

# SECURITIES & EXCHANGE COMMISSION EDGAR FILING

## LIGHTPATH TECHNOLOGIES INC

**Form: 10-K**

**Date Filed: 2018-09-13**

Corporate Issuer CIK: 889971

# 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, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 000-27548

## LIGHTPATH TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation or organization)

86-0708398

(I.R.S. Employer Identification No)

<http://www.lightpath.com>

2603 Challenger Tech Court, Suite 100

Orlando, Florida 32826

(Address of principal executive offices, including zip code)

(407) 382-4003

(Registrant's telephone number, including area code)

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

None  
(Title of each class)

None  
(Name of each exchange on which registered)

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

Class A Common Stock, \$.01 par value  
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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). YES  NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 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 \$47,403,296 as of December 31, 2017.

As of September 10, 2018, the number of shares of the registrant's Class A Common Stock outstanding was 25,773,605.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for the Fiscal 2019 Annual Meeting of Stockholders are incorporated by reference in Part II and Part III.

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**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, 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

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. We 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. Our products are incorporated into a variety of applications by our 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. 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 ground and polished and CNC ground lenses and assemblies* using short (“SWIR”), mid (“MWIR”) and long (“LWIR”) wave materials imaging are used in applications for 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 autonomous vehicles, such as fork lifts and other automated warehouse equipment.

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 39,000 square foot 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.

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 July 2018, we announced plans to relocate this manufacturing facility to our existing facilities in Orlando, Florida and Riga, Latvia. We expect the relocation to occur in phases through the end of fiscal 2019. 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”). See Note 3, Acquisition of ISP Optics Corporation, to the Consolidated Financial Statements, for additional information.

## Product Groups and Markets

### Overview

In 2015, we organized our business based on five product groups: low volume precision molded optics (“LVPMO”), high volume precision molded optics (“HVPMO”), infrared products, specialty products, and non-recurring engineering (“NRE”). Our LVPMO product group consists of precision molded optics with a sales price greater than \$10 per lens and is usually sold in smaller lot quantities. Our HVPMO product group consists of precision molded optics with a sales price of less than \$10 per lens and is usually sold in larger lot quantities. Our infrared product group is comprised of both molded and turned lens and assemblies and includes all of the products offered by ISP. Our specialty product group is comprised of value-added products, such as optical subsystems, assemblies and collimators. Our NRE product group consists 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. At the beginning of fiscal 2019, we combined the LVPMO and HVPMO product groups into a single precision molded optics (“PMO”) product group. In addition, the NRE product group will now be added to the specialty product group. Accordingly, beginning with our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, we will present three product groups: PMO, infrared, and specialty products.

We currently serve the following major markets: industrial, commercial, defense, medical, and telecommunications. Within our product groups, we have various applications that serve these major markets. For example, our HVPMO lenses are typically used in industrial tools, especially in China. Our infrared products can also be used in various applications within our major markets. Currently, sales of our infrared products are primarily for customers in the industrial market that use thermal imaging cameras. Our infrared products can also be used for gas sensing devices, spectrometers, night vision systems, automotive driver systems, thermal weapon gun sights, and infrared counter measure systems, among others.

Within the larger overall markets, which are estimated to be in the multi-billions of dollars, we believe there is a market of approximately \$1.7 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 customer’s orders, as well as unaffiliated companies that offer our products for sale in their catalogs.

### Product Groups

The following further discusses the various products we offer and certain growth opportunities we anticipate for each such product.

**LVPMO and HVPMO Product Groups.** Aspheric lenses are known for their optimal performance. Aspheric lenses simplify and shrink optical systems by replacing several conventional lenses. However, aspheric lenses are 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.

In recent years, sales of both our LVPMOs and HVPMOs have increased, but a slowdown in the telecommunications market caused a decrease in revenue generated by our LVPMO and HVPMO product groups for fiscal 2018, as compared to fiscal 2017. We continue to expect growth for the next several years, as indications are that we have reached what appears to be the trough of the downward cycle for the telecommunications market. We believe we are nearing the beginning of a multi-year growth cycle of the optical market. This multi-year growth cycle is driven by four major trends: data centers; digital video distribution; wireless broadband; and machine-to-machine interface. Cloud computing has caused a shift in enterprise technology with increased spending for software-as-a-service (“SAAS”) and infrastructure-as-a-service (“IAAS”) capital investments. Delivery of applications and technology using SAAS or IAAS requires larger and faster network bandwidth. The explosion of mobile devices, which includes smartphones and tablet devices, is also requiring the expansion of network bandwidth as users are receiving and transferring larger amounts of data via their mobile devices. By 2021, it is estimated that there will be 1.5 mobile devices per capita. It is also expected that there will be approximately 11.6 billion mobile-connected devices by 2021, including machine-to-machine (“M2M”) modules, exceeding the world’s projected population of 7.8 billion. Individuals are also streaming more video on their mobile devices or through their smart TVs. This type of video distribution, which is estimated to be 80% of all network traffic by 2019, is creating a huge demand for larger and faster bandwidth. Finally, machine-to-machine connection technology allows wireless and wired systems to communicate with other devices of the same type. This type of networking often requires bandwidth in order for the machines to communicate with each other. All of these trends require the expansion of bandwidth, and thus, the growth of optical communication networks. Our products, such as our precision molded optical lenses, can be used as a component in optical communication networks. We also anticipate growth in our precision molded aspheres product revenues as we add new product lenses and applications for a variety of markets and industries, including laser tools, telecom transceivers, micro-projectors, scientific and bench top lasers, range finders, medical devices, barcode scanners and laser based spectrometers.

- **LVPMOs.** The growth we experienced in our LVPMO business in previous years was driven by a variety of market applications, such as medical endoscopes, medical flow cytometers, scientific and bench-top lasers, laser based spectrometers, military telecom, and telescopic weapon sights. These products have precision specifications and 100% testing to verify that our lenses conform to a higher level of performance than most of the competition in these markets.
- **HVPMOs.** The growth we experienced in our HVPMO business in previous years was driven by market applications supporting mostly the laser diode applications for high volume markets in laser tools, range finders, laser gun sights, barcode scanners, and micro-projectors. The same basic tooling used for high precision in the LVPMO applications allows us to realize a competitive advantage for high volume production that benefits the end customer, while maintaining low price targets. Markets for laser diode applications are expected to grow substantially in the next few years as applications such as LIDAR, which uses light and radar for distance tracking and speed detection, headlights for automobiles, and many other related disciplines begin to rely more and more on laser technology. There are also indications that the telecommunications market will recover, particularly as the access networks around the world are being upgraded to accommodate the conversion to 5G applications, which will provide us with opportunities for growth.

**Infrared Product Group.** 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 which cannot be effectively molded. ISP gives us the ability to meet complex optical challenges that demand more exotic optical substrate materials that are non-moldable.

Overall, we anticipate growth for infrared optics and increased requirements for systems requiring aspheric optics. Infrared systems, which include thermal imaging cameras, gas sensing devices, spectrometers, night vision systems, automotive driver awareness systems, such as blind spot detection, thermal weapon sights, and infrared counter measure systems, represent a market that is forecasted to grow from \$4.8 billion in 2017 to \$7.3 billion by 2023, at a compound annual growth rate of 7.18% during the forecast period. As infrared imaging systems become widely available, the cost of optical components needs to decrease before the market demand will increase. 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 have a growing group of specialty 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. We expect growth from defense communications 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**

Our strategy is to leverage our technology, know-how, established low cost manufacturing capability and partnerships to grow our business. We plan to accomplish this growth through the implementation of the following objectives:

- **Leverage our Leadership to Drive Organic Growth.** We plan to continue to capitalize on our global operations network, distribution infrastructure, and technology to pursue global growth. We will focus our efforts on those geographic areas and end products that we believe offer the most attractive growth and long-term profit prospects.
- **Focus on Cash Flow Generation.** Our goal is to focus on cash flow generation and return on invested capital through the continuing optimization of our cost structure, improvement in working capital and supply chain efficiencies, and a disciplined approach to capital expenditures. We have a proven track record of mitigating fixed cost inflation with cost saving actions and productivity improvements. We intend to continue to identify incremental cost saving opportunities based in large part on benchmarks of industry-leading performance and productivity improvements by utilizing our engineering and manufacturing technology expertise and partnerships with low cost producers. Our goal is to maintain a cost structure that positions us favorably to compete and grow. We intend to continue to upgrade our customer and product mix by adding products that move up the supply chain by offering assemblies that use our lenses, thereby increasing our sales of value-added, differentiated products, and achieving premium pricing to improve margins and enhance cash flow.

- **Increase Customer Base and Continue to Develop New Products.** A key component of our strategy is to produce innovative, high-performance products that offer enhanced value propositions to our customers at competitive prices. Our goal is to continually work closely with our customers to provide solutions and productions that optimize their products. This market-driven product development enables us to offer a high-quality product portfolio to our customers and provide our business with the ability to respond quickly and efficiently to changes in market demands.
- **Deepen Our Presence in Emerging Markets.** Emerging markets are a strategic priority for our business. We are well positioned not only to leverage our strong market positions in mature but highly sophisticated markets in North America and Europe, but also to participate in the expected growth of emerging markets in Asia and Eastern Europe. We believe that improving living standards and growth in GDP across emerging markets are combining to create increased demand for our products. We expect to capitalize on this growth opportunity by expanding our customer base and local capabilities in order to increase our market share across emerging markets, especially in China. To accelerate our penetration of these markets and maintain our competitive cost position, we may develop relationships with leading local partners, especially in businesses where participation in the fast-growing Chinese market is particularly important for long-term sustainable growth. For example, we are well positioned to leverage our strong production technology in the Chinese market as a result of an increasing percentage of aerospace, automotive, semiconductor, electronics, and telecommunications manufacturing transitioning to China.
- **Continue to Drive Operational Excellence and Asset Efficiency.** Operational excellence, which includes a commitment to safety, environmental stewardship, and improved reliability, is key to our future success. We continually evaluate our business to identify opportunities to increase operational efficiency throughout our production facilities, with a focus on maintaining operational excellence, reducing costs, and maximizing asset efficiency. We intend to continue focusing on increasing manufacturing efficiencies through selected capital projects, process improvements, and best practices in order to lower unit costs. We will also carefully manage our portfolio and take appropriate actions to address product lines that face challenging market conditions and do not generate returns on invested capital that we believe are sufficient to create long-term shareholder value.
- **Drive Organizational Alignment.** We believe that maintaining alignment of the efforts of our employees with our overall business strategy and operational excellence goals is critical to our success. We have outstanding people and assets and, with the commitment to values of safety, customer appreciation, simplicity, collective entrepreneurship, and integrity, we believe that we can maintain our competitiveness and help achieve our operational excellence and asset efficiency strategic objectives.

