla, effective as of July 27, 2019, which was filed as Exhibit 10.1 to Amendment No. 1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on August 26, 2019, and is incorporated herein by reference thereto.
10.30	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.
10.31	Amendment to Employee Letter Agreement dated March 13, 2020, between LightPath Technologies, Inc., and J. James Gaynor.*
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.
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*
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*

*filed herewith

Item 16. Form 10-K Summary.

None.

LightPath Technologies, Inc.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders
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, 2020 and 2019, and the related consolidated statements of comprehensive income (loss), changes in stockholders’ equity, and cash flows for each of the years ended June 30, 2020 and 2019, 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, 2020 and 2019, and the results of its operations and its cash flows for each of the years ended June 30, 2020 and 2019, 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 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 a 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.

/s/ MSL, P.A.

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

Orlando, Florida
September 10, 2020

LIGHTPATH TECHNOLOGIES, INC.

Consolidated Balance Sheets

Assets	June 30, 2020	June 30, 2019
Current assets:		
Cash and cash equivalents	$ 5,387,388	$ 4,604,701
Trade accounts receivable, net of allowance of $9,917 and $29,406	6,188,726	6,210,831
Inventories, net	8,984,482	7,684,527
Other receivables	132,051	353,695
Prepaid expenses and other assets	565,181	754,640
Total current assets	21,257,828	19,608,394
Property and equipment, net	11,799,061	11,731,084
Operating lease right-of-use assets	1,220,430	—
Intangible assets, net	6,707,964	7,837,306
Goodwill	5,854,905	5,854,905
Deferred tax assets, net	659,000	652,000
Other assets	75,730	289,491
Total assets	$ 47,574,918	$ 45,973,180
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,558,638	$ 2,227,768
Accrued liabilities	992,221	1,338,912
Accrued payroll and benefits	1,827,740	1,730,658
Operating lease liabilities, current	765,422	—
Deferred rent, current portion	—	72,151
Loans payable, current portion	981,350	581,350
Finance lease obligation, current portion	278,040	404,424
Total current liabilities	7,403,411	6,355,263
Finance lease obligation, less current portion	279,435	640,284
Operating lease liabilities, noncurrent	887,766	—
Deferred rent, noncurrent	—	518,364
Loans payable, less current portion	4,437,365	5,000,143
Total liabilities	13,007,977	12,514,054
Commitments and Contingencies		
Stockholders' equity:		
Preferred stock: Series D, $.01 par value, voting;		
500,000 shares authorized; none issued and outstanding	—	—
Common stock: Class A, $.01 par value, voting;		
44,500,000 shares authorized; 25,891,885 and 25,813,895		
shares issued and outstanding	258,919	258,139
Additional paid-in capital	230,634,056	230,321,324
Accumulated other comprehensive income	735,892	808,518
Accumulated deficit	(197,061,926)	(197,928,855)
Total stockholders' equity	34,566,941	33,459,126
Total liabilities and stockholders' equity	$ 47,574,918	$ 45,973,180

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

LIGHTPATH TECHNOLOGIES, INC.

Consolidated Statements of Comprehensive Income (Loss)

	Year Ended June 30,	
	2020	2019
Revenue, net	$ 34,967,963	$ 33,749,088
Cost of sales	21,125,464	21,230,168
Gross margin	13,842,499	12,518,920
Operating expenses:		
Selling, general and administrative	8,961,150	10,498,651
New product development	1,714,077	2,016,615
Amortization of intangibles	1,129,341	1,220,664
Gain on disposal of property and equipment	(107,280)	(77,047)
Total operating expenses	11,697,288	13,658,883
Operating income (loss)	2,145,211	(1,139,963)
Other income (expense):		
Interest expense, net	(339,446)	(697,113)
Other expense, net	(174,838)	(388,041)
Total other expense, net	(514,284)	(1,085,154)
Income (loss) before income taxes	1,630,927	(2,225,117)
Income tax provision	763,998	455,206
Net income (loss)	$ 866,929	$ (2,680,323)
Foreign currency translation adjustment	(72,626)	335,010
Comprehensive income (loss)	$ 794,303	$ (2,345,313)
Earnings (loss) per common share (basic)	$ 0.03	$ (0.10)
Number of shares used in per share calculation (basic)	25,853,419	25,794,669
Earnings (loss) per common share (diluted)	$ 0.03	$ (0.10)
Number of shares used in per share calculation (diluted)	27,469,845	25,794,669

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

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

	Class A Common Stock Shares	Amount	Additional Paid-in Capital	Accumulated Other Comphrehensive Income	Accumulated Deficit	Total Stockholders' Equity
Balances at June 30, 2018	**25,764,544**	**$ 257,645**	**$ 229,874,823**	**$ 473,508**	**$ (195,248,532)**	**$ 35,357,444**
Issuance of common stock for:						
Employee Stock Purchase Plan	20,871	209	38,229	—	—	38,438
Exercise of stock options, net	28,480	285	13,482	—	—	13,767
Stock-based compensation on stock options & RSUs	—	—	394,790	—	—	394,790
Foreign currency translation adjustment	—	—	—	335,010	—	335,010
Net loss	—	—	—	—	(2,680,323)	(2,680,323)
Balances at June 30, 2019	**25,813,895**	**$ 258,139**	**$ 230,321,324**	**$ 808,518**	**$ (197,928,855)**	**$ 33,459,126**
Issuance of common stock for:						
Employee Stock Purchase Plan	30,537	305	24,307	—	—	24,612
Exercise of Stock Options & RSUs, net	42,453	425	21,838	—	—	22,263
Shares issued as compensation	5,000	50	6,100	—	—	6,150
Stock-based compensation on stock options & RSUs	—	—	260,487	—	—	260,487
Foreign currency translation adjustment	—	—	—	(72,626)	—	(72,626)
Net income	—	—	—	—	866,929	866,929
Balances at June 30, 2020	**25,891,885**	**$ 258,919**	**$ 230,634,056**	**$ 735,892**	**$ (197,061,926)**	**$ 34,566,941**

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

LIGHTPATH TECHNOLOGIES, INC.
Consolidated Statements of Cash Flows

	Year Ended June 30,	
	2020	2019
Cash flows from operating activities:		
Net income (loss)	$ 866,929	$ (2,680,323)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation and amortization	3,424,438	3,464,156
Interest from amortization of debt costs	18,572	117,261
Gain on disposal of property and equipment	(107,280)	(77,047)
Stock-based compensation on stock options & RSUs, net	250,737	394,790
Provision for doubtful accounts receivable	18,826	(6,658)
Change in operating lease liabilities	(157,757)	370,701
Inventory write-offs to allowance	127,872	125,234
Deferred tax benefit	(7,000)	(28,000)
Changes in operating assets and liabilities:		
Trade accounts receivable	3,279	(833,665)
Other receivables	221,644	(306,348)
Inventories	(1,427,827)	(1,405,020)
Prepaid expenses and other assets	403,220	392,925
Accounts payable and accrued liabilities	97,160	883,179
Net cash provided by operating activities	3,732,813	411,185
Cash flows from investing activities:		
Purchase of property and equipment	(2,442,779)	(1,931,835)
Proceeds from sale of equipment	186,986	683,250
Net cash used in investing activities	(2,255,793)	(1,248,585)
Cash flows from financing activities:		
Proceeds from exercise of stock options	22,263	13,767
Proceeds from sale of common stock from Employee Stock Purchase Plan	24,612	38,438
Loan costs	—	(92,860)
Borrowings on loan payable	400,000	5,813,500
Payments on loan payable	(581,350)	(6,831,503)
Repayment of finance lease obligations	(487,233)	—
Payments on capital lease obligations	—	(342,871)
Net cash used in financing activities	(621,708)	(1,401,529)
Effect of exchange rate on cash and cash equivalents	(72,625)	335,010
Change in cash and cash equivalents and restricted cash	782,687	(1,903,919)
Cash and cash equivalents and restricted cash, beginning of period	4,604,701	6,508,620
Cash and cash equivalents and restricted cash, end of period	$ 5,387,388	$ 4,604,701
Supplemental disclosure of cash flow information:		
Interest paid in cash	$ 330,910	$ 500,985
Income taxes paid	$ 526,225	$ 406,526
Supplemental disclosure of non-cash investing & financing activities:		
Purchase of equipment through capital lease arrangements	—	$ 530,253
Landlord credits for leasehold improvements	—	$ 309,450

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

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. On April 14, 2000, the Company acquired Horizon Photonics, Inc. ("Horizon"). On September 20, 2000, the Company acquired Geltech, Inc. ("Geltech"). The Company completed its initial public offering during fiscal 1996. 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. 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").

LightPath is a manufacturer of optical components and higher-level assemblies, including precision molded glass aspheric optics, molded and diamond-turned infrared aspheric lenses, and other optical components used to produce products that manipulate light. LightPath designs, develops, manufactures, and distributes optical components and assemblies utilizing advanced optical manufacturing processes. LightPath products are incorporated into a variety of applications by customers in many industries, including defense products, medical devices, laser aided industrial tools, automotive safety applications, barcode scanners, optical data storage, hybrid fiber coax datacom, telecommunications, machine vision and sensors, among others.

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. The Company did not have any restricted cash as of June 30, 2020 or 2019.

Allowance for accounts receivable is calculated by taking 100% of the total of invoices that are over 90 days past due from the due date and 10% of the total of invoices that are over 60 days past due from the due date for U.S.- and Latvia-based accounts and 100% of invoices that are over 120 days past due for Chinese-based accounts. Accounts receivable are customer obligations due under normal trade terms. The Company performs continuing credit evaluations of its customers' financial condition. 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.

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, (ii) items that have not been purchased in two years, or (iii) items of which we have more than a two-year supply. 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. 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 and primarily relates to manufacturing equipment.

Long-lived assets, such as property, plant, and equipment and purchased intangibles 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, 2020 and 2019. 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 Intangible Assets acquired in a business combination are recognized at fair value using generally accepted valuation methods appropriate for the type of intangible asset and reported separately from goodwill. 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. Definite-lived 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.

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 goodwill impairment during the fiscal years ended June 30, 2020 or 2019.