## 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 created an executive structure with three direct reporting lines: Operations, Sales and Marketing, and Finance. Our Sales and Marketing organization is led by the Vice President of Corporate Business Development, as well as our National Sales Manager. We also combined the organizations supporting our aspheric visible lens products and our infrared products.

*Sales Team & Channel.* We have 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](http://www.lightpath.com) and [www.ispoptics.com](http://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.* We display our product line additions and enhancements at one or more trade shows each year. For example, we participated in several United States based shows including Society of Photographic Instrumentation Engineers (“SPIE”) Photonics West in January 2018 and SPIE Defense, Security and Sensing in April 2018. In addition, we exhibit at the Laser World of Photonics in Munich, Germany to maintain our European presence. This strategy underscores our strategic directive of broadening our base of innovative optical components and assemblies. These trade shows 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 specialty 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, particularly in China, provides us with a competitive edge and assists us in securing business. Additionally, we believe that we offer value to some customers as a second or backup supply source in the United States should they be unwilling to commit to purchase their entire 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.

**LVPMOs and HVPMOs Product Groups.** Our LVPMO 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 lenses compete with lens systems comprised of multiple conventional lenses. Machined aspheric lenses compete with our molded glass aspheric lenses, which are part of our HVPMO product group. Aspheric lens system manufacturers include Panasonic Corporation, Alps Electric Co., Ltd., Hoya Corporation, as well as newer competitors from China and Taiwan, such as E-Pin Optical Industry Co., Ltd., and Kinik Company. 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 over plastic or plastic/glass hybrid lenses.

**Infrared Product Group.** Our infrared aspheric optics compete with optical products produced by Janos Technology LLC, Ophir Optronics Solutions, Ernst Leitz Canada (ELCAN) Optical Technologies, 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 diamond turned aspheres from germanium are more expensive to produce in high volumes and time consuming to manufacture. We believe our low cost, high volume lens business technology combined with our recently added traditional polishing and diamond turning capabilities enables us to compete with the other manufacturers of traditional 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 Yunnan KIRP-CH Photonics Co., Ltd.. We believe that our optical design expertise, 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. A specific advantage over Umicore, a foreign company, is that the infrared market is highly dependent on the United States defense industry, which prefers to purchase from United States based companies such as LightPath.

## **Manufacturing**

**Facilities.** Our manufacturing is largely performed in our 26,000 square foot production facility in Orlando, Florida (the “Orlando Facility”), in LPOIZ’s 39,000 square foot production facility in Zhenjiang, China and in ISP Latvia’s 23,000 square foot production facility in Riga, Latvia. LPOI sales and support functions occupy a 1,900 square foot facility in Shanghai. ISP also has an approximately 13,000 square foot facility in Irvington, New York that functions as its operations headquarters, providing manufacturing capabilities, optical coatings, optical and mechanical design, assembly and testing, as well as some engineering, administrative and sales functions. We are in the process of adding approximately 12,000 square feet of additional manufacturing space near our existing Orlando Facility, which we expect to complete during the second quarter of fiscal 2019. We will be relocating the manufacturing operations of ISP’s Irvington Facility to our existing Orlando Facility and Riga Facility. The additional space being added in Orlando will accommodate this relocation. The relocation is expected to be completed in phases through the end of fiscal 2019. Some of the manufacturing operations currently performed in the Irvington Facility will transition to our Zhenjiang Facility.

Our Orlando Facility and LPOI's Zhenjiang Facility feature areas for each step of the manufacturing process, including coating work areas, preform manufacturing and a clean room for pressing and integrated assembly. The Orlando and Zhenjiang Facilities include new product development laboratories and space that includes development and metrology equipment. The Zhenjiang Facility has anti-reflective and infrared coating equipment to coat our lenses in-house. ISP's Irvington Facility and ISP Latvia's Riga Facility include 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 will complete the additional space in Orlando and the relocation of the Irvington Facility's manufacturing operations. 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 infrared glass, a manufacturing area for our molded glass aspheres, a tooling and machine shop to support new product development, commercial production requirements for our machined parts, the fabrication of proprietary press work stations and mold equipment, and a clean room for our molding and assembly workstations and related metrology equipment. Most recently, in connection with the relocation of the Irvington Facility, we have added a chamber for diamond-like carbon ("DLC") coating in Orlando. LPOI's Zhenjiang Facility features a molded glass aspheres manufacturing area, clean room, machine shop, dicing area, and chambers for coating, including anti-reflective and infrared coatings and related metrology equipment.

ISP's Irvington Facility contains a manufacturing area for diamond turning, coating, lens assembly, and quality control. The facility is equipped with numerous diamond turning machines and accompanying metrology equipment, offering full scale diamond turning capabilities. The facility is also equipped with multiple chambers for various multi-layer coatings and a chamber for DLC coating. A cleaning room and metrology laboratory are also part of the coating area. The lens assembly area is equipped with modulation transfer function ("MTF") stations, lens assembly stations and the latest lens design software.

ISP Latvia's Riga Facility consists of crystal growth, grinding, polishing, diamond turning, quality control departments and a mechanical shop to provide the grinding and polishing departments with the necessary tools. The crystal growth department is equipped with multiple furnaces to grow water soluble crystals. The grinding and polishing departments have numerous 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 Irvington Facilities are ISO 9001:2015 certified. The Riga Facility is ISO 9001:2008 certified. The Zhenjiang Facility is also ISO/TS 1649:2009 certified for manufacturing of optical lenses and accessories used in automobiles. The Orlando, Irvington, and Riga Facilities are also International Traffic in Arms and Regulation ("ITAR") compliant.

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. 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, magnets, 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 possible.

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.

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 United States. 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, 2020

## 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 United States 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 United States 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 2018 and 2017 of approximately \$1.6 million and \$1.2 million, respectively. In fiscal 2018 and 2017, we concentrated our efforts to support existing and new customers in the design and manufacture of items in three of our product lines: HVPMO lenses, LVPMO lenses and infrared products, with emphasis on infrared products in fiscal 2018.

In fiscal 2019, we anticipate focusing our new product development efforts on infrared optics products for imaging and sensing, fiber lasers, spectrophotometry, defense, medical devices, industrial, optical data storage, machine vision, sensors, and environmental monitoring. In addition, we plan on continuing to invest in designing and developing the next generation of our proprietary precision glass molding machines. We currently plan to expend approximately \$1.9 million for new product development during fiscal 2019, which could vary depending upon revenue levels, customer requirements, and perceived market opportunities.

For more difficult or customized products, we bill our customers for engineering services as a non-recurring engineering fee.

## Concentration of Customer Risk

In fiscal 2018, we had sales to three customers that comprised an aggregate of approximately 28% of our annual revenue with one customer at 16% of our sales, another customer at 7% of our sales and the third customer at 5% of our sales. In fiscal 2017, we had sales to three customers that comprised an aggregate of approximately 26% of our annual revenue with one customer at 10% of our sales, another customer at 9% 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. We continue to diversify our business in order to minimize our sales concentration risk.

In fiscal 2018, 58% of our net revenue was derived from sales outside of the United States, with 84% of our foreign sales derived from customers in Europe and Asia. In fiscal 2017, 61% of our net revenue was derived from sales outside of the United States, with 88% of our foreign sales derived from customers in Europe and Asia.

## Employees

As of June 30, 2018, we had 342 employees, of which 331 were full-time equivalent employees, with 85 located in Orlando, Florida, 33 located in Irvington, New York, 87 located in Riga, Latvia, and 126 located in Jiading and Zhenjiang, China. Of our 331 full-time equivalent employees, we have 41 employees engaged in management, administrative, and clerical functions, 21 employees in new product development, 19 employees in sales and marketing, and 250 employees in production and quality control functions. In connection with the relocation of our Irvington Facility into our existing Orlando and Riga Facilities, which we expect will occur in phases throughout fiscal 2019, we anticipate that current Irvington employees will either be relocated to our Orlando or Riga Facilities or that we will hire additional employees at these facilities. Any other employee additions or terminations over the next twelve months will be dependent upon the actual sales levels realized during fiscal 2019. 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

**We have a history of losses.** We achieved net income of \$1.1 million for fiscal 2018 and \$7.7 million for fiscal 2017; however, we have a history of losses in previous periods. As of June 30, 2018, we had an accumulated deficit of approximately \$195 million. We may incur losses in the future if we do not achieve sufficient revenue to maintain profitability. We expect revenue to grow generating additional sales through promotion of our infrared products and cost reduction efforts of our precision molded products, 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 2018, we had sales to three customers that comprised an aggregate of approximately 28% of our annual revenue with one customer at 16% of our sales, another customer at 7% of our sales, and the third customer at 5% of our sales. In fiscal 2017, we had sales to three customers that comprised approximately 26% of our annual revenue, with one customer at 10% of our sales, another customer at 9% of our sales, and the third customer at 7% of our sales. Part of our continuing strategy has been to gain key customer relationships of more significance and impact to generate higher revenues at lower costs. This strategy has met with some success; however, we believe our operating results will continue to be notably dependent on sales to a relatively small number of significant customers. 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 2018, 58% of our net revenue was derived from sales outside of the United States, with 84% of our foreign sales derived from customers in Europe and Asia. In fiscal 2017, approximately 61% of our net revenues were from sales to international customers, with 88% of 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 United States;
- 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.