Leases. During the first quarter of fiscal 2020, the Company adopted ASU No. 2016-02, *Leases (Topic 842)* ("ASC Topic 842"). This guidance requires an entity to recognize lease liabilities and a right-of-use asset for all leases on the balance sheet and to disclose key information about the entity's leasing arrangements. The Company adopted this standard as of July 1, 2019, using the modified retrospective transition method by applying the new standard to all leases existing at the date of initial application and not restating comparative periods. The Company elected the package of practical expedients permitted under the transition guidance, which allowed the Company to carryforward historical lease classification, and not reassess (i) whether a contract was or contained a lease, and (ii) initial direct costs for any leases that existed prior to July 1, 2019. The Company also elected to combine lease and non-lease components and not to record leases with an initial term of 12 months or less on the Consolidated Balance Sheet. As a result of adopting ASC Topic 842 on July 1, 2019, the Company recognized operating lease right-of-use assets of $1.7 million and corresponding operating lease liabilities of $2.3 million from existing leases on the Company's Consolidated Balance Sheet. Operating lease liabilities include amounts previously classified as "Deferred Rent" in the Consolidated Balance Sheet as of June 30, 2019. See Note 13, *Leases*, for further details. The adoption of ASC Topic 842 had no impact on the Company's Consolidated Statement of Comprehensive Income (Loss) or Consolidated Statement of Cash Flows.

Deferred rent related to certain of the Company's operating leases, prior to the adoption of ASC Topic 842. Rent expense for operating leases containing predetermined fixed increases of the base rental rate during the lease term was being recognized on a straight-line basis over the lease term, as well as applicable leasehold improvement incentives provided by the landlord. Through June 30, 2019, the Company recorded the difference between the amounts charged to operations and amounts payable under the leases as deferred rent in the accompanying Consolidated Balance Sheet as of June 30, 2019.

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 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 totaled approximately $5.4 million at June 30, 2020. Of this amount, greater 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. 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 2020, we repatriated approximately $2 million from LPOIZ. Based on retained earnings as of December 31, 2019, the end of the prior statutory tax year, LPOIZ had an additional $4.8 million available and LPOIZ did not have any funds available for repatriation. Based on our previous intent, we had not historically provided for future Chinese withholding taxes on the related earnings. However, during fiscal 2020 we began to accrue for these taxes on the portion of earnings that we intend to repatriate.

Beginning in fiscal 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 3, *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 a VAT receivable, net of payables, in the accompanying Consolidated Financial Statements.

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.

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 certain on-balance-sheet financial instruments 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 17, *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 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 has two components, net income, and other comprehensive income, and is included on the Consolidated Statements of Comprehensive Income. 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 business segment, no additional reporting is required.

Reclassifications. The classification of certain prior-year amounts have been adjusted in our Consolidated Financial Statements to conform to current year classifications. An accrual of $467,000 related to the lease for ISP Optics Corporation's ("ISP") Irvington, New York facility (the "Irvington Facility") was reclassified from "Deferred rent, current portion" to "Accrued liabilities" in the Consolidated Balance Sheet as of June 30, 2019. See Note 13, *Leases*, and Note 18, *Restructuring*, for further information. In addition, upon adoption of ASC Topic 842, amounts previously included in the line items "Capital lease obligation, current portion" and "Capital lease obligation, less current portion" are now included in the line items "Finance lease obligation, current portion" and "Finance lease obligation, less current portion", respectively, in the Consolidated Balance Sheet as of June 30, 2019.

Recent accounting pronouncements. There are new accounting pronouncements issued by the FASB that are not yet effective for the Company for the year ended June 30, 2020.

In December 2019, the FASB issued Accounting Standards Update ("ASU") 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes." The amendments in this update simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify U.S. GAAP for other areas of Topic 740 by clarifying and amending existing guidance. For public business entities, the amendments in this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. This ASU will be effective for the Company in the first quarter of fiscal year 2022. Early adoption is permitted. The Company is currently evaluating the impact of the adoption of this update on its Consolidated Financial Statements.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement (Topic 820), Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement." This ASU is intended to improve the effectiveness of disclosures in the notes to the financial statements, including (1) the development of a framework that promotes consistent decisions by the FASB about disclosure requirements and (2) the appropriate exercise of discretion by reporting entities. The amendment modifies the disclosure requirements on transferring between level 1 and level 2 and valuation processes of level 3 fair value measurements. The amendments in this update are effective for all entities for fiscal years, and interim periods within those fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. This ASU is effective for the Company in the first quarter of fiscal year 2021. The Company has assessed the preliminary impact from the adoption of this guidance and expects no impact on its Consolidated Financial Statements.

No other new accounting pronouncement recently issued or newly effective had or is expected to have a material impact on the Consolidated Financial Statements.

3. Revenue

On July 1, 2018, the Company adopted ASU 2014-9 using the modified retrospective method, which required a cumulative effect adjustment, if any, to be recorded at the date of adoption. The adoption did not have a material impact on the Company's Consolidated Financial Statements and, as a result, no changes were made to prior reporting periods presented.

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 components 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 performs 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 immaterial as of June 30, 2020 and 2019.

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 are generally short term in nature, with revenue recognized upon satisfaction of the performance obligation, and transfer of control of the agreed-upon deliverable. The Company has organized its products in three groups: precision molded optics ("PMO"), infrared, and specialty products. Revenues from product development agreements are included in specialty products. The Company's revenue by product group for the years ended June 30, 2020 and 2019 was as follows:

	Year Ended June 30,	
	2020	2019
PMO	$ 14,639,687	$ 14,098,157
Infrared Products	18,052,856	17,271,590
Specialty Products	2,275,420	2,379,341
Total revenue	$ 34,967,963	$ 33,749,088

4. Inventories, net

The components of inventories include the following:

	June 30, 2020	June 30, 2019
Raw materials	$ 3,876,955	$ 3,467,105
Work in process	2,989,070	2,288,226
Finished goods	3,134,800	2,704,471
Allowance for obsolescence	(1,016,343)	(775,275)
	$ 8,984,482	$ 7,684,527

During fiscal 2020 and 2019, the Company evaluated all allowed items and disposed of approximately $128,000 and $125,000, 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 $2.3 million and $2.1 million at June 30, 2020 and 2019, respectively.

5. Property and Equipment, net

Property and equipment consist of the following:

	Estimated Lives (Years)	June 30, 2020	June 30, 2019
Manufacturing equipment	5 - 10	$ 18,444,448	$ 17,412,136
Computer equipment and software	3 - 5	801,625	706,840
Furniture and fixtures	5	321,418	293,582
Leasehold improvements	5 - 7	2,171,388	2,074,069
Construction in progress		1,274,880	697,126
Total property and equipment		23,013,759	21,183,753
Less accumulated depreciation and amortization		(11,214,698)	(9,452,669)
Total property and equipment, net		$ 11,799,061	$ 11,731,084

During fiscal 2015, the Company extended the term of its Orlando lease and received a tenant improvement allowance from the landlord of $420,014. During fiscal 2019, the Company received a tenant improvement allowance from the landlord related to the new portion of the Orlando facility in the amount of $309,450. These allowances were used to construct improvements and were initially recorded as leasehold improvements and deferred rent liability. The balances are being amortized over the corresponding lease terms, and are included in leasehold improvements and operating lease liabilities as of June 30, 2020.

6. 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.

There were no changes in the net carrying value of goodwill during the years ended June 30, 2020 and 2019, and 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, 2020	June 30, 2019
Customer relationships	15	$ 3,590,000	$ 3,590,000
Trade secrets	8	3,272,000	3,272,000
Trademarks	8	3,814,000	3,814,000
Non-compete agreement	3	27,000	27,000
Total intangible assets		10,703,000	10,703,000
Less accumulated amortization		(3,995,036)	(2,865,694)
Total intangible assets, net		$ 6,707,964	$ 7,837,306

Future amortization of identifiable intangibles is as follows:

Fiscal year ending:	
June 30, 2021	$ 1,125,083
June 30, 2022	1,125,083
June 30, 2023	1,125,083
June 30, 2024	1,125,083
June 30, 2025 and later	2,207,632
	$ 6,707,964

7. Accounts Payable

The accounts payable balances as of June 30, 2020 and 2019 both include earned but unpaid Board of Directors' fees of approximately $91,000.

8. Stockholders' Equity

The Company's authorized capital stock consists of 55,000,000 shares, comprised of 50,000,000 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; however, in 1998, the board of directors 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 will be exercisable only if a person or group acquires twenty percent (20%) or more of the Class A common stock or announces a tender offer, the consummation of which would result in ownership by a person or group of twenty percent (20%) or more of the Class A common stock. As of the date of the filing of this Annual Report on Form 10-K, no such triggering event has occurred. If, in the future, any shares of Series D Preferred Stock are issued, the stockholders of Series D Preferred Stock are entitled to one vote for each share held; 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 50,000,000 shares of common stock authorized, the board of directors has previously designated 44,500,000 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.

9. Income Taxes

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

	Year Ended June 30,	
	2020	2019
Pretax income (loss):		
United States	$ (3,739,527)	$ (4,649,593)
Foreign	5,370,454	2,424,476
Income (loss) before income taxes	$ 1,630,927	$ (2,225,117)

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

	Year Ended June 30,	
	2020	2019
Current:		
Federal tax	$ -	$ (9,352)
State	3,047	23,423
Foreign	767,951	469,135
Total current	770,998	483,206
Deferred:		
Federal tax	4,931	21,803
State	(11,931)	(49,803)
Foreign	-	-
Total deferred	(7,000)	(28,000)
Total income tax provision	$ 763,998	$ 455,206

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,	
	2020	2019
U.S. federal statutory tax rate	21.0%	21.0%
Income tax provision reconciliation:		
Tax at statutory rate:	$ 342,495	$ (467,275)
Net foreign income subject to lower tax rate	(497,959)	(303,288)
State income taxes, net of federal benefit	(75,415)	(26,380)
Valuation allowance	344,793	652,262
IRC 965 repatriation	(206,807)	202,026
GILTI	835,101	251,869
Federal research and development and other credits	(71,962)	(84,440)
Stock-based compensation	-	3,034
Other permanent differences	(183,367)	74,099
Other, net	277,119	153,299
	$ 763,998	$ 455,206

Tax Cuts and Jobs Act

In December 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "TCJA"), which changes existing U.S. tax law and includes various provisions that are expected to affect companies. Among other things, the TCJA: (i) changes U.S. corporate tax rates, (ii) generally reduces a company's ability to utilize accumulated net operating losses, and (iii) requires the calculation of a one-time transition tax on certain foreign earnings and profits ("foreign E&P") that had not been previously repatriated.