***Rising threats of international tariffs, including tariffs applied to goods traded between the United States and China, could materially and adversely affect our business and results of operations.*** Since the beginning of 2018, there has been increasing discussion, in some cases coupled with legislative or executive action, from several United States and foreign leaders regarding the possibility of instituting tariffs against foreign imports of certain materials. More specifically, in March and April of 2018, the United States and China have applied tariffs to certain of each other's exports. The institution of trade tariffs both globally and between the United States and China specifically carries the risk of negatively impacting China's overall economic condition, which could have negative repercussions on 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 United States President, members of his Administration, and other public officials, including members of the current United States Congress, have made public statements indicating possible significant changes in United States trade policy and have taken certain actions that may impact United States trade policy, including new or increased tariffs on certain goods imported into the United States. Further, changes in United States 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, United States 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.

***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 time 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 force 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 expand our sales operations, particularly in China, we may not be able 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 much 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 financial stability.*** 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 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 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 five product groups: LVPMOs, HVPMOs, infrared products, specialty products, and NREs. In fiscal 2018, sales of infrared products represented approximately 50% of our net revenues. In the future, we expect a larger percentage of our revenues to be generated from sales of our infrared products, particularly sales of ISP's infrared products. Demand for products in the optical market has declined materially in recent years. Continued and expanding market acceptance of these 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. 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 United States 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 2018 and 2017, we recognized gains of approximately \$141,000 and \$78,000 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 United States. Some of those materials, priced in non-dollar currencies, fluctuate in price due to the value of the United States 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 United States dollar decreases, the cost of foreign sourced materials could increase, which would adversely affect our financial condition and results of operations.

***A significant portion of our cash is generated and held outside of the United States. The risks of maintaining significant cash abroad could adversely affect our cash flows and financial results.*** During fiscal 2018, approximately 50% of our cash was held abroad. We generally consider unremitted earnings of our subsidiaries operating outside of the United States to be indefinitely reinvested and it is not our current intent to change this position. Cash held outside of the United States 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 in China must equal at least 150% of the registered capital. As of June 30, 2018, we had retained earnings in China of \$1.9 million and we need to have retained earnings of \$11.3 million before repatriation will be allowed. 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 United States, 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 United States Congress on December 20, 2017 and signed into law on December 22, 2017. This legislation makes significant changes to the United States Internal Revenue Code of 1986, as amended (the "IRC"). Such changes include a reduction in the corporate tax rate from 35% to 21% and limitations on certain corporate deductions and credits, 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.

While we have provided for the effect of the TCJA in our consolidated financial statements, the final impacts of the TCJA could be materially different from our expectations. For example, adverse changes in the underlying profitability and financial outlook of our operations or changes in tax law could lead to changes in our valuation allowances against deferred tax assets on our consolidated balance sheets, which could materially affect our results of operations. The U.S. Treasury Department, the Internal Revenue Service (the "IRS"), and other standard-setting bodies could interpret or issue guidance on how provisions of the TCJA will be applied or otherwise administered that is different from our interpretation. The TCJA may also impact our repatriation strategies in the future. Finally, 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.

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 all 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 these 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, Irvington, New York, 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 July 2022, the Irvington Facility is subject to a lease that expires in September 2020, the Riga Facility is subject to a lease that expires in December 2019, and the Zhenjiang Facility is subject to two leases that expire in March 2019 and December 2021. 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, 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, such as 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.*** The decision of the United Kingdom to exit from the European Union (generally referred to as "BREXIT") could cause disruptions to and create uncertainty surrounding our business, including affecting our relationships with existing and potential customers, suppliers, and employees. 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 and expensive 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 United States 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. The following schedule presents the approximate square footage of our facilities as of June 30, 2018:

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; 1 floor of 1 building used for administrative offices and manufacturing
Zhenjiang, China	39,000	Leased; 1 building used for manufacturing
Shanghai, China	1,900	Leased; 1 suite used for sales, marketing and administrative offices
Riga, Latvia	23,000	Leased; 2 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 NASDAQ Capital Market ("NCM") under the symbol "LPTH".

The following table sets forth the range of high and low bid prices for our Class A common stock for the periods indicated, as reported by the NCM. The quotation information below reflects inter-dealer prices, without retail mark-up, markdown or commission, and may not represent actual transactions. The closing ask price on June 30, 2018 was \$2.30 per share.

	Class A Common Stock	
	High	Low
<b>Fiscal Year Ended June 30, 2018</b>		
Quarter ended June 30, 2018	\$ 2.84	\$ 2.29
Quarter ended March 31, 2018	\$ 4.08	\$ 2.03
Quarter ended December 31, 2017	\$ 2.64	\$ 2.01
Quarter ended September 30, 2017	\$ 2.39	\$ 1.95

#### Fiscal Year Ended June 30, 2017

Quarter ended June 30, 2017	\$ 3.31	\$ 2.35
Quarter ended March 31, 2017	\$ 3.22	\$ 1.42
Quarter ended December 31, 2016	\$ 1.81	\$ 1.21
Quarter ended September 30, 2016	\$ 2.50	\$ 1.47

#### Holder

As of July 30, 2018, we estimate there were approximately 198 holders of record and approximately 11,125 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.*

## Results of Operations

Operating Results for Fiscal Year Ended June 30, 2018 compared to the Fiscal Year Ended June 30, 2017:

### Revenues:

Revenue for fiscal 2018 totaled approximately \$32.5 million, an increase of \$4.2 million, or 15%, as compared to approximately \$28.4 million for fiscal 2017. The increase in revenue is primarily attributable to an approximately \$6.8 million increase, or 73%, in revenues generated by sales of our infrared products, offset by decreases in sales of both our HVPMO and LVPMO lenses due to a decrease in demand from customers in the telecommunications industry. Sales to customers in the telecommunications industry decreased by approximately \$3.1 million in fiscal 2018, as compared to fiscal 2017. Sales of infrared products primarily consisted of revenues generated by sales of ISP's infrared products. Fiscal 2018 includes the financial results of ISP for the full fiscal year, whereas fiscal 2017 only included the financial results of ISP for approximately half of the fiscal year.

### Cost of Sales and Gross Margin:

Gross margin for fiscal 2018 was approximately \$12.5 million, compared to approximately \$14.7 million in the prior year period, a decrease of \$2.2 million, or 15%. Gross margin as a percentage of revenue for fiscal 2018 was 39%, compared to 52% in fiscal 2017. The change in gross margin as a percentage of revenue is primarily attributable to the larger percentage of sales attributable to our infrared products, particularly ISP's infrared products, which have lower gross margins than PMO products, and a decrease in gross margin from PMO products as a result of the decrease in sales of telecommunications products, which typically have higher gross margins than many of our other PMO products. Gross margin for fiscal 2018 was also unfavorably impacted by foreign currency fluctuations, and the rising cost of germanium, a key component in many of our infrared lenses. Revenues generated by ISP, and the associated cost of sales, were not included until the end of the second quarter of fiscal 2017. Total cost of sales was approximately \$20.0 million for fiscal 2018, an increase of approximately \$6.3 million, as compared to fiscal 2017. The increase in total cost of sales is primarily due to the increase in volume of sales, particularly as a result of sales attributable to ISP, as well as an increase in overhead expenses during fiscal 2018 associated with capacity expansions in anticipation of future sales growth.

### Selling, General and Administrative Expenses:

Selling, general and administrative ("SG&A") expenses increased by approximately \$570,000 to approximately \$9.2 million in fiscal 2018 as compared to approximately \$8.7 million in fiscal 2017. The increase was primarily attributable to the addition of ISP's SG&A costs for the entire fiscal year, compared to the prior year in which ISP's SG&A costs were not included until the end of the second quarter of fiscal 2017. Specifically, the increase was primarily due to an approximately \$920,000 increase in wages, an approximately \$225,000 increase in travel expenses, and an approximately \$265,000 increase in professional fees, offset by the absence of approximately \$653,000 in expenses incurred during fiscal 2017 in connection with the acquisition of ISP. Additionally, fiscal 2018 does not include any amounts for payment of incentive compensation to our executive officers as the financial targets were not met. We project that our SG&A expenses will increase in fiscal 2019, due to increases in commissions and other related expenses driven by the increase in forecasted sales.

### New Product Development:

New product development costs in fiscal 2018 increased by approximately \$380,000 to approximately \$1.6 million, compared to approximately \$1.2 million in fiscal 2017. This increase primarily consists of an approximately \$310,000 increase in wages, and an approximately \$70,000 increase in patent and other expenses, for projects to expand and enhance our existing products. Currently, we are forecasting a slight increase in new product development spending for fiscal 2019 as compared to fiscal 2018.

### Interest Expense:

Interest expense was approximately \$187,000 for fiscal 2018 as compared to approximately \$413,400 for fiscal 2017. Interest expense for fiscal 2018 was lower due to the full satisfaction on January 16, 2018 (the "Satisfaction Date") of the five-year note in the aggregate principal amount of \$6 million issued by us to the ISP stockholders (the "Sellers Note"), and the reversal of the associated fair value adjustment liability balance as of that date, which resulted in a gain on extinguishment of debt of approximately \$467,000.

Excluding the impact of this gain, interest expense was approximately \$654,000 for fiscal 2018, an increase of \$241,000 as compared to fiscal 2017. The increase is due to the timing of certain acquisition-related loans, for which interest was only included for approximately half of fiscal 2017, as compared to a full year in fiscal 2018. Fiscal 2018 includes a full year of interest on either (i) the acquisition term loan (the "Term Loan"), issued on December 21, 2016 pursuant to the Second Amended and Restated Loan and Security Agreement (the "Amended LSA") with Avidbank Corporate Finance, a division of Avidbank ("Avidbank"), or (ii) the Term II Loan (as defined below), compared to the inclusion of the Term Loan for approximately half of fiscal 2017. The Sellers Note, also issued on December 21, 2016, was fully satisfied on the Satisfaction Date, which decreased interest expense beginning in the third quarter of fiscal 2018. However, because the Sellers Note was included for approximately half of both fiscal 2018 and fiscal 2017, the decreased interest expense in the third quarter of fiscal 2018 did not significantly impact year-over-year results. For additional information regarding the Term Loan, Term II Loan, and Sellers Note, see "Liquidity and Capital Resources" below.

### Other Income (Expense):

In fiscal 2018, we recognized non-cash expense of approximately \$195,000 related to the change in the fair value of warrant liability of our warrants issued in connection with our June 2012 private placement (the "June 2012 Warrants"), compared to non-cash expense of approximately \$467,500 in fiscal 2017. The change in the fair value of the June 2012 Warrants was not impacted by our actual operations but was instead strongly tied to the change in market value of our Class A common stock. The June 2012 Warrants expired on December 11, 2017; therefore, there was no remaining warrant liability as of that date.

Other income increased by approximately \$135,000 to approximately \$241,000 in fiscal 2018, as compared to approximately \$106,000 in fiscal 2017, primarily from the impact of the change in foreign exchange rates during the period of time between when we received invoices and paid those invoices and the book value change on our fixed assets and inventory in China and Latvia. We execute all foreign sales from our U.S.-based facilities and inter-company transactions in United States dollars, partially mitigating the impact of foreign currency fluctuations. Assets and liabilities denominated in non-United States currencies, primarily the Chinese Renminbi 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 the years ended June 30, 2018 and 2017, we recognized gains of \$141,000 and \$78,000, respectively, on foreign currency translation.

**Income taxes:**

Income taxes for fiscal 2018 was a benefit of approximately \$827,000, compared to a benefit of approximately \$4.3 million in fiscal 2017. The income tax benefit for fiscal 2018 is attributable to changes in taxation related to certain subsidiaries in China and Latvia, as well as a decrease in the valuation allowance on our U.S. deferred tax assets. The income tax benefit in fiscal 2017 was attributable to a decrease in the valuation allowance recorded against our U.S. deferred tax assets, primarily driven by the \$5.4 million in deferred tax liabilities recorded in conjunction with the acquisition of ISP. This benefit was offset by income tax expense associated with our Chinese subsidiaries and, to a much lesser extent, income taxes attributable to ISP Latvia.

Our Chinese subsidiaries, LPOI and LPOIZ, are governed by the Income Tax Law of the People's Republic of China, which is applicable to privately run and foreign invested enterprises, and which generally subjects such enterprises to a statutory rate of 25% on income reported in the statutory financial statements after appropriate tax adjustments. During fiscal 2018, the statutory rate applicable to LPOIZ decreased from 25% to 15%, in accordance with an incentive program for technology companies in China. This rate change was retroactive to January 1, 2017. Accordingly, the Company recognized a benefit during fiscal 2018 related to this rate change. ISP Latvia is governed by the Law of Corporate Income Tax of Latvia, which is applicable to privately run and foreign invested enterprises, and which, through December 31, 2017, generally subjected such enterprises to a statutory rate of 15% on income reported in the statutory financial statements after appropriate tax adjustments. Effective January 1, 2018, the Republic of Latvia enacted tax reform, which resulted in the recognition of a tax benefit, due to the reduction of the previously recorded net deferred tax liability to zero during fiscal 2018.

**Net Income:**

Net income for fiscal 2018 was approximately \$1.1 million, or \$0.04 basic and diluted earnings per share, respectively, compared to approximately \$7.7 million, or \$0.39 basic and \$0.36 diluted earnings per share in fiscal 2017. The approximately \$6.6 million decrease is primarily due to the approximately \$4.3 million net tax benefit for fiscal 2017, compared to a tax benefit of approximately \$827,000 for fiscal 2018. Excluding these tax differences, the remaining \$3.1 million decrease in net income from fiscal 2017 to fiscal 2018 was primarily driven by the aforementioned decrease in gross margin and increases in operating costs resulting from the inclusion of ISP's costs for a full year, which were only included for approximately half of the prior fiscal year, including an approximately \$623,000 increase in the amortization of intangibles.

Weighted average common shares outstanding increased, primarily as a result of the issuance of 8 million shares of Class A common stock in connection with the acquisition of ISP in December 2017. In fiscal 2018, these shares are included in the weighted average for the full year. In addition, 967,208 shares of Class A common stock were issued in January 2018 in connection with the satisfaction of the Sellers Note.

**Liquidity and Capital Resources**

At June 30, 2018, we had working capital of approximately \$13.8 million and total cash and cash equivalents of approximately \$6.5 million. Approximately \$3.2 million 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 were generated in China as a result of foreign earnings. Before any funds can be repatriated, the retained earnings in China must equal at least 150% of the registered capital. As of June 30, 2018, we had retained earnings of \$1.9 million and we need to have retained earnings of \$11.3 million before repatriation will be allowed. We currently intend to permanently invest earnings from our foreign Chinese operations and, therefore, we have not previously provided for future Chinese withholding taxes on the related earnings. However, if, in the future, we change such intention, we would provide for and pay additional foreign taxes, if any, at that time.

In December 2016, we executed the Amended LSA with Avidbank for the Term Loan in the aggregate principal amount of \$5 million and a working capital revolving line of credit (the "Revolving Line"), with availability of up to \$1 million. The Amended LSA amended and restated that certain Loan and Security Agreement between us and Avidbank dated September 30, 2013, as amended and restated pursuant to that certain Amended and Restated Loan and Security Agreement dated as of December 23, 2014, and as further amended pursuant to that certain First Amendment to Amended and Restated Loan and Security Agreement dated as of December 23, 2015. Also in December 2016, we issued the Sellers Note in the aggregate principal amount of \$6 million to Joseph Menaker and Mark Lifshutz (the "Sellers").

On December 20, 2017, we executed the First Amendment to the Amended LSA (the "First Amendment"). The First Amendment amended, among other items, the maturity date of the Revolving Line from December 21, 2017 to March 21, 2018.

On January 16, 2018, we entered into a Note Satisfaction and Securities Purchase Agreement (the "Note Satisfaction Agreement") with the Sellers with respect to the Sellers Note. Pursuant to the Note Satisfaction Agreement, we and the Sellers agreed to satisfy the Sellers Note in full by (i) converting 39.5% of the outstanding principal amount of the Sellers Note into shares of the Company's Class A common stock, and (ii) paying the remaining 60.5% of the outstanding principal amount of the Sellers Note, plus all accrued but unpaid interest, in cash to the Sellers. As of the Satisfaction Date, the outstanding principal amount of the Sellers Note was approximately \$5.7 million, including accrued but unpaid interest. Accordingly, we made a cash payment of approximately \$3.5 million and issued 967,208 shares of Class A common stock to satisfy the remaining balance of approximately \$2.2 million.

On the Satisfaction Date, we executed the Second Amendment to the Amended LSA (the "Second Amendment"), pursuant to which, Avidbank paid a single cash advance to us in an original principal amount of \$7,294,000 (the "Term II Loan"). The Term II Loan is for a five-year term. The proceeds of the Term II Loan were used to repay all amounts owed with respect to the Term Loan, which was approximately \$4.4 million as of the Satisfaction Date, and the remaining approximately \$2.9 million was used to repay the amounts owing under the Sellers Note. We also used approximately \$600,000 of cash on hand in order to make the aforementioned cash payment of \$3.5 million. As of the Satisfaction Date, the Term Loan and Sellers Note were deemed satisfied in full.

As of June 30, 2018, the amount outstanding under the Term II Loan was approximately \$6.7 million, and there was no amount outstanding of the \$1 million available under the Revolving Line. Costs incurred of approximately \$72,000 were recorded as a discount on debt and will be amortized over the five-year term of the Term Loan. Additional costs of approximately \$60,000 were incurred in conjunction with the Second Amendment and were also recorded as a discount on debt, and the combined costs will be amortized over the five-year term of the Term II Loan. Amortization of approximately \$20,000 and \$7,700 is included in interest expense for the fiscal years ended June 30, 2018 and 2017, respectively.

The Amended LSA contains customary covenants, including, but not limited to: (i) limitations on the disposition of property; (ii) limitations on changing our business or permitting a change in control; (iii) limitations on additional indebtedness or encumbrances; (iv) restrictions on distributions; and (v) limitations on certain investments. Additionally, the Amended LSA requires us to maintain a fixed charge coverage ratio (as defined in the Amended LSA) of at least 1.15 to 1.00 and an asset coverage ratio (as defined in the Amended LSA) of at least 1.50 to 1.00. The fixed charge coverage ratio was amended for the quarters ended March 31, 2018 and June 30, 2018, pursuant to the Third Amendment to the Amended LSA (the "Third Amendment"). As of June 30, 2018, we were not in compliance with the fixed charge coverage ratio; however, Avidbank provided a waiver of compliance pursuant to that certain Fourth Amendment to the Amended LSA, dated September 7, 2018, entered into between us and Avidbank (the "Fourth Amendment").

For additional information, see Note 18, Loans Payable, and Note 19, Note Satisfaction and Securities Purchase Agreement, 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 fiscal 2019 primarily from infrared products, as well as some growth in our precision molded optics and specialty 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 are also benefiting from a substantial increase in revenue-generating opportunities and broader market applications as a result of our investments in technologies that decreased our lens production costs and expanded our production capacity. We believe we can further improve upon our track record of growth – and do so more profitably.

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 Term II Loan.