Implementation of the TCJA required the Company to calculate a one-time transition tax on certain foreign E&P that had not been previously repatriated. In accordance with SEC Staff Accounting Bulletin No.118, the Company recognized provisional amounts for income tax effects of the TCJA that it was able to reasonably estimate. During fiscal 2018, the Company provisionally determined its foreign E&P inclusion, and anticipated that it would not owe any one-time transition tax due to utilization of U.S. net operating loss ("NOL") carryforward benefits against these earnings. During fiscal 2019, the Company completed its analysis of the TCJA, and although the Company did not owe any one-time transition tax, the deferred tax asset related to its NOL carryforwards was impacted by approximately $202,000. This amount is offset by a valuation allowance for a net impact of zero to its provision for income taxes for the year ended June 30, 2019.

On March 27, 2020, the President signed into law the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), which, among other things, is intended to provide emergency assistance to qualifying businesses and individuals. The CARES Act also suspends the limitation on the deduction of NOLs arising in taxable years beginning before January 1, 2021, permits a five-year carryback of NOLs arising in taxable years beginning after December 31, 2017 and before January 1, 2021, and generally modifies the limitation on the deduction for net interest expense to 50% of adjusted taxable income for taxable years beginning in 2019 and 2020. During fiscal 2020, as a result of the CARES Act, the Company was able to accelerate the recovery of an income tax receivable related to previously paid alternative minimum tax. The receivable amount of approximately $107,000 as of June 30, 2020 was collected in July 2020. In addition, the Company elected to utilize the payroll tax deferral under the CARES Act, resulting in cash savings of approximately $100,000, accrued as of June 30, 2020 and deferred until at least December 31, 2021.

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, 2020 and 2019, the tax rate for LPOIZ was 15%, in accordance with an incentive program for technology companies. No deferred tax provision has been recorded for China, as the effect is deemed de minimis.

In December 2019, the Company declared an intercompany dividend of $2 million from LPOIZ, payable to the Company as its parent company. Accordingly, the Company accrued and paid Chinese withholding taxes of $200,000 associated with the dividend. During fiscal 2020, LPOIZ paid to the Company $1.8 million, after the withholding taxes. Other than these withholding taxes, this intercompany dividend has no impact on the Consolidated Financial Statements. Subsequent to fiscal 2020, in July 2020 the Company declared an intercompany dividend of $3 million from LPOIZ, payable to the Company as its parent company. This dividend will be paid in installments during fiscal 2021, and the Company will incur Chinese withholding taxes totaling $300,000 on this dividend.

Historically, the Company considered unremitted earnings held by its foreign subsidiaries to be permanently reinvested. However, during fiscal 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 2020 the Company began to accrue for these taxes on the portion of historical earnings that it intends to repatriate.

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.

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:

	2020	2019
Deferred tax assets:		
Net operating loss and credit carryforwards	$ 16,039,000	$ 16,044,000
Stock-based compensation	868,000	822,000
R&D and other credits	2,108,000	2,014,000
Capitalized R&D expenses	487,000	476,000
Inventories	218,000	156,000
Accrued expenses and other	99,000	111,000
Gross deferred tax assets	19,819,000	19,623,000
Valuation allowance for deferred tax assets	(17,044,000)	(16,725,000)
Total deferred tax assets	2,775,000	2,898,000
Deferred tax liabilities:		
Depreciation and other	(390,000)	(277,000)
Intangible assets	(1,726,000)	(1,969,000)
Total deferred tax liabilities	(2,116,000)	(2,246,000)
Net deferred tax asset	$ 659,000	$ 652,000

As of June 30, 2019, the Company has also recorded a non-current income tax receivable of $214,000 related to previously paid alternative minimum tax that is expected to be recovered within the next five years pursuant to certain provisions of the TCJA. During fiscal 2020, approximately $107,000 of this receivable was collected, and the balance was reclassified to other receivables, current, and subsequently collected in July 2020.

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. In order to fully realize the deferred tax asset, the Company will need to generate future taxable income of approximately $74 million prior to the expiration of NOL carry-forwards from 2021 through 2034. Based on the level of historical taxable income, management has provided for a valuation adjustment against the deferred tax assets of $17,044,000 at June 30, 2020, an increase of approximately $319,000 as compared to June 30, 2019. 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 net deferred tax asset of $659,000 results from federal and state tax credits with indefinite carryover periods, and approximately $510,000 in federal NOL carryforwards that management expects to utilize in a future period. 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, 2020, in addition to net operating loss carry forwards, the Company also has research and development credit carry forwards of approximately $2,108,000, which will expire from 2022 through 2039. 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. The awards include incentive stock options, non-qualified stock options and restricted stock unit ("RSU") awards. 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. The Company estimates the fair value of each stock option as of the date of grant using the Black-Scholes-Merton pricing model. 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.

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 $2,500 and $3,900 for fiscal 2020 and 2019, 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, 2020	Available for Issuance at June 30, 2020
SICP (or Omnibus Plan)	5,115,625	3,262,426	930,326
2014 ESPP	400,000	—	306,600
	5,515,625	3,262,426	1,236,926

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.

For stock options and RSUs granted in the years ended June 30, 2020 and 2019, the Company estimated the fair value of each stock award as of the date of grant using the following assumptions:

	Year Ended June 30,	
	2020	2019
Weighted-average expected volatility	64.4%	69.5%
Dividend yields	0%	0%
Weighted-average risk-free interest rate	1.53%	3.00%
Weighted-average expected term, in years	6.93	7.50

The assumed forfeiture rates used in calculating the fair value of options and restricted stock unit grants with both performance and service conditions were 20% for each of the years ended June 30, 2020 and 2019. 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.

Information Regarding Current Share-Based Payment Awards — A summary of the activity for share-based payment awards in the years ended June 30, 2020 and 2019 is presented below:

	Stock Options			Restricted Stock Units (RSUs)	
	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contract	Shares	Weighted-Average Remaining Contract
June 30, 2018	1,005,129	$ 1.77	6.3	1,649,353	0.9
Granted	13,058	$ 2.10	9.4	229,509	2.4
Exercised	(17,610)	$ 1.08		(14,336)	
Cancelled/Forfeited	(20,652)	$ 1.17		—	
June 30, 2019	979,925	$ 1.80	5.5	1,864,526	0.9
Granted	314,817	$ 1.60	9.6	484,000	2.4
Exercised	(29,356)	$ 1.35		(17,204)	
Cancelled/Forfeited	(322,811)	$ 2.08		(11,471)	
June 30, 2020	942,575	$ 1.65	6.5	2,319,851	0.9
Awards exercisable/ vested as of **June 30, 2020**	676,293	$ 1.63	5.3	1,650,325	—
Awards unexercisable/ unvested as of **June 30, 2020**	266,282	$ 1.70	9.6	669,526	0.9
	942,575			2,319,851	

The total intrinsic value of stock options exercised for the years ended June 30, 2020 and 2019 was approximately $35,000 and $580, respectively.

The total intrinsic value of stock options outstanding and exercisable at June 30, 2020 and 2019 was approximately $1.2 million and $320, respectively.

The total fair value of stock options vested during the years ended June 30, 2020 and 2019 was approximately $94,000 and $170,000, respectively.

The total intrinsic value of RSUs exercised during the years ended June 30, 2020 and 2019 was approximately $12,000 and $26,000, respectively.

The total intrinsic value of RSUs outstanding and exercisable at June 30, 2020 and 2019 was approximately $5.5 million and $1.3 million, respectively.

The total fair value of RSUs vested during the years ended June 30, 2020 and 2019 was approximately $443,000 and $393,000, respectively.

As of June 30, 2020, there was approximately $754,000 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	RSUs	Total
June 30, 2021	$ 59,572	$ 271,867	$ 331,439
June 30, 2022	55,654	148,543	204,197
June 30, 2023	62,517	68,704	131,221
June 30, 2024	46,945	40,539	87,484
	$ 224,688	$ 529,653	$ 754,341

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.

RSU awards vest immediately or from two to four years from the grant date.

The Company issues new shares of Class A common stock upon the exercise of stock options. The following table is a summary of the number and weighted-average grant date fair values, estimated using the Black-Scholes-Merton pricing mode, regarding the Company's unexercisable/unvested awards as of June 30, 2020 and 2019 and changes during the two years then ended:

Unexercisable/Unvested Awards	Stock Options Shares	RSU Shares	Total Shares	Weighted-Average Grant Date Fair Values (per share)
June 30, 2018	218,419	361,983	580,402	$ 1.53
Granted	13,058	229,509	242,567	$ 1.80
Vested	(118,282)	(191,348)	(309,630)	$ 1.79
Cancelled/Forfeited	(2,500)	-	(2,500)	$ 0.97
June 30, 2019	110,695	400,144	510,839	$ 2.09
Granted	314,817	484,000	798,817	$ 0.79
Vested	(99,151)	(203,147)	(302,298)	$ 1.78
Cancelled/Forfeited	(60,079)	(11,471)	(71,550)	$ 2.70
June 30, 2020	266,282	669,526	935,808	$ 1.10

Acceleration of Vesting — The Company does not generally accelerate the vesting of any stock options.

Financial Statement Effects and Presentation — The following table shows total stock-based compensation expense for the years ended June 30, 2020 and 2019 included in the accompanying Consolidated Statements of Comprehensive Income (Loss):

	Year Ended June 30,	
	2020	2019
Stock options	$ (59,019)	$ 36,461
RSUs	309,757	358,329
Total	$ 250,738	$ 394,790
The amounts above were included in:		
Selling, general & administrative	$ 250,738	$ 393,352
Cost of sales	-	1,620
New product development	-	(182)
	$ 250,738	$ 394,790

During the year ended June 30, 2020, an unusually large number of grants were forfeited unvested due to the departure of several executives.