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 discretionary spending, particularly sales and marketing related. 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 \$1.3 million in fiscal 2018, compared to net cash provided by financing activities of approximately \$14.2 million in fiscal 2017. In fiscal 2017, we received approximately \$5.0 million in proceeds from the Term Loan and approximately \$8.7 million in net proceeds related to the public offering of 8,000,000 shares of our Class A common stock in connection with the acquisition of ISP. We also received net proceeds of approximately \$706,000 from the exercise of June 2012 Warrants in fiscal 2017. In fiscal 2018, net repayments on debt were \$1.8 million, including approximately \$600,000 related to the satisfaction of the Sellers Note. These repayments were offset by net proceeds of approximately \$534,000 from the exercise of the June 2012 Warrants, as well as proceeds from exercises of stock options of approximately \$226,000 during fiscal 2018. As of June 30, 2018 and 2017, we had an accumulated deficit of approximately \$195.2 million and \$196.3 million, respectively.

### *Cash Flows – Operating and Investing:*

Cash flow provided by operations was approximately \$2.6 million for the year ended June 30, 2018, a decrease of approximately \$2.4 million from fiscal 2017. This decrease is primarily the result of the lower gross margin in fiscal 2018 as compared to fiscal 2017, particularly in the fourth quarter. We anticipate improvement in our cash flows provided by operations in future years, over time, based on our forecasted sales growth and anticipated margin improvements based on production efficiencies, including the relocation of our Irvington Facility, offset by marginal increases in SG&A and new product development expenditures.

During fiscal 2018, we expended approximately \$2.5 million for capital equipment, as compared to approximately \$2.2 million during fiscal 2017. In fiscal 2018, we initiated capital leases in the amount of approximately \$760,000 for manufacturing equipment, compared to \$230,000 in fiscal 2017. The majority of our capital expenditures during both fiscal 2018 and fiscal 2017 were related to the purchase of equipment used to enhance or expand our production capacity in alignment with sales growth opportunities, including facility improvements for our Zhenjiang and Riga Facilities. During fiscal 2017, we also expended approximately \$11.8 million for the acquisition of ISP. See Note 3, Acquisition of ISP Optics Corporation, to the Consolidated Financial Statements, for additional information.

We anticipate a lower level of capital expenditures during fiscal 2019; however, the total amount expended will depend on sales growth opportunities and circumstances.

### **How We Operate:**

We have continuing sales of two basic types: occasional 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 United States should they be unwilling to commit to purchase their entire supply of a critical component from foreign merchant production sources.

### **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.

**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 in comparison to the prior year, while we also increased our shipment volume by 15%, compared to the prior year, maintaining our strong booking performance. Our 12-month backlog at June 30, 2018 was approximately \$12.8 million, compared to \$9.3 million as of June 30, 2017. Backlog growth rates for fiscal 2018 and 2017 are:

Quarter	Backlog (\$ 000)	Change From Prior Year End	Change From Prior Quarter End
Q1 2017	\$ 5,806	-12%	-12%
Q2 2017	\$ 12,422	88%	114%
Q3 2017	\$ 11,086	68%	-11%
Q4 2017	\$ 9,322	41%	-16%
Q1 2018	\$ 8,618	-8%	-8%
Q2 2018	\$ 12,306	32%	43%
Q3 2018	\$ 12,898	38%	5%
Q4 2018	\$ 12,828	38%	-1%

Our order intake remained strong in fiscal 2018 with solid bookings across all product groups and markets, with the exception of telecommunications. The increase in our 12-month backlog from the first quarter to the second quarter of 2018 is largely due to the renewal of a large annual contract during the second quarter, which we began shipping against in the third quarter of fiscal 2018. Our 12-month backlog remained at or above this level through the end of fiscal 2018, even as we made significant shipments against that contract during the third and fourth quarters, due to continued bookings growth from the consumer, industrial, and medical market sectors.

We continue to diversify our business by developing new applications for our products in markets, including advanced driver assistance systems (“ADAS”), LIDAR sensing, spectrographic, and fiber delivery technologies. Many of these products are being designed for higher margin applications within the automotive electronics, healthcare and defense sectors. In addition, the ISP acquisition broadened our capabilities to include additional glass types and the ability to make much larger lenses, providing longer term opportunities for our technology roadmap and market share expansion. Based on recent quote activity, we expect increases in revenue from sales of our infrared products and precision molded optics products for fiscal 2019.

**Revenue Dollars and Units by Product Group:**

The following table sets forth revenue dollars and units by our five product groups for the three and twelve month periods ended June 30, 2018 and 2017:

		(unaudited)					
		Three Months Ended			Year Ended		
Revenue		June 30,		QTR	June 30,		Year-to-
		2018	2017	% Change	2018	2017	Date
							% Change
	LVPMO	\$ 1,762,194	\$ 2,242,934	-21%	\$ 7,540,664	\$ 8,386,953	-10%
	HVPMO	1,607,785	1,942,896	-17%	5,974,887	7,706,745	-22%
	Infrared Products	4,056,357	4,127,499	-2%	16,230,103	9,408,425	73%
	Speciality Products	595,934	632,755	-6%	2,316,172	2,459,033	-6%
	NRE	66,107	61,296	8%	463,645	406,333	14%
	Total sales, net	\$ 8,088,377	\$ 9,007,380	-10%	\$32,525,471	\$28,367,489	15%
<b>Units</b>							
	LVPMO	74,814	90,327	-17%	299,292	364,333	-18%
	HVPMO	491,409	595,387	-17%	1,906,910	2,163,931	-12%
	Infrared Products	45,947	42,369	8%	153,258	106,820	43%
	Speciality Products	9,886	18,691	-47%	62,176	91,095	-32%
	NRE	5	3	67%	29	58	-50%
		622,061	746,777	-17%	2,421,665	2,726,237	-11%

**Three months ended June 30, 2018 compared to three months ended June 30, 2017**

Our revenue decreased by 10% in the fourth quarter of fiscal 2018, as compared to the same period in the prior year primarily as a result of a decline in demand from customers in the telecommunications market. The majority of the decrease was in the LVPMO and HVPMO product groups, with infrared relatively flat.

We had a 21% decrease in revenue from our LVPMO products in the fourth quarter of fiscal 2018, as compared to the same period of the prior fiscal year. During the fourth quarter of fiscal 2018, sales of our LVPMO lens units decreased by 17%, and the average sales price also decreased by 5%, both as compared to the fourth quarter of 2017. The decrease in revenue is attributed to fewer sales to customers in the telecommunications, defense and industrial sectors.

We also had a 17% decrease in revenue from our HVPMO products in the fourth quarter of fiscal 2018, as compared to the same period of the prior fiscal year. During the fourth quarter of fiscal 2018, sales of HVPMO lens units decreased by 17%, with no significant changes to the average sales prices, both as compared to the fourth quarter of 2017. This decrease is primarily attributable to fewer sales to customers in the telecommunications industry. In the fourth quarter of 2017, the HVPMO product group benefitted from the strength in the telecommunications sector, driven by demand for increased bandwidth. However, this demand did not continue into fiscal 2018. Revenues from sales to customers in the telecommunications industry increased sequentially in the fourth quarter of fiscal 2018, as compared to the third quarter of fiscal 2018; however, revenues did not return to fiscal 2017 levels.

The infrared product group was relatively flat, with a 2% decrease in revenue in the fourth quarter of fiscal 2018, as compared to the same period of the prior fiscal year. During the fourth quarter of fiscal 2018, sales of infrared units increased by 8%, as compared to the prior year period; however, average selling prices decreased by 9%, compared to the prior fiscal year, due to fewer sales to customers in the defense industry, which generally have higher average selling prices.

In the fourth quarter of fiscal 2018, our specialty product revenue decreased by 6%, as compared to the same period of the prior fiscal year. During the fourth quarter of 2018, unit sales of our specialty products decreased by 47%, and the average sales price increased by 78%, both as compared to the fourth quarter of 2017. The decrease in revenue is attributed to the timing of customer orders.

Revenues generated by our NRE product group increased by 8% in the fourth quarter of fiscal 2018, as compared to the same period of the prior fiscal year, primarily due to the timing of customer orders. NRE revenue is project based and the timing of any such projects is wholly dependent on our customers and their project activity. Accordingly, management does not include NRE in its projections or forecasts for purposes of developing its operating plan and budget.

**Year ended June 30, 2018 compared to year ended June 30, 2017**

Our revenue increased by 15% in fiscal 2018, as compared to fiscal 2017, with growth driven primarily from the infrared product group, which expanded significantly with the acquisition of ISP in fiscal 2017. The increase in infrared revenues was offset by revenue decreases in our LVPMO and HVPMO product groups, primarily driven by soft demand from the telecommunications industry.

We had a 10% decrease in revenue generated by LVPMO sales in fiscal 2018, as compared to fiscal 2017. Our unit shipment volume of LVPMO lenses decreased by 18% in fiscal 2018, as compared to the prior fiscal year; however, average selling prices increased by 9% for fiscal 2018, as compared to fiscal 2017. The decrease in unit shipment volume is primarily attributable to fewer sales to customers in the telecommunications industry, partially offset by higher sales to customers in the medical and industrial sectors, with higher average sales prices.

We also had a 22% decrease in revenue generated by our HVPMO product group in fiscal 2018, as compared to fiscal 2017. During fiscal 2018, sales of HVPMO lens units decreased 12%, and average sales prices decreased 12%, both as compared to the prior fiscal year. This decrease is almost entirely attributable to fewer sales to customers in the telecommunications industry. In fiscal 2017, the HVPMO product group benefitted from strength in the telecommunications sector, driven by demand for increased bandwidth. However, this demand did not continue into fiscal 2018. The decrease in sales to customers in the telecommunications industry was partially offset by increases in sales to medical and industrial customers, as well as catalog parts sold through distribution.

We had significant growth in the infrared product group, which primarily consisted of revenues generated by ISP. Fiscal 2018 includes revenues attributable to ISP for the full year, whereas fiscal 2017 only included revenues attributable to ISP post-acquisition, or for approximately half of the fiscal year. During fiscal 2018, revenues from sales of infrared products increased 73%, as compared to fiscal 2017. Unit shipment volume increased by 43% and average selling prices increased 20% for fiscal 2018, as compared to fiscal 2017.