11. Earnings Per Share

Basic earnings per share is computed by dividing net income by the weighted-average number of shares of Class A common stock outstanding during each period presented. Diluted earnings per share is computed similarly to basic earnings 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 per share are described in the following table:

	Year Ended June 30,	
	2020	2019
Net income (loss)	$ 866,929	$ (2,680,323)
Weighted-average common shares outstanding:		
Basic number of shares	25,853,419	25,794,669
Effect of dilutive securities:		
Options to purchase common stock	7,026	-
RSUs	1,609,400	-
Diluted number of shares	27,469,845	25,794,669
Earnings (loss) per common share:		
Basic	$ 0.03	$ (0.10)
Diluted	$ 0.03	$ (0.10)

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,	
	2020	2019
Options to purchase common stock	918,951	999,612
RSUs	518,610	1,755,893
	1,437,561	2,755,505

12. Defined Contribution Plan

The Company provides retirement benefits to its U.S.-based employees through a defined contribution retirement plan. These benefits are offered under the Insperity 401(k) plan (the “Insperity Plan”). The Insperity Plan is a defined 401(k) contribution plan that all employees, over the age of 21, are eligible to participate in after three months of employment. Under the Insperity Plan, the Company matches 100% of the first 2% of employee contributions. As of June 30, 2020, there were 56 employees who are enrolled in this plan. The Company made matching contributions of approximately $97,000 and $107,000 during the years ended June 30, 2020 and 2019, respectively.

13. Leases

The Company has operating leases for its manufacturing and office space. As of June 30, 2020, the Company had two lease agreements for its corporate headquarters and manufacturing facilities in Orlando, Florida. The first lease (the “Orlando Lease”) is for approximately 26,000 square feet, has a seven-year original term with renewal options, and expires in April 2022. Minimum rental rates for the extension term were established based on annual increases of two-and one-half percent starting in the third year of the extension period. 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. In April 2018, the Company entered into a lease agreement for an additional 12,378 square feet in Orlando, Florida (the “Orlando Lease II”). The Orlando Lease II provides 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 has a four-year original term with one renewal option for an additional five-year term.

As of June 30, 2020, the Company, through its wholly-owned subsidiary, LPOI, had a lease agreement for an office facility in Shanghai, China (the “Shanghai Lease”) for 1,900 square feet. The Shanghai Lease commenced in October 2015. During fiscal 2020, the Shanghai Lease was renewed for an additional three-year term, and now expires in October 2022.

As of June 30, 2020, the Company, through its wholly-owned subsidiary, LPOIZ, had three lease agreements for manufacturing and office facilities in Zhenjiang, China for an aggregate of 55,000 square feet. The initial lease (the “Zhenjiang Lease I”) is for approximately 26,000 square feet, and had a five-year original term with renewal options. In fiscal 2019, the Company renewed the Zhenjiang Lease I and it now expires in June 2022. During fiscal 2018, another lease was executed for 13,000 additional square feet in this same facility (the “Zhenjiang Lease II”). The Zhenjiang Lease II has a 54-month term, and expires in December 2021. During fiscal 2019, LPOIZ entered into a third lease agreement for manufacturing space near the existing facility, for an additional 16,000 square feet (the “Zhenjiang Lease III”). The Zhenjiang Lease III has a three-year term and expires in April 2022.

At June 30, 2020, the Company, through its wholly-owned subsidiary ISP, had a lease agreement for a manufacturing and office facility in Irvington, New York (the “ISP Lease”) for 13,000 square feet. The ISP Lease, which had a five-year original term with renewal options, expired in August 2020. As of June 30, 2019, the relocation of the operations formerly housed in this facility was complete and we had ceased use of this facility. See Note 18, *Restructuring*, to these Consolidated Financial Statements for additional information.

At June 30, 2020, the Company, through ISP’s wholly-owned subsidiary ISP Latvia, had two lease agreements for a manufacturing and office facility in Riga, Latvia (the “Riga Leases”) for an aggregate of 23,000 square feet. The Riga Leases, each of which was for a five-year original term with renewal options, were set to expire in December 2019. During fiscal 2019, the Riga Leases were renewed, and now expire in December 2022.

As discussed in Note 2, Significant Accounting Policies, to these Consolidated Financial Statements, the Company adopted ASC Topic 842 effective July 1, 2019. 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. The operating leases for facilities are non-cancelable, expiring through 2022. The Company includes options to renew (or terminate) in the lease term, and as part of the right-of-use (“ROU”) assets and lease liabilities, when it is reasonably certain that the Company will exercise that option. The Company currently has obligations under four finance lease agreements, entered into during fiscal years 2018 and 2019, with terms ranging from three to five years. The leases are for computer and manufacturing equipment.

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.

The Company received tenant improvement allowances for the Orlando Lease and for Orlando Lease II. These allowances were used to construct improvements and are included in leasehold improvements and operating lease liabilities. The balances are being amortized over the corresponding lease terms.

The components of lease expense were as follows:

	Year Ended June 30, 2020
Operating lease cost	$ 646,845
Finance lease cost:	
Depreciation of lease assets	324,058
Interest on lease liabilities	77,540
Total finance lease cost	401,598
Total lease cost	$ 1,048,443

Supplemental balance sheet information related to leases was as follows:

	Classification	As of June 30, 2020
Assets:		
Operating lease assets	Operating lease assets	$ 1,220,430
Finance lease assets	Property and equipment, net [1]	666,519
Total lease assets		$ 1,886,949
Liabilities:		
Current:		
Operating leases	Operating lease liabilities, current	$ 765,422
Short-term leases	Accrued liabilities [2]	97,665
Finance leases	Finance lease liabilities, current	278,040
Noncurrent:		
Operating leases	Operating lease liabilities, less current portion	887,766
Finance leases	Finance lease liabilities, less current portion	279,435
Total lease liabilities		$ 2,308,328

(1) Finance lease assets are recorded net of accumulated depreciation of approximately $1.0 million as of June 30, 2020.

(2) Represents accrual related to the ISP Lease, which we ceased use of as of June 30, 2019. All remaining lease payments were accrued as of that date, through the ISP Lease expiration in August 2020. See Note 14, *Restructuring*, to these Consolidated Financial Statements for additional information.

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

Lease Term and Discount Rate	As of June 30, 2020
Weighted Average Remaining Lease Term (in years)	
Operating leases	2.1
Finance leases	2.2
Weighted Average Discount Rate	
Operating leases	4.9%
Finance leases	7.9%

Supplemental cash flow information:

		Year Ended June 30, 2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash used for operating leases	$	790,199
Operating cash used for finance leases	$	77,553
Financing cash used for finance leases	$	487,233

Future maturities of lease liabilities, excluding amounts accrued for the ISP Lease, were as follows as of June 30, 2020:

Fiscal year ending:		Finance Leases		Operating Leases
June 30, 2021	$	321,297	$	844,636
June 30, 2022		231,783		787,062
June 30, 2023		59,647		162,829
June 30, 2024		11,811		–
Total future minimum payments		624,538		1,794,527
Less imputed interest		(67,063)		(141,339)
Present value of lease liabilities	$	557,475	$	1,653,188

14. Contingencies

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.

The Company's business, results of operations financial condition, cash flows, and the stock price of its Class A common stock can be adversely affected by pandemics, epidemics, or other public health emergencies, such as the recent outbreak of the coronavirus ("COVID-19"), which has spread from China to many other countries across the world, including the United States. In March 2020, the World Health Organization (the "WHO") declared COVID-19 as a pandemic. The COVID-19 pandemic has resulted in governments around the world implementing increasingly stringent measures to help control the spread of the virus, including "stay at home" orders, travel restrictions, business curtailments, school closures, and other measures.

To date, the Company has not experienced any direct financial impact of COVID-19 to its business. However, the COVID-19 pandemic continues to impact economic conditions, which could impact the short-term and long-term demand from customers and, therefore, has the potential to negatively impact the Company's results of operations, cash flows, and financial position in the future. Management is actively monitoring this situation and any impact on our financial condition, liquidity, and results of operations. However, given the daily evolution of the COVID-19 pandemic and the global responses to curb its spread, we are not presently able to estimate the effects of the COVID-19 pandemic on our future results of operations, financial, or liquidity in fiscal year 2021 or beyond.

15. 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 $736,000 and $809,000 as of June 30, 2020 and 2019, respectively. During the years ended June 30, 2020 and 2019, we also recognized net foreign currency transaction losses of approximately $214,000 and $436,000, respectively, included in the Consolidated Statements of Comprehensive Income (Loss) in the line item entitled "Other income (expense), net."

Assets and net assets in foreign countries are as follows:

	China		Latvia	
	June 30, 2020	June 30, 2019	June 30, 2020	June 30, 2019
Assets	$19.0 million	$16.9 million	$9.8 million	$8.2 million
Net assets	$16.2 million	$14.5 million	$8.2 million	$7.8 million

16. 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 specialty 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. The Company believes that a satisfactory supply of such production materials will continue to be available, at reasonable prices or, in some cases, at increased prices, although there can be no assurance in this regard.

In fiscal 2020, the Company had sales to three customers that comprised an aggregate of approximately 31% of its annual revenue, and 30% of its accounts receivable. Sales to these customers as a percentage of our fiscal 2020 revenue include one customer at 15%, another customer at 10%, and the third customer at 6%. One of these customers comprised 18% of accounts receivable, and the other two customers were each less than 10% of accounts receivable as of June 30, 2020. In fiscal 2019, the Company had sales to three customers that comprised an aggregate of approximately 32% of its annual revenue, and 39% of its accounts receivable. Sales to these customers as a percentage of our fiscal 2019 revenue include one customer at 17%, another customer at 8%, and the third customer at 7%. One of these customers comprised 20% of accounts receivable, a second customer comprised 11% of accounts receivable and the other customer was less than 10% of accounts receivable as of June 30, 2019. In both fiscal 2020 and 2019, these top three customers include a distributor, which actually represents sales to numerous customers. 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 2020, 66% of the Company's net revenue was derived from sales outside of the U.S., with 96% of foreign sales derived from customers in Europe and Asia. In fiscal 2019, 62% 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.

17. Loans Payable

BankUnited 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 "BankUnited Revolving Line"), (ii) a term loan in the amount of up to $5,813,500 ("BankUnited 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 BankUnited Revolving Line and BankUnited Term Loan, the "BankUnited Loans"). Each of the BankUnited Loans is evidenced by a promissory note in favor of BankUnited (the "BankUnited Notes").

On May 6, 2019, the Company entered into that certain First Amendment to Loan Agreement, effective February 26, 2019, with BankUnited (the "Amendment" and, together with the Loan Agreement, the "Amended Loan Agreement"). The Amendment amended the definition of the fixed charge coverage ratio to more accurately reflect the parties' understandings at the time the Loan Agreement was executed.