Specialty product revenue decreased by 6% for fiscal 2018, as compared to the prior fiscal year, primarily as a result of fewer orders from customers in the medical industry.

Revenues generated by our NRE product group increased by 14% in fiscal 2018, as compared to the prior year period, due to specific projects for customers in the defense and industrial markets. NRE revenue is project based and timing of any such projects is wholly dependent on our customers and their project activity. Accordingly, management does not include NRE in its projections or forecasts for purposes of developing its operating plan and budget.

**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:

<b>Fiscal Quarter</b>	<b>Ended</b>	<b>DCSI (days)</b>
Q4-2018	6/30/2018	103
Q3-2018	3/31/2018	112
Q2-2018	12/31/2017	113
Q1-2018	9/30/2017	109
<b>Fiscal 2018 average</b>		<b>109</b>
Q4-2017	6/30/2017	100
Q3-2017	3/31/2017	109
Q2-2017	12/31/2016	177
Q1-2017	9/30/2016	168
<b>Fiscal 2017 average</b>		<b>139</b>

Our average DCSI for fiscal 2018 was 109, compared to 139 for fiscal 2017. The decrease in DCSI from the previous fiscal year average is due to the inclusion of ISP's cost of goods and inventory for the full fiscal year, which had a favorable impact on this ratio. We expect DCSI to continue to stay below 110.

**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:

<b>Fiscal Quarter</b>	<b>Ended</b>	<b>DSO (days)</b>
Q4-2018	6/30/2018	61
Q3-2018	3/31/2018	61
Q2-2018	12/31/2017	62
Q1-2018	9/30/2017	62
<b>Fiscal 2018 average</b>		<b>62</b>
Q4-2017	6/30/2017	60
Q3-2017	3/31/2017	62
Q2-2017	12/31/2016	87
Q1-2017	9/30/2016	60
<b>Fiscal 2017 average</b>		<b>67</b>

Our average DSO for fiscal 2018 was 62, compared to 67 for fiscal 2017. In the second quarter of 2017, the addition of ISP's receivables and revenue increased DSO, as compared to previous periods; however, by the end of fiscal 2017, DSO had returned to more normal levels. 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 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 measures that other companies use.

**Adjusted Net Income:**

Adjusted net income is a non-GAAP financial measure 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. Management uses adjusted net income to evaluate our underlying operating performance and for planning and forecasting future business operations. We believe adjusted net income may be helpful for investors as one means of evaluating our operational performance

We calculate adjusted net income by excluding the change in the fair value of the June 2012 Warrants from net income. The fair value of the June 2012 Warrants was re-measured each reporting period until the warrants were exercised or expired on December 11, 2017. In each reporting period during the term of the June 2012 Warrants, the change in the fair value of the June 2012 Warrants was either recognized as non-cash expense or non-cash income. The change in the fair value of the June 2012 Warrants was not impacted by our actual operations but was instead strongly tied to the change in the market value of our Class A common stock. The following table reconciles net income to adjusted net income for the three and twelve month periods ended June 30, 2018 and 2017:

	(unaudited)			
	Quarter Ended:		Year Ended:	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Net income (loss)	\$ (807,220)	\$ 6,364,099	\$ 1,060,104	\$ 7,703,086
Change in fair value of warrant liability	—	9,759	194,632	467,543
Adjusted net income (loss)	<u>\$ (807,220)</u>	<u>\$ 6,373,858</u>	<u>\$ 1,254,736</u>	<u>\$ 8,170,629</u>
% of revenue	-10%	71%	4%	29%

Our adjusted net loss for the quarter ended June 30, 2018 was approximately \$807,000, as compared to adjusted net income of approximately \$6.4 million for the quarter ended June 30, 2017. The decrease in net income was primarily due to the \$5.1 million net income tax benefit recorded during the fourth quarter of fiscal 2017, compared to a tax benefit of approximately \$508,000 for the fourth quarter of fiscal 2018. The tax benefit for the fourth quarter of fiscal 2017 was largely attributable to a decrease in the valuation allowance recorded against our deferred tax assets, driven by the deferred tax liabilities recorded in conjunction with the acquisition of ISP. The remaining decrease in adjusted net income is due to a decrease in the gross margin, partially offset by lower SG&A costs. The fourth quarter of fiscal 2018 was also unfavorably impacted by foreign exchange rates, with foreign exchange losses of approximately \$714,000 for the quarter ended June 30, 2018, compared to foreign exchange gains of approximately \$333,000 for the quarter ended June 30, 2017.

Our adjusted net income for fiscal 2018 was approximately \$1.3 million, as compared to approximately \$8.2 million for fiscal 2017. The decrease in adjusted net income was primarily attributable to the \$4.3 million net income tax benefit recorded for fiscal 2017, compared to a tax benefit of approximately \$827,000 for fiscal 2018. The benefit was largely attributable to a decrease in the valuation allowance recorded against our deferred tax assets, driven by the deferred tax liabilities recorded in conjunction with the acquisition of ISP. The remaining decrease in adjusted net income from fiscal 2017 to fiscal 2018 was primarily driven by the aforementioned decrease in gross margin and increases in operating costs resulting from the inclusion of ISP's costs for a full year, which were only included for approximately two quarters of the prior fiscal year, including an approximately \$623,000 increase in the amortization of intangibles.

#### **EBITDA and Adjusted EBITDA:**

EBITDA and adjusted EBITDA are 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."

We also calculate an adjusted EBITDA, which excludes the effect of the non-cash income or expense associated with the mark-to-market adjustments, related to our June 2012 Warrants. The fair value of the June 2012 Warrants was re-measured each reporting period until the warrants were either exercised or expired on December 11, 2017. Each reporting period, the change in the fair value of the June 2012 Warrants was either recognized as a non-cash expense or non-cash income. The change in the fair value of the June 2012 Warrants was not impacted by our actual operations but was instead strongly tied to the change in the market value of our Class A common stock. Management uses adjusted EBITDA to evaluate our underlying operating performance and for planning and forecasting future business operations. We believe this adjusted EBITDA is helpful for investors to better understand our underlying business operations. The following table adjusts net income to EBITDA and adjusted EBITDA for the three and twelve month periods ended June 30, 2018 and 2017:

	(unaudited)			
	Quarter Ended:		Year Ended:	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Net income (loss)	\$ (807,220)	\$ 6,364,099	\$ 1,060,104	\$ 7,703,086
Depreciation and amortization	911,577	840,207	3,403,581	2,080,439
Provision for income taxes	(508,399)	(5,112,900)	(827,077)	(4,341,300)
Interest expense	134,736	207,256	186,948	413,427
EBITDA	\$ (269,306)	\$ 2,298,662	\$ 3,823,556	\$ 5,855,652
Change in fair value of warrant liability	—	9,759	194,632	467,543
Adjusted EBITDA	\$ (269,306)	\$ 2,308,421	\$ 4,018,188	\$ 6,323,195
% of revenue	-3%	26%	12%	22%

Our adjusted EBITDA for the quarter ended June 30, 2018 was a loss of approximately \$269,000, compared to earnings of approximately \$2.3 million for the quarter ended June 30, 2017. The decrease in adjusted EBITDA between the periods was principally caused by the lower gross margin in the fourth quarter of fiscal 2018, as compared to the fourth quarter of fiscal 2017. The fourth quarter of fiscal 2018 was also unfavorably impacted by foreign exchange rates, with foreign exchange losses of approximately \$714,000 for the quarter ended June 30, 2018, compared to foreign exchange gains of approximately \$333,000 for the quarter ended June 30, 2017.

Our adjusted EBITDA for fiscal 2018 was approximately \$4.0 million, compared to approximately \$6.3 million for fiscal 2017. The decrease in adjusted EBITDA between the periods was principally caused by the lower gross margin for fiscal 2018, as compared to fiscal 2017, particularly in the fourth quarter of fiscal 2018.

#### **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 recognized from product sales when products are shipped to the customer, provided that we have received a valid purchase order, the price is fixed, title has transferred, collection of the associated receivable is reasonably assured, and there are no remaining significant obligations. Revenues from product development agreements are recognized as milestones as completed in accordance with the terms of the agreements and upon shipment of products, reports or designs to the customer. 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. Most options granted under the Amended and Restated Omnibus Incentive Plan (the "Omnibus Plan") 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 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.

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, 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 we operate in. 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, 2018, 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 Securities Exchange Act of 1934 (the "Exchange Act"). Our CEO and our CFO have concluded, based on their evaluation, that as of June 30, 2018, 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, 2018 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, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## **Item 9B. Other Information.**

### **Entry Into a Material Definitive Agreement**

#### **Creation of a Direct Financial Obligation or an Obligation Under an Off-Balance Sheet Arrangement of Registrant**

On September 7, 2018, we entered into the Fourth Amendment to the Amended LSA, relating to our previously disclosed Term II Loan and Revolving Loan, with Avidbank. The Fourth Amendment amends Section 4.5 to provide that for so long as the Term II Loan is outstanding, One Million Dollars (\$1,000,000) of our cash maintained at Avidbank (the "Cash Collateral") is pledged to Avidbank as specific collateral (as defined in the Amended LSA) to secure our obligations under the Amended LSA. Avidbank is entitled to hold the Cash Collateral in pledge, and to decline to honor any withdrawals thereon or any request by us to pay or otherwise transfer any part of the Cash Collateral. Upon satisfying a Fixed Charge Coverage Ratio (as defined in the Amended LSA) of at least 1.15 to 1.00 for two consecutive quarters, and so long as no event of default has occurred that is continuing on that date, Avidbank will release the Cash Collateral from these restrictions and pledge. During the period of time the Cash Collateral is pledged to Avidbank, the calculation of Fixed Charge Coverage Ratio will be determined as if the outstanding principal amount of the Term II Loan is \$1,000,000 less than the actual outstanding principal amount of the Term II Loan. Additionally, pursuant to the Fourth Amendment, Avidbank granted us a waiver of default arising prior to the Fourth Amendment from our failure to comply with the Fixed Charge Coverage Ratio covenant measured on June 30, 2018. Based on the waiver, we are no longer in default of the Term II Loan or Revolving Line.

The foregoing descriptions of the Fourth Amendment are summaries only, and are qualified in their entirety by reference to the complete text of the Fourth Amendment filed herewith as Exhibit 10.21.



**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 2019 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2018.

**Item 11. Executive Compensation.**

The information required under this item is incorporated herein by reference to our proxy statement for our fiscal 2019 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2018.

**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 2019 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2018, 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 2018:

<b>Equity Compensation Arrangement</b>	<b>Award Shares Authorized</b>	<b>Outstanding at June 30, 2018</b>	<b>Available for Issuance at June 30, 2018</b>
Omnibus Plan	5,115,625	2,654,482	1,650,870
2014 ESPP	400,000	—	358,008
	<u>5,515,625</u>	<u>2,654,482</u>	<u>2,008,878</u>

**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 2019 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2018.

**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 2019 Annual Stockholders' Meeting to be filed with the SEC not later than 120 days after the end of fiscal 2018.

## 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

<u>Exhibit Number</u>	<u>Description</u>
3.1.1	Certificate of Incorporation of LightPath Technologies, Inc., filed June 15, 1992 with the Secretary of State of Delaware, which was filed as an exhibit to our Registration Statement on Form SB-2 (File No: 33-80119) filed with the Securities and Exchange Commission on December 7, 1995, and is incorporated herein by reference thereto.
3.1.2	Certificate of Amendment to Certificate of Incorporation of LightPath Technologies, Inc., filed October 2, 1995 with the Secretary of State of Delaware, which was filed as an exhibit to our Registration Statement on Form SB-2 (File No: 33-80119) filed with the Securities and Exchange Commission on December 7, 1995, and is incorporated herein by reference thereto.
3.1.3	Certificate of Designations of Class A common stock and Class E-1 common stock, Class E-2 common stock, and Class E-3 common stock of LightPath Technologies, Inc., filed November 9, 1995 with the Secretary of State of Delaware, which was filed as an exhibit to our Registration Statement on Form SB-2 (File No: 33-80119) filed with the Securities and Exchange Commission on December 7, 1995, and is incorporated herein by reference thereto.
<a href="#">3.1.4</a>	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.
<a href="#">3.1.5</a>	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.
<a href="#">3.1.6</a>	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.
<a href="#">3.1.7</a>	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.
<a href="#">3.1.8</a>	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.
<a href="#">3.1.9</a>	Certificate of Designation of Series F Preferred Stock of LightPath Technologies, Inc., filed November 2, 1999 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Registration Statement on Form S-3 (File No: 333-94303) filed with the Securities and Exchange Commission on January 10, 2000, and is incorporated herein by reference thereto.

- [3.1.10](#) Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed February 28, 2003 with the Secretary of State of Delaware, which was filed as Appendix A to our Proxy Statement (File No. 000-27548) filed with the Securities and Exchange Commission on January 24, 2003, and is incorporated herein by reference thereto.
- [3.1.11](#) Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed March 1, 2016 with the Secretary of State of Delaware, which was filed as Exhibit 3.1.11 to our Quarterly Report on Form 10-Q (File No: 000-27548) filed with the Securities and Exchange Commission on November 14, 2016, and is incorporated herein by reference thereto.
- [3.1.12](#) Certificate of Amendment of Certificate of Incorporation of LightPath Technologies, Inc., filed October 30, 2017 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Current Report on Form 8-K (File No: 000-27548) filed with the Securities and Exchange Commission on October 31, 2017, and is incorporated herein by reference thereto.
- [3.1.13](#) Certificate of Amendment of Certificate of Designations of Class A Common Stock and Class E-1 Common Stock, Class E-2 Common Stock, and Class E-3 Common Stock of LightPath Technologies, Inc., filed October 30, 2017 with the Secretary of State of Delaware, which was filed as Exhibit 3.2 to our Current Report on Form 8-K (File No: 000-27548) filed with the Securities and Exchange Commission on October 31, 2017, and is incorporated herein by reference thereto.
- [3.1.14](#) Certificate of Amendment of Certificate of Designation, Preferences and Rights of Series D Participating Preferred Stock of LightPath Technologies, Inc., filed January 30, 2018 with the Secretary of State of Delaware, which was filed as Exhibit 3.1 to our Current Report on Form 8-K (File No: 000-27548) filed with the Securities and Exchange Commission on February 1, 2018, and is incorporated herein by reference thereto.
- [3.2.1](#) 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.
- [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, its Chief Executive Officer & President, 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](#) Second Amended and Restated Loan and Security Agreement dated December 21, 2016 by and between LightPath Technologies, Inc. and AvidBank Corporate Finance, a division of AvidBank, 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 December 27, 2016, and is incorporated herein by reference thereto.
- [10.5](#) 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.
- [10.6](#) Stock Purchase Agreement dated August 3, 2016 by and among LightPath Technologies, Inc., ISP Optics Corporation, Mark Lifshotz, and Joseph Menaker, which was filed as Exhibit 10.8 to our Annual Report on Form 10-K (File No.: 000-27548) filed with the Securities and Exchange Commission on September 15, 2016, and is incorporated herein by reference thereto.\*\*
- [10.7](#) Unsecured Promissory Note dated December 21, 2016 in favor of Joseph Menaker and Mark Lifshotz, which was filed as Exhibit 10.1 to our Current Report on Form 8-K (File No. 000-27548) filed with the SEC on December 27, 2016, and is incorporated herein by reference thereto.
- [10.8](#) Affirmation of Guarantee of Geltech, Inc., which was filed as Exhibit 10.3 to our Current Report on Form 8-K (File No.: 000-27548) filed with the SEC on December 27, 2016, and is incorporated herein by reference thereto.

- [10.9](#) Joinder Agreement dated December 22, 2016 by and between ISP Optics Corporation and Avidbank Corporate Finance, a division of Avidbank, 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 December 27, 2016, and is incorporated herein by reference thereto.
- [10.10](#) Underwriting Agreement dated December 16, 2016, between LightPath Technologies, Inc. and Roth Capital Partners, LLC, as representative of the several underwriters, which was filed as Exhibit 1.1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on December 20, 2016, and is incorporated herein by reference thereto.
- [10.11](#) First Amendment to Second Amended and Restated Loan and Security Agreement dated December 20, 2017 by and between LightPath Technologies, Inc. and Avidbank Corporate Finance a division of Avidbank, which was filed as Exhibit 10.1 to our Current Report on Form 8-K (File No.: 00027548) filed with the Securities and Exchange Commission on December 22, 2017, and is incorporated herein by reference thereto.
- [10.12](#) Note Satisfaction and Securities Purchase Agreement dated January 16, 2018, by and between LightPath Technologies, Inc., Joseph Menaker, and Mark Lifshotz, which was filed as Exhibit 10.1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on January 17, 2018, and is incorporated herein by reference thereto.
- [10.13](#) Registration Rights Agreement dated January 16, 2018, by and between LightPath Technologies, Inc., Joseph Menaker, and Mark Lifshotz, which was filed as Exhibit 10.1 to our Current Report on Form 8-K (File No.: 000-27548) filed with the Securities and Exchange Commission on January 17, 2018, and is incorporated by reference thereto.
- [10.14](#) Second Amendment to Second Amended and Restated Loan and Security Agreement dated December 20, 2017 by and between LightPath Technologies, Inc. and Avidbank Corporate Finance, a division of Avidbank, 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 January 17, 2018, and is incorporated herein by reference thereto.
- [10.15](#) Affirmation of Guarantee of GelTech, Inc., 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 January 17, 2018, and is incorporated herein by reference thereto.
- [10.16](#) 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.
- [10.17](#) 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.
- [10.18](#) Third Amendment to Second Amended and Restated Loan and Security Agreement dated May 11, 2018, by and between LightPath Technologies, Inc. and Avidbank, 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 May 14, 2018, and is incorporated herein by reference thereto.
- [10.19](#) Affirmation of Guarantee of Geltech, Inc., which was filed as Exhibit 10.8 to our Quarterly Report on Form 10-Q (File No.: 000-27548) filed with the Securities and Exchange Commission on May 14, 2018, and is incorporated herein by reference thereto.

<a href="#">10.20</a>	Offer Letter between LightPath Technologies, Inc. and Donald O. Retreage, Jr., dated May 31, 2018, 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 June 5, 2018, and is incorporated herein by reference thereto.
<a href="#">10.21</a>	Fourth Amendment to the Second Amended and Restated Loan and Security Agreement dated September 7, 2018, by and between LightPath Technologies, Inc. and Avidbank*
<a href="#">14.1</a>	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.
<a href="#">14.2</a>	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.
<a href="#">21.1</a>	Subsidiaries of the Registrant*
<a href="#">23.1</a>	Consent of Moore Stephens Lovelace, P.A.*
<a href="#">23.2</a>	Consent of BDO USA, LLP*
<a href="#">24</a>	Power of Attorney*
<a href="#">31.1</a>	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934*
<a href="#">31.2</a>	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934*
<a href="#">32.1</a>	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 of Chapter 63 of Title 18 of the United States Code*
<a href="#">32.2</a>	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

\*\* The schedules to the Stock Purchase Agreement filed as Exhibit 10.6 hereto have been omitted pursuant to Item 601(b)(2) of Regulation S-K. We hereby undertake to provide copies of the omitted schedules to the SEC upon request.

**Item 16. Form 10-K Summary.**

None.

**LightPath Technologies, Inc.**

**Index to Consolidated Financial Statements**

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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 sheet of LightPath Technologies, Inc. (the "Company") as of June 30, 2018, and the related consolidated statements of comprehensive income, changes in stockholders' equity, and cash flows for the year ended June 30, 2018, 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, 2018, and the results of its operations and its cash flows for the year ended June 30, 2018, in conformity with accounting principles generally accepted in the United States of America.