BankUnited Revolving Line

Pursuant to the Amended Loan Agreement, BankUnited will make loan advances under the BankUnited Revolving Line to the Company up to a maximum aggregate principal amount outstanding not to exceed $2,000,000, which proceeds will be used for working capital and general corporate purposes. Amounts borrowed under the BankUnited Revolving Line may be repaid and re-borrowed at any time prior to February 26, 2022, at which time all amounts will be immediately due and payable. The advances under the BankUnited Revolving Line bear interest, on the outstanding daily balance, at a per annum rate equal to 2.75% above the 30-day LIBOR. Interest payments are due and payable, in arrears, on the first day of each month. As of June 30, 2020, the applicable interest rate was 2.92%.

BankUnited Term Loan

Pursuant to the Amended Loan Agreement, BankUnited advanced the Company $5,813,500 to satisfy in full the amounts owed to Avidbank, including the Term II Loan, and to pay the fees and expenses incurred in connection with closing of the BankUnited Loans. The BankUnited Term Loan is for a 5-year term, but co-terminus with the BankUnited Revolving Line should the BankUnited Revolving Line not be renewed beyond February 26, 2022. Management expects the BankUnited Revolving Line to be renewed. The BankUnited Term Loan bears interest at a per annum rate equal to 2.75% above the 30-day LIBOR. Equal monthly principal payments of $48,445.83, plus accrued interest, are due and payable, in arrears, on the first day of each month during the term. Upon maturity, all principal and interest shall be immediately due and payable. As of June 30, 2020, the applicable interest rate was 2.92%.

Guidance Line

Pursuant to the Amended Loan Agreement, BankUnited, in its sole discretion, may make loan advances to the Company under the Guidance Line up to a maximum aggregate principal amount outstanding not to exceed $10,000,000, which proceeds will be used for capital expenditures and approved business acquisitions. Such advances must be in minimum amounts of $1,000,000 for acquisitions and $500,000 for capital expenditures, and will be limited to 80% of cost or as otherwise determined by BankUnited. Amounts borrowed under the Guidance Line may not re-borrowed. The advances under the Guidance Line bear interest, on the outstanding daily balance, at a per annum rate equal to 2.75% above the 30-day LIBOR. Interest payments are due and payable, in arrears, on the first day of each month. On each anniversary of the Amended Loan Agreement, monthly principal payments become payable, amortized based on a ten-year term. There were no amounts outstanding under the Guidance Line at June 30, 2020.

Security and Guarantees

The Company’s obligations under the Amended Loan Agreement are collateralized by a first priority security interest (subject to permitted liens) in all of its assets and the assets of the Company’s U.S. subsidiaries, GelTech, and ISP, pursuant to a Security Agreement granted by GelTech, ISP, and the Company in favor of BankUnited. The Company’s equity interests in, and the assets of, its foreign subsidiaries are excluded from the security interest. In addition, all of the Company’s subsidiaries have guaranteed the Company’s obligations under the Amended Loan Agreement and related documents, pursuant to Guaranty Agreements executed by the Company and its subsidiaries in favor of BankUnited.

General Terms

The Amended Loan Agreement contains customary covenants, including, but not limited to: (i) limitations on the disposition of property; (ii) limitations on changing the Company’s business or permitting a change in control; (iii) limitations on additional indebtedness or encumbrances; (iv) restrictions on distributions; and (v) limitations on certain investments. The Amended Loan Agreement also contains certain financial covenants, including obligations to maintain a fixed charge coverage ratio of 1.25 to 1.00 and a total leverage ratio of 4.00 to 1.00. As of June 30, 2020, the Company was in compliance with all required covenants.

We may prepay any or all of the BankUnited Loans in whole or in part at any time, without penalty or premium. Late payments are subject to a late fee equal to five percent (5%) of the unpaid amount. Amounts outstanding during an event of default accrue interest at a rate of five percent (5%) above the 30-day LIBOR applicable immediately prior to the occurrence of the event of default. The Amended Loan Agreement contains other customary provisions with respect to events of default, expense reimbursement, and confidentiality.

Financing costs incurred were recorded as a discount on debt and are being amortized over the term. Amortization of approximately $19,000 and $117,000 is included in interest expense for the years ended June 30, 2020 and 2019, respectively. For the year ended June 30, 2019, this includes approximately $94,000 of previously unamortized financing costs related to our previous term loan with Avidbank Corporate Finance, a division of Avidbank, which were expensed as of February 26, 2019 when this note was paid in full.

Future maturities of loans payable are as follows:

	BankUnited Term Loan	BankUnited Revolver	Unamortized Debt Costs	Total
Fiscal year ending:				
June 30, 2021	$ 581,350	$ 400,000	$ (18,572)	$ 962,778
June 30, 2022	581,350	-	(18,572)	562,778
June 30, 2023	581,350	-	(18,572)	562,778
June 30, 2024	3,342,762	-	(12,381)	3,330,381
Total payments	$ 5,086,812	$ 400,000	$ (68,097)	5,418,715
Less current portion				(981,350)
Non-current portion				$ 4,437,365

18. Restructuring

In July 2018, we announced the relocation and consolidation of the Irvington Facility into our existing facilities in Orlando, Florida and Riga, Latvia. We record charges for restructuring and other exit activities related to the closure or relocation of business activities at fair value, when incurred. Such charges include termination benefits, contract termination costs, and costs to consolidate facilities or relocate employees. For the year ended June 30, 2019, we recorded approximately $1.2 million in expenses related to the relocation of the Irvington Facility. These charges are included as a component of the “Selling, general and administrative” expenses line item in the accompanying Consolidated Statement of Comprehensive Income (Loss). These charges included approximately $467,000 for the Company’s remaining obligation under the ISP Lease until its expiration in September 2020, as we had ceased use of this facility. Amounts accrued and included in our Consolidated Balance Sheet as of June 30, 2019 related to this activity are comprised of the remaining lease obligation of approximately $467,000, included in “Accrued liabilities”, and approximately $246,000 of termination benefits and other cost, included in “Accrued payroll and benefits.” As of June 30, 2020, the remaining amounts accrued in the accompanying Consolidated Balance Sheet include approximately $98,000 related to the lease obligation.

End of Consolidated Financial Statements

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 10, 2020

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.

/s/ SHMUEL RUBIN **Shmuel Rubin** **President & Chief Executive Officer** **(Principal Executive Officer)**	September 10, 2020	/s/ DONALD O. RETREAGE, Jr. **Donald O. Retreage, Jr.** **Chief Financial Officer** **(Principal Financial Officer)**	September 10, 2020
/s/ ROBERT RIPP **Robert Ripp** **Director (Chairman of the Board)**	September 10, 2020	/s/ SOHAIL KHAN **Sohail Khan** **Director**	September 10, 2020
/s/ DR. STEVEN R. J. BRUECK **Dr. Steven R. J. Brueck** **Director**	September 10, 2020	/s/ LOUIS LEEBURG **Louis Leeburg** **Director**	September 10, 2020
/s/ M. SCOTT FARIS **M. Scott Faris** **Director**	September 10, 2020	/s/ JOSEPH MENAKER **Dr. Joseph Menaker** **Director**	September 10, 2020
/s/ CRAIG DUNHAM **Craig Dunham** **Director**	September 10, 2020	/s/ DARCIE PECK **Darcie Peck** **Director**	September 10, 2020

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 03:10 PM 06/15/1992
921675368 - 2300914

CERTIFICATE OF INCORPORATION

OF

LIGHTPATH TECHNOLOGIES, INC.

THE UNDERSIGNED, in order to form a corporation for the purposes hereinafter stated, under and pursuant to the provisions of the General Corporation Law of the State of Delaware ("GCL"), does hereby certify as follows:

FIRST. The name of the corporation is Lightpath Technologies, Inc.

SECOND. The address of the corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

THIRD. The purpose of the corporation is to engage in any lawful act or activity for which corporations may be organized under the GCL.

FOURTH. The total number of shares which the corporation is authorized to issue is Six Million Five Hundred Thousand (6,500,000) shares of common stock having a par value of $.01 per share, and One Million (1,000,000) shares of preferred stock having a par value of $.01 per share. The directors of the corporation shall have the authority to issue such shares of preferred stock in one or more 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 the directors of the corporation and filed as a Certificate of Designations pursuant to Section 151(g) of the GCL.

FIFTH. The name and mailing address of the incorporator are as follows:

Vernon R. Proctor
902 Market Street, Suite 1300
Wilmington, DE 19801

SIXTH. The powers of the incorporator are to terminate upon the filing of this Certificate of Incorporation. The name and mailing addresses of the persons who are to serve as directors of the corporation until the first annual meeting of stockholders or until their respective successors are elected and qualified are as follows:

Leslie Danziger	3333 N. Campbell Avenue, Suite 7 Tucson, Arizona 85719
Bryant Cushing	3333 N. Campbell Avenue, Suite 7 Tucson, Arizona 85719
Ross James	3333 N. Campbell Avenue, Suite 7 Tucson, Arizona 85719

SEVENTH. In furtherance and not in limitation of the powers conferred by statute, the directors of the corporation are expressly authorized to adopt, alter, amend or repeal the By-laws of the corporation; provided, however, that By-laws shall not be adopted, altered, amended, or repealed by the stockholders of the corporation except by the vote of the holders of not less than 85% of the outstanding shares of stock entitled to vote upon the election of directors.

EIGHTH. Meetings of stockholders may be held within or without the State of Delaware, as the By-laws may provide. The books of the corporation may be kept (subject to any provision contained in the GCL) outside the State of Delaware at such place or places as may be designated from time to time by the directors of the corporation or in the By-laws of the corporation. The election of directors need not be by written ballot.

NINTH. The corporation reserves the right to amend, alter, change, or repeal any provision contained in this certificate of incorporation, in the manner now or hereafter prescribed by the GCL, and all rights conferred upon stockholders herein are granted subject to this reservation.

TENTH. No director of the corporation shall be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director; provided, however, that the foregoing clause shall not apply to any liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for any transaction from which the director derived an improper personal benefit, or (iv) under Section 174 of the GCL. This Article shall not eliminate or limit the liability of a director for any act or omission occurring prior to the time this Article became effective.

ELEVENTH. Notwithstanding any other provision of this Certificate of Incorporation or the By-laws of the corporation (and in addition to any other vote that may be required by law, by this Certificate of Incorporation or by the By-laws), the affirmative vote of the holders of (i) at least 85% of the outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to amend, alter, or repeal this Article ELEVENTH or any provision of Articles SEVENTH, TENTH, THIRTEENTH, or FOURTEENTH of this Certificate of Incorporation, and (ii) at least 85% of the outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to amend, alter, or repeal any provision of Articles FOURTH or TWELFTH of this Certificate of Incorporation if such amendment is not approved by a majority of the members of the board

of directors then in office who were directors prior to the three year period ending on the date that any person became an "interested stockholder" as defined in Section 203(c)(5) of GCL or who were recommended for election or elected to succeed such directors by a majority of such directors.

TWELFTH. No action required or permitted to be taken at any annual or special meeting of stockholders of the corporation may be taken without a meeting, and the power of stockholders to consent in writing, without a meeting, to the taking of any action is specifically denied. Special meetings of stockholders may be called only by the Chairman of the Board, by the President, or a majority of the corporation's directors.

THIRTEENTH. The holders of capital stock in the corporation shall have no preemptive rights to subscribe to any shares of any class of capital stock with the corporation, whether now or hereafter authorized.

FOURTEENTH. (a) The number of directors constituting the entire Board shall be not less than three nor more than seven as fixed from time to time by vote of a majority of the entire Board; provided, however, that the number of directors shall not be reduced so as to shorten the term of any director at the time in office.

(b) The Board of Directors shall be divided into three classes, as nearly equal in number as the then total number of directors constituting the entire Board permits, with the term of office of one class expiring each year. At the first annual meeting of stockholders, directors of the first class shall be elected to hold office for a term expiring at the next succeeding annual meeting, directors of the second class shall be elected to hold office for a term expiring at the second succeeding annual meeting, and directors of the third class shall be elected to hold office for a term expiring at the third succeeding annual meeting. Any vacancies in the

Board of Directors for any reason, and any directorships resulting from any increase in the number of directors, may be filled by the Board of Directors, acting by a majority of the directors then in office, although less than a quorum, and any directors so chosen shall hold office until the next election of the class for which such directors shall have been chosen and until their successors shall be elected and qualified. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of Preferred Stock shall have the right, voting separately as a class, to elect one or more directors of the corporation, the terms of the director or directors elected by such holders shall expire at the next succeeding annual meeting of stockholders. Subject to the foregoing, at each annual meeting of stockholders the successors to the class of directors whose term shall then expire shall be elected to hold office for a term expiring at the third succeeding annual meeting.

(c) Notwithstanding any other provisions of this Certificate of Incorporation or the By-laws of the corporation (and notwithstanding the fact that some lesser percentage may be specified by law, this Certificate of Incorporation or the By-laws of the corporation), any director or the entire Board of Directors of the corporation may be removed at any time, but only for cause and only by the affirmative vote of the holders of 85% or more of the outstanding shares of capital stock of the corporation entitled to vote generally in the election of directors (considered for this purpose as one class) cast at a meeting of the stockholders called for that purpose. Notwithstanding the foregoing, and except as otherwise required by law, whenever the holders of any one or more series of Preferred Stock shall have the right, voting separately as a class, to elect one or more directors of the corporation, the provisions of section (c) of this Article shall not apply with respect to the director or directors elected by such holders of Preferred Stock.

FIFTEENTH. Notwithstanding any other provision of this Certificate of Incorporation or the By-laws of the corporation (and in addition to any other vote that may be required by law, by this Certificate of Incorporation or by the By-laws), the affirmative vote of the holders of at least 85% of the outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors (considered for this purpose as one class) shall be required to sell, assign or otherwise dispose of any of the corporation's issued or pending patents or rights therein, or to enter into any "business combination" (as defined in Section 203(c)(3) of the GCL) which would have the effect of such sale, assignment or disposition, if such transaction is not approved by a majority of the members of the board of directors then in office who were directors prior to the three year period ending on the date that any person became an "interested stockholder" (as defined in Section 203(c)(5) of the GCL) or who were recommended for election or elected to succeed such directors by a majority of such directors.

I, THE UNDERSIGNED, being the incorporator hereinbefore named, for the purpose of forming a corporation pursuant to the General Corporation Law of the State of Delaware, do make this certificate, hereby declaring and certifying that this is my act and deed and the facts herein stated are true and accordingly have hereunto set my hand and seal this 15th day of June, 1992.

VERNON R. PROCTOR

SENT BY:CT CORP SYSTEM PHOENIX 302 674 5863:# 2/ 5
P.02

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 02:30 PM 10/02/1995
950225672 - 2300914

CERTIFICATE OF AMENDMENT

TO

CERTIFICATE OF INCORPORATION

LIGHTPATH TECHNOLOGIES, INC., a corporation organized and existing under and by virtue of the General Corporation Law Of the State of Delaware, DOES HEREBY CERTIFY:

FIRST: That a meeting of the Board of Directors of LIGHTPATH TECHNOLOGIES, INC. (the "Corporation") on September 14, 1995, resolutions were duly adopted setting forth proposed amendments to the Certificate of Incorporation of the Corporation, declaring said amendments to be advisable and directing that said amendment be considered at the next special meeting of the stockholders of the Corporation. The resolutions setting forth the proposed amendment are as follows:

RESOLVED, that (i) all authorized and all outstanding shares of Common Stock, $.01 par value, of the Corporation (the "Common Stock"), (ii) all shares of Common Stock subject to outstanding options and warrants, and (iii) all shares of Common Stock authorized for issuance pursuant to the Omnibus Incentive Plan, and Amended and Restated Directors Stock Option Plan of the Corporation, be reverse split on the basis of one share to each 5.5 shares of Common Stock authorized and/or issued and/or outstanding, the resulting and then outstanding shares of Common Stock to be denominated "Class A Common Stock," and that Article Fourth of the

Company's Certificate of Incorporation be amended to effect the foregoing.

FURTHER RESOLVED, that the par value of all shares of Common Stock after the reverse stock split, whether issued, outstanding or authorized for issuance, shall be $.01 per share.

FURTHER RESOLVED, that Article Fourth of the Corporation's Certificate of Incorporation be, and hereby is, amended in its entirety to read as follows:

> FOURTH. The total number of shares of capital stock which the Corporation shall have authority to issue is Forty-Five Million (45,000,000) shares, divided into Forty Million (40,000,000) shares of Common Stock of the par value of $.01 per share, and Five Million (5,000,000) shares of preferred stock of the par value of $.01 per share. The Board of Directors of the Corporation shall have 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 the Board of Directors of the Corporation and filed as a Certificate

of Designations pursuant to Section 151(g) of the General Corporation Law of the State of Delaware.

SECOND: that thereafter, pursuant to resolution of its Board of Directors, a Special Meeting of the stockholders of the Corporation was duly called and held on September 29, 1995, upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware at which meeting the necessary number of shares as required by statute were voted in favor of the amendments.

THIRD: That said amendments were duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, LIGHTPATH TECHNOLOGIES, INC. has caused this certificate to be signed by Leslie A. Danziger its Chairperson and President, and attested by Louis F. Wagman, its Secretary, this 29th day of September, 1995.

LIGHTPATH TECHNOLOGIES, INC.

BY: Leslie A. Danziger
Chairperson and President

D07: [03488.DOCS.LIGHTPATH.IPO]CERT_AMEND.

ATTEST:

Louis P. Wagman, Secretary

DO7:(03485.DOCS.LIGHTPATH.IPO)CERT_AMEND.

** TOTAL PAGE.05 **

STATE OF DELAWARE
SECRETARY OF STATE
DIVISION OF CORPORATIONS
FILED 04:30 PM 11/09/1995
950261201 - 2300914

**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**

LightPath Technologies, Inc., a corporation duly organized and existing under the General Corporation Law of Delaware (the "Company"), DOES HEREBY CERTIFY:

That pursuant to authority conferred upon the Board of Directors of the Company by the Certificate of Incorporation of the Company, as amended (the "Certificate of Incorporation"), and pursuant to the provisions of Section 15 of the General Corporation Law of the State of Delaware, the Board of Directors of the Company, at a meeting held September 14, 1995, duly adopted the following resolutions:

WHEREAS, the Certificate of Incorporation provides for Common Stock comprised of 40,000,000 authorized shares with a par value of $.01 per share, in one or more classes or series as authorized by the Board of Directors (the "Common Stock"), of which an aggregate of approximately 710,334 shares are issued and outstanding;

WHEREAS, the Board of Directors is authorized to fix the rights, preferences and privileges of and the number of shares consisting of any classes and series and the designation thereof; and

WHEREAS, the Board of Directors now wishes to fix the rights, preferances and privileges relating to four classes of Common Stock;

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Company does hereby provide for the issuance of four classes of Common Stock to be known, respectively, as Class A Common Stock, Class E-1 Common Stock, Class E-2 Common Stock and Class E-3 Common Stock of the Company and fixes the respective designations, powers, preferences and relative, participating, optional and other special rights, and the qualifications, limitations or restrictions of the shares of said classes of Common Stock, as follows:

1. Definitions. As used in this Certificate, the following words and expressions shall have the respective meanings set out below:

"Bid Price" shall mean, with respect to a share of the Company's Class A Common Stock:

(1) If the principal market for the Class A Common Stock is a national securities exchange or the Nasdaq National Market, the closing sales price of the Class A Common Stock as reported by such exchange or market, or on a consolidated tape reflecting transactions on such exchange or market; or

(2) If the principal market for the Class A Common Stock is not a national securities exchange or the Nasdaq National Market and the Class A Common Stock is quoted on the Nasdaq SmallCap Market, the closing bid price of the Class A Common Stock as quoted on the Nasdaq SmallCap Market; or

(3) If the principal market for the Class A Common Stock is not a national securities exchange or the Nasdaq National Market and the Class A Common Stock is not quoted on the Nasdaq SmallCap Market, the closing bid for the Class A Common Stock as reported by the National Quotation Bureau, Inc. ("NQB") or at least two market makers in the Class A Common Stock if quotations are not available from NQB but are available from market makers.

"Certificate of Incorporation" means the Certificate of Incorporation of the Company as amended and in effect from time to time.

"Class A Common Stock" means the class of Common Stock so designated and provided for by this Certificate, which class shall include the approximately 710,334 shares of such Common Stock, issued and outstanding as of the date of this Certificate and which shares shall hereafter form a part of the Class A Common Stock provided for by this Certificate.

"Class E-1 Common Stock" means the class of Common Stock so designated and provided for by this Certificate.

"Class E-2 Common Stock" means the class of Common Stock so designated and provided for by this Certificate.

"Class E-3 Common Stock" means such class of Common Stock as designated and provided for by this Certificate.

"Effective Date" means the date on which the Public Offering shall become effective pursuant to an order of the Securities Exchange Commission.

"Minimum Pretax Income" means the Company's net income before provision for income taxes and exclusive of any extraordinary earnings, all as audited and determined by the Company's certified public accountants. The Minimum Pretax Income will be calculated exclusive of any extraordinary earnings including, but not limited to, any charge to income resulting from the conversion of the Class E-1 Shares, Class E-2 shares or Class E-3 Shares into Class A Common Stock or any options to purchase shares of Common Stock outstanding prior to the Effective Date. The Minimum Pretax Income amounts set forth below in 3.E(1), (2) and (3) assume (i) the issuance of shares of Class A Common Stock on or prior to the Effective Date in exchange for satisfaction of outstanding indebtedness of the Company ("Debt Shares") and the issuance of shares of Class A Common Stock before or after the Effective Date upon exercise of outstanding options to purchase such shares

("Option Shares"); provided, however, that the Debt Shares and Option Shares are assumed to be outstanding only to the extent that the amount of shares of Class A Common Stock outstanding on the Effective Date, the Debt Shares and the Option Shares do not exceed 1,000,000 shares in the aggregate; (ii) the conversion into Class A Common Stock of all of the Class E-1, Class E-2 and Class E-3 Common Stock, and (iii) any other outstanding securities which are convertible into Class A Common Stock solely upon surrender of such convertible securities without the payment of any additional consideration. The Minimum Pretax Income amounts set forth below in 3.E(1), (2) and (3) will be increased proportionally to reflect the issuance of any other additional shares of Class A Common Stock not assumed to be outstanding in the preceding sentence, including any shares that may be issued upon the exercise of the Class A Warrants or the Class B Warrants or any other options or warrants granted by the Company after the date hereof, or any Debt Shares or Option Shares that exceed the aggregate limit set forth in the preceding sentence, and will be decreased to reflect the amount by which the aggregate amount paid with respect to the items set forth in Schedule 2(j) to the Agency Agreement dated November 1, 1995 between the Company and D.H. Blair Investment Banking Corp., exceeds $111,000.

"Public Offering" means the public offering of Units to be underwritten by D.H. Blair Investment Banking Corporation, each Unit consisting of one share of Class A Common Stock and one redeemable Class A Warrant and one redeemable Class B

Warrant, the Class A Warrant being exercisable to purchase one share of Class A Common Stock and one redeemable Class B Warrant exercisable to purchase one share of Class A Common Stock.

2. Designation of Class A Common Stock. 34,500,000 shares of Common Stock are hereby designated as Class A Common Stock.

A. General. Subject to the specific provisions of this Certificate of Designation, the Class A Common Stock shall have all of the rights, privileges and powers accorded to shares of Common Stock under the General Corporation Law of the State of Delaware.

B. Voting. The Class A Common Stock will have one vote per share on all matters on which stockholders may vote and will vote together with the Class E-1, Class E-2 and Class E-3 Common Stock on all matters on which holders of Common Stock may vote, except when class voting is required by law.

C. Dividends. Except as provided by law and subject to the rights of any class of Preferred Stock, the Class A Common Stock will receive dividends or distributions together with the Class E-1, Class E-2 and Class E-3 Common Stock, pro rata based on the aggregate number of shares of all such classes outstanding on the record date or dates for such dividends or distributions.

D. Liquidation, Dissolution or Winding Up of the Company. Except as provided by law and subject to the rights of any class of Preferred Stock, the Class A Common Stock together

with the Class E-1 Common Stock, Class E-2 Common Stock and Class E-3 Common Stock, will be entitled to distributions in the event of a liquidation, dissolution or winding up of the affairs of the Company, pro rata based on the aggregate number of shares of all such classes outstanding on the record date or dates for such dividends or distributions.

3. Designation of Class E-1, Class E-2 and Class E-3 Common Stock. 2,000,000 shares of Common Stock are hereby designated as Class E-1 Common Stock, 2,000,000 shares of Common Stock are hereby designated as Class E-2 Common Stock, and 1,500,000 shares of Common Stock are hereby designated as Class E-3 Common Stock.

A. General. Subject to the specific provisions of this Certificate of Designation, the Class E-1, Class E-2 and Class E-3 Common Stock shall have all of the rights, privileges and powers accorded to shares of Common Stock under the General Corporation Law of the State of Delaware.

B. Voting. The Class E-1, Class E-2 and Class E-3 Common Stock will have one vote per share on all matters on which stockholders may vote and will vote together with the Class A Common Stock on all matters on which holders of Common Stock may vote, except when class voting is required by law.

C. Dividends. Except as provided by law and subject to the rights of any class of Preferred Stock, the Class E-1, Class E-2 and Class E-3 Common Stock will receive dividends or distributions together with the Class A Common Stock, pro rata

based on the aggregate number of shares of all such classes outstanding on the record date for such dividend or distribution, provided, however, that any cash, securities and other property (the "Escrowed Property") that is the subject of such distribution or dividend to Class E-1, E-2 or E-3 shareholders shall be held in escrow with a person or entity (which may be the Company) designated by the Company until and if (i) the shares of Class E-1, Class E-2 or Class E-3 stock on which the dividend or distribution is made shall be converted into Class A Common Stock, in which event the Escrowed Property shall be delivered to the holder or holders of record of such Class A Common Stock as their respective sole property, or (ii) the series of Class E Common Stock on which such dividend or distribution is declared is redeemed by the Company as hereinafter set forth, in which event the Escrowed Property shall be returned to the Company as the sole property of the Company.

D. Liquidation, Dissolution or Winding Up of the Company.

(1) Except as provided by law and subject to the rights of any class of Preferred Stock, the Class E-1, Class E-2 and Class E-3 Common Stock will be entitled to distributions, together with the Class A Common Stock, in the event of a liquidation, dissolution or winding up of the affairs of the Company, pro rata based on the aggregate number of shares of all such classes outstanding on the record date for such dividend or distribution, provided, however, that the holders of Class E-1, E-2 and E-3 Common Stock shall only be entitled to receive such distributions if the conditions to conversion of Class E-1, E-2 or

E-3 Common Stock, as applicable, have been satisfied. Anything contained in this paragraph D to the contrary notwithstanding, the rights of the Class E-1, Class E-2 and Class E-3 Common Stock to share in the proceeds of any acquisition of the Company or merger with or into another entity, shall be subject to the provisions of paragraph F.

E. Conversion.

(1) Each share of Class E-1 Common Stock will be automatically converted into one share of Class A Common Stock, and the holder thereof will receive a certificate representing the number of shares of Class A Common Stock into which such class was converted, if, and only if, any one or more of the following conditions is/are met:

(a) the Company's Minimum Pretax Income is at least $8.0 million for any fiscal year of the Company ending on June 30, 1996, 1997, 1998 or 1999; or

(b) the Minimum Pretax Income is at least $10.3 million for the fiscal year ending on June 30, 2000; or

(c) during the period ending 18 months following the Effective Date of the Public Offering, the Bid Price per share of the Company's Class A Common Stock shall average in excess of the initial public offering price of the Units in the Public Offering multiplied by 2.5, (subject to adjustment in the

event of any stock splits, reverse stock splits or other similar events) for 30 consecutive business days; or

(d) during the period commencing 18 months following the Effective Date of the Public Offering and ending 36 months after the Effective Date, the Bid Price per share of the Company's Class A Common Stock shall average in excess of the initial public offering price of the Units in the Public Offering multiplied by 3.35 (subject to adjustment in the event of any stock splits, reverse stock splits, or other similar events) for 30 consecutive business days; or

(e) the Company is acquired by or merged with or into another entity during either of the periods referred to in (c) or (d) above and as a result thereof, the holders of the Class A Common Stock receive per share consideration (after giving effect to the conversion of the Class E-1 Common Stock) equal to or greater than the respective Bid Price amounts set forth in (c) or (d) above, respectively, as applicable.

(2) Each share of Class E-2 Common Stock will be automatically converted into one share of Class A Common Stock, and the holder thereof will receive a certificate representing the number of shares of Class A Common Stock into which such class was converted, if, and only if, one or more of the following conditions is/are met:

(a) the Minimum Pretax Income is at least $10.9 million during any fiscal year ending on June 30, 1996, 1997, 1998 or 1999; or

(b) the Minimum Pretax Income is at least $14.0 million during the fiscal year ending on June 30, 2000; or

(c) the Company is acquired by or merged with or into another entity during either of the periods referred to below and as a result thereof holders of the Class A Common Stock of the Company (after giving consideration to the conversion of the Class E-1 Common Stock and Class E-2 Common Stock) receive per share consideration equal to or greater than: (i) the initial public offering price of the Units in the Public Offering multiplied by 3.60 (subject to adjustment in the event of any stock splits, reverse stock splits, or other similar events), during the 18-month period commencing on the Effective Date; or, (ii) the initial public offering price of the Units in the Public Offering multiplied by 4.6 (subject to adjustment in the event of any stock splits, reverse stock splits, or similar events) during the period commencing 18 months from the Effective Date and ending 36 months after the Effective Date.

(3) Each share of Class E-3 Common Stock will be automatically converted into one share of Class A Common Stock, and the holder thereof will receive a certificate representing the number of shares of Class A Common Stock into which such class was converted, if, and only if, one or more of the following conditions are met:

(a) the Company's Minimum Pretax Income is at least $28 million for any fiscal year ending June 30, 1996, 1997, 1998, 1999 and 2000; or

(b) the Company is acquired by or merged with or into another entity during either of the periods referred to below and as a result thereof holders of Class A Common Stock of the Company receive per share consideration (after giving effect to the conversion of the Class E-1, Class E-2 and Class E-3 Common Stock) equal to or greater than: (i) the initial public offering price of the Units in the Public Offering multiplied by 6 (subject to adjustment in the event of any stock splits, reverse stock splits or similar events), during the 18-month period commencing on the Effective Date; or (ii) the initial public offering price of A Units in the Public Offering multiplied by 8 (subject to adjustment in the event of any stock splits, reverse splits or similar events), during the period commencing 18 months from the Effective Date and ending 36 months after the Effective Date.

F. Distributions on Merger or Acquisition.

The Class E-1, E-2 and E-3 Common Stock shall be entitled to receive distributions of cash, properties or securities in the event the Company is acquired or merged with or into another entity on the following terms:

(a) If the merger or acquisition proceeds are sufficient to pay the Class A Common Stock outstanding prior to such event up to the applicable per share amount set forth in

paragraphs 3.E(1)(e), 3.E(2)(c) or 3.E(b), as applicable, the applicable Class or Classes of E Common Stock shall participate pro rata based on the aggregate number of shares of such classes outstanding on the record date for such dividend or distribution in the balance remaining up to the extent of the applicable Bid Price per share amount; and

(b) If the aggregate proceeds are sufficient to pay the holders of the Class A Common Stock and the applicable Class E Common Stock the full per share amount set forth in paragraphs 3.E(1)(e), 3.E(2)(c) or 3.E(3)(b), then the applicable Class E Common Stock will be converted in accordance with paragraphs 3.E(1)(e), 3.E(2)(c) and 3.E(3)(b), and distributions will be made to the holders thereof with respect to the shares of Class A Common Stock issuable on such conversion.

4. Redemption.

(a) If on September 30, 2000, none of the conditions to conversion of the Class E-1 Common Stock, the Class E-2 Common stock or the Class E-3 Common Stock, as applicable, shall have been satisfied, then such class or classes of Common Stock shall be redeemed by the Company at a price per share of $.0001 and cancelled without further obligation to the holder thereof. From and after September 30, 2000, in the event that none of the conditions to conversion of the Class E-1 Common Stock, the Class E-2 Common Stock or the Class E-3 Common Stock, as applicable, were satisfied at the Effective Date, no further right with respect to Class E Common Stock, which is thereby cancelled, or with respect

to any other cash, property or securities previously issued with respect thereto.

(b) Solely for the purpose of issuance upon conversion of the Class E-1, E-2 or E-3 Common Stock as herein provided, the Company shall, at all times, reserve and keep available out of its authorized but unissued shares of Class A Common Stock, such number of shares of Class A Common Stock as are then issuable upon the conversion of all outstanding shares of Class E Common Stock.

5. No Transfer. No person holding shares of Class E-1, E-2 or E-3 Common Stock of record may transfer such shares, except by testamentary disposition or by operation of law, and any purported transfer other than as permitted by the preceding clause shall be ineffective, null and void.

6. Registration. Shares of Class E-1, E-2 or E-3 Common Stock shall be registered in the names of the beneficial owners thereof and not in "street" or "nominee" name. For this purpose, a "beneficial owner" of any shares of Class E-1, E-2 or E-3 Common Stock shall mean a person who, or any entity which, possesses the power, either singly or jointly, to direct the voting or disposition of such shares. The Company shall note on the certificates for shares of Class E-1, E-2 or E-3 Common Stock the restrictions on transfer and registration.

7. Return to Authorized Common Stock. Any authorized and unissued shares of Class E-1, E-2 and E-3 Common Stock may be returned to authorized Class A Common Stock, $.01 par value.

8. <u>Class A, E-1, E-2 and E-3 Common Stock</u>. Any shares of Class E-1, Class E-2 or Class E-3 Common Stock that are converted to Class A Common Stock pursuant to the provisions of paragraphs 3.E(1), 3.E(2) and 3.E(3) or redeemed pursuant to the provisions of paragraph 4(2) shall be returned to authorized Class A Common Stock, $.01 par value.

IN WITNESS WHEREOF, this Certificate of Designation has been duly authorized by the Board of Directors and executed by the Chairman and President of the Company and attested to by the Secretary of the Company this 9th day of November, 1995.

LIGHTPATH TECHNOLOGIES, INC., a Delaware corporation

By: [signature]
Leslie A. Danziger
Its: Chairman and President

Attested to this 9th day of November, 1995.

By: [signature]
Louis P. Wagman,
Its: Secretary

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 4.4 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 DGCL for additional information.

General

Our authorized capital stock consists of 55,000,000 shares, divided into 50,000,000 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 50,000,000 shares of Common Stock authorized in our Certificate of Incorporation, our Board has designated 44,500,000 shares as Class A common stock, par value $0.01 per share (the “Class A Common Stock”). As of September 9, 2020, 26,012,831 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 9, 2020, we have reserved for issuance 2,319,851 shares of our Class A Common Stock underlying outstanding restricted stock units, 762,391 shares of our Class A Common Stock for issuance upon the exercise of outstanding stock options, 930,326 shares of our Class A Common Stock for issuance under the 2018 Stock and Incentive Compensation Plan, and 303,294 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 will be exercisable only if a person or group acquires twenty percent (20%) or more of the Class A Common Stock or announces a tender offer, the consummation of which would result in ownership by a person or group of twenty percent (20%) or more of the Class A Common Stock. As of September 9, 2020, no such triggering event has occurred. If, in the future, any shares of Series D Preferred Stock are issued, the stockholders of Series D Preferred Stock are entitled to one vote for each share held; 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.

Series D Participating Preferred Stock Purchase Rights

On February 25, 1998, our Board declared a dividend distribution of a right to purchase one share of Series D Participating Preferred Stock (the “Rights”) for each outstanding share of Class A Common Stock, which dividend distribution was paid on May 1, 1998. The Rights are designated to guard against partial tender offers and other abusive and coercive tactics that might be used in an attempt to gain control of us or to deprive our stockholders of their interest in our long-term value. These Rights seek to achieve these goals by forcing a potential acquirer to negotiate with our Board (or go to court to try to force the Board to redeem the Rights), because only our Board can redeem the Rights and allow the potential acquirer to acquire our shares without suffering very significant dilution. However, these Rights also could deter or prevent transactions that stockholders deem to be in their interests, and could reduce the price that investors or an acquirer might be willing to pay in the future for shares of our Class A Common Stock.

Options

As of September 9, 2020, we had 762,391 shares of our Class A Common Stock underlying stock options outstanding, having a weighted-average exercise price of approximately $1.66 per share.

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

In addition to the Rights, 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.

- *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.

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.

AMENDMENT TO EMPLOYMENT LETTER

Joseph J. Gaynor ("Gaynor") and LightPath Technologies, Inc. ("LightPath") (jointly "the Parties"), hereby agree to amend the June 10, 2008, Employment Letter ("Employment Letter") as follows:

1. The Parties agree that these limited amendments do not affect any other provision in the Employment Letter and do not act as a waiver of any other right or obligation of the Parties in the Employment Letter.

2. LightPath and Gaynor agree to the following amendment to Section 1 of the Employment Letter, which will replace Section 1 in its entirety:

   As of March 9, 2020, your position will change from President and Chief Executive Officer to Consultant for LightPath. You shall have the responsibilities and duties as directed by the Board of Directors ("the Board"), and you will report directly to the Board. As Consultant, pursuant to Section 2, you will have no expectation of employment through June 30, 2020 as an at-will employee. If employment continues through June 30, 2020, you acknowledge and agree that your employment will terminate on June 30, 2020, unless otherwise extended in writing by the Chairman of the Board.

3. Assuming Gaynor remains employed by LightPath until June 30, 2020, the Parties acknowledge that Gaynor's separation from employment on June 30, 2020, will be treated as a voluntary Retirement. For purposes of the Employment Letter, Gaynor's separation from employment on June 30, 2020, qualifies as a Resignation pursuant to Section 5(c) of the Employment Letter and Gaynor acknowledges and agrees he will not be entitled to any severance.

4. LightPath agrees that Gaynor's retirement at or near the end of the current fiscal year will not cause a forfeiture of the 2020 annual incentive bonus award. Any award earned based on actual performance for the 2020 fiscal year shall be paid in full or prorated, as determined by the Compensation Committee, without any deduction therefrom other than routine tax and similar permitted withholdings, at the same time as such award is paid to other individuals still employed by LightPath. In addition the parties agree Exhibit "A" attached hereto contains an itemized list of all incentive stock options and restricted stock units granted to Gaynor as of March 9, 2020.

5. All of the benefits and obligations set forth in Section 4 of the Employment Letter are void as of March 9, 2020, and LightPath and Gaynor shall treat Section 4 as if it was not included in the Employment Letter. This amendment to the Employment Letter will not affect the numbering of any other section therein.

LightPath Technologies, Inc.

/s/ J. James Gaynor	/s/ Robert Ripp
Joseph J. Gaynor	By: Bob Ripp
	Its: Chairman of the Board
Dated: March 17, 2020	Dated: March 13, 2020

Exhibit 21.1

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

EXHIBIT 23.1

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 and 333-223028) and Form S-1 (No. 333-213860) of LightPath Technologies, Inc., of our report dated September 10, 2020, relating to the consolidated financial statements, which appear in this Annual Report on Form 10-K.

MSL, P.A.

Orlando, Florida
September 10, 2020

Exhibit 24

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that the undersigned constitutes and appoints Shmuel Rubin and Donald O. Retreage, Jr., 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, 2020, 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 9th day of September, 2020 by the following persons.

/s/ Robert Ripp	/s/ Shmuel Rubin
Robert Ripp	Shmuel Rubin
/s/ Sohail Khan	/s/ Craig Dunham
Sohail Khan	Craig Dunham
/s/ Steven Brueck	/s/ Louis Leeburg
Steven Brueck	Louis Leeburg
/s/ M. Scott Faris	/s/ Joseph Menaker
M. Scott Faris	Joseph Menaker
/s/ Darcie Peck	
Darcie Peck	

Exhibit 31.1

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, 2020 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 10, 2020

/s/ Shmuel Rubin
Shmuel Rubin
President and Chief Executive Officer

Exhibit 31.2

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

I, Donald O. Retreage, Jr., certify that:

1. I have reviewed this annual report on Form 10-K for the year ended June 30, 2020 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 10, 2020

/s/ Donald O. Retreage, Jr.
Donald O. Retreage, Jr.
Chief Financial Officer

Exhibit 32.1

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, 2020 (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 10, 2020

/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, 2020 (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 10, 2020

/s/ Donald O. Retreage, Jr.
Donald O. Retreage, Jr.
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.