### Basis for Opinion

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

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

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

**/s/ MOORE STEPHENS LOVELACE, P.A.**

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

Orlando, Florida  
September 13, 2018

## Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders  
LightPath Technologies, Inc.

We have audited the accompanying consolidated balance sheet of LightPath Technologies, Inc., and its subsidiaries (the "Company") as of June 30, 2017, and the related consolidated statements of comprehensive income, stockholders' equity, and cash flows for the year then ended. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing our audit procedures that are appropriate in the circumstances, 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of June 30, 2017, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

/s/ BDO USA, LLP

Orlando, Florida  
September 14, 2017



Item 1. Financial Statements

LIGHTPATH TECHNOLOGIES, INC.  
Consolidated Balance Sheets

Assets	June 30, 2018	June 30, 2017
Current assets:		
Cash and cash equivalents	\$ 5,508,620	\$ 8,085,015
Restricted cash	1,000,000	—
Trade accounts receivable, net of allowance of \$13,364 and \$7,356	5,370,508	5,890,113
Inventories, net	6,404,741	5,074,576
Other receivables	46,574	29,202
Prepaid expenses and other assets	1,058,610	641,469
Total current assets	<u>19,389,053</u>	<u>19,720,375</u>
Property and equipment, net	11,809,241	10,324,558
Intangible assets, net	9,057,970	10,375,053
Goodwill	5,854,905	5,854,905
Deferred tax assets, net	624,000	285,000
Other assets	381,945	112,323
Total assets	<u>\$ 47,117,114</u>	<u>\$ 46,672,214</u>
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable	\$ 2,032,834	\$ 1,536,121
Accrued liabilities	685,430	966,929
Accrued payroll and benefits	1,228,120	1,896,530
Loans payable, current portion	1,458,800	1,111,500
Capital lease obligation, current portion	307,199	239,332
Total current liabilities	<u>5,712,383</u>	<u>5,750,412</u>
Capital lease obligation, less current portion	550,127	142,101
Deferred rent	377,364	458,839
Deferred tax liabilities	—	182,349
Warrant liability	—	490,500
Loans payable, less current portion	5,119,796	9,926,844
Total liabilities	<u>11,759,670</u>	<u>16,951,045</u>
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; 25,764,544 and 24,215,733 shares issued and outstanding	257,645	242,157
Additional paid-in capital	229,874,823	225,492,252
Accumulated other comprehensive income	473,508	295,396
Accumulated deficit	(195,248,532)	(196,308,636)
Total stockholders' equity	<u>35,357,444</u>	<u>29,721,169</u>
Total liabilities and stockholders' equity	<u>\$ 47,117,114</u>	<u>\$ 46,672,214</u>

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

**LIGHTPATH TECHNOLOGIES, INC.**  
**Consolidated Statements of Comprehensive Income**

	<b>Years Ended June 30,</b>	
	<b>2018</b>	<b>2017</b>
Revenue, net	\$ 32,525,471	28,367,489
Cost of sales	19,997,740	13,648,030
Gross margin	12,527,731	14,719,459
Operating expenses:		
Selling, general and administrative	9,218,346	8,651,023
New product development	1,618,994	1,235,934
Amortization of intangibles	1,317,082	693,947
(Gain) loss on disposal of property and equipment	(258)	1,444
Total operating costs and expenses	12,154,164	10,582,348
Operating income	373,567	4,137,111
Other income (expense):		
Interest expense, net	(186,948)	(413,427)
Change in fair value of warrant liability	(194,632)	(467,543)
Other income, net	241,040	105,645
Total other expense, net	(140,540)	(775,325)
Income before income taxes	233,027	3,361,786
Provision for income taxes	(827,077)	(4,341,300)
Net income	\$ 1,060,104	\$ 7,703,086
Foreign currency translation adjustment	178,112	169,288
Comprehensive income	\$ 1,238,216	\$ 7,872,374
Earnings per common share (basic)	\$ 0.04	\$ 0.39
Number of shares used in per share calculation (basic)	25,006,467	20,001,868
Earnings per common share (diluted)	\$ 0.04	\$ 0.36
Number of shares used in per share calculation (diluted)	26,811,468	21,666,392

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

**LIGHTPATH TECHNOLOGIES, INC.**  
**Consolidated Statements of Stockholders' Equity**  
**Years Ended June 30, 2018 and 2017**

	Class A Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balances at June 30, 2016	15,590,945	\$ 155,909	\$ 214,661,617	\$ 126,108	\$ (204,011,722)	\$ 10,931,912
Issuance of common stock for:						
Exercise of warrants	578,897	5,789	699,890	—	—	705,679
Employee Stock Purchase Plan	12,106	121	19,511	—	—	19,632
Exercise of RSU	33,785	338	(338)	—	—	—
Public equity placement, net of costs	8,000,000	80,000	8,669,496	—	—	8,749,496
Reclassification of warrant liability upon exercise	—	—	694,436	—	—	694,436
Stock-based compensation on stock options & RSU	—	—	747,640	—	—	747,640
Foreign currency translation adjustment	—	—	—	169,288	—	169,288
Net income	—	—	—	—	7,703,086	7,703,086
Balances at June 30, 2017	24,215,733	242,157	225,492,252	295,396	(196,308,636)	29,721,169
Issuance of common stock for:						
Exercise of warrants	433,810	4,338	529,980	—	—	534,318
Employee Stock Purchase Plan	19,980	200	48,391	—	—	48,591
Exercise of stock options	127,813	1,278	224,723	—	—	226,001
Settlement of Sellers Note	967,208	9,672	2,237,392	—	—	2,247,064
Reclassification of warrant liability upon exercise	—	—	685,132	—	—	685,132
Stock-based compensation on stock options & RSU	—	—	656,953	—	—	656,953
Foreign currency translation adjustment	—	—	—	178,112	—	178,112
Net income	—	—	—	—	1,060,104	1,060,104
Balances at June 30, 2018	25,764,544	\$ 257,645	\$ 229,874,823	\$ 473,508	\$ (195,248,532)	\$ 35,357,444

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

**LIGHTPATH TECHNOLOGIES, INC.**  
**Consolidated Statements of Cash Flows**

	Years Ended June 30,	
	2018	2017
Cash flows from operating activities		
Net income	\$ 1,060,104	\$ 7,703,086
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	3,403,581	2,080,439
Interest from amortization of debt costs	19,685	7,721
(Gain) loss on disposal of property and equipment	(258)	1,444
Stock-based compensation on stock options & RSU, net	373,554	394,875
Bad debt expense	(16,417)	(29,551)
Change in fair value of warrant liability	194,632	467,543
Change in fair value of Sellers Note	(396,163)	68,955
Deferred rent amortization	(81,475)	(89,363)
Inventory write-offs to reserve	187,547	90,268
Deferred tax benefit	(533,806)	(5,493,704)
Changes in operating assets and liabilities:		
Trade accounts receivable	618,393	(1,042,426)
Other receivables	(15,997)	160,070
Inventories	(1,330,994)	(318,645)
Prepaid expenses and other assets	(685,260)	151,821
Accounts payable and accrued liabilities	(178,138)	846,511
Net cash provided by operating activities	<u>2,618,988</u>	<u>4,999,044</u>
Cash flows from investing activities:		
Purchase of property and equipment	(2,517,685)	(2,223,126)
Acquisition of ISP Optics, net of cash acquired	—	(11,777,336)
Net cash used in investing activities	<u>(2,517,685)</u>	<u>(14,000,462)</u>
Cash flows from financing activities:		
Proceeds from exercise of stock options	226,001	—
Proceeds from sale of common stock from Employee Stock Purchase Plan	48,591	19,632
Loan costs	(61,253)	(72,224)
Borrowings on loan payable	2,942,583	5,000,000
Proceeds from issuance of common stock under public equity placement	—	8,749,496
Proceeds from exercise of warrants, net of costs	534,318	705,679
Net Payments on loan payable	(4,716,536)	—
Payments on capital lease obligations	(287,354)	(193,940)
Net cash (used in) provided by financing activities	<u>(1,313,650)</u>	<u>14,208,643</u>
Effect of exchange rate on cash and cash equivalents	(364,048)	(30,234)
Change in cash and cash equivalents and restricted cash	(1,576,395)	5,176,991
Cash and cash equivalents and restricted cash, beginning of period	8,085,015	2,908,024
Cash and cash equivalents and restricted cash, end of period	<u>\$ 6,508,620</u>	<u>\$ 8,085,015</u>
Supplemental disclosure of cash flow information:		
Interest paid in cash	\$ 546,306	\$ 334,589
Income taxes paid	\$ 386,471	\$ 680,055
Supplemental disclosure of non-cash investing & financing activities:		
Purchase of equipment through capital lease arrangements	\$ 763,247	\$ 230,000
Reclassification of warrant liability upon exercise	\$ 685,132	\$ 694,436
Derecognition of liability associated with stock option grants	\$ 283,399	\$ 352,765
Sellers Note issued to acquire ISP Optics, at fair value	—	\$ 6,327,208
Conversion of Sellers Note to common stock	\$ 2,247,064	—

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"). See Note 3, Acquisition of ISP Optics Corporation, to these Consolidated Financial Statements for additional information.

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 materials 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. Summary of 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.

**Reclassifications.** The classification of certain prior-year amounts have been adjusted in our Consolidated Financial Statements to conform to current-year classifications. Reclassifications include the line item "Interest expense – debt costs" which is now combined with the "Interest expense, net" line item in our Consolidated Statements of Comprehensive Income.

**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 with high credit ratings. The Company's domestic cash accounts are maintained in one financial institution, and balances may exceed federal insured limits at times. The Company's foreign cash accounts are not insured.

**Restricted cash** consists of amounts held in restricted accounts as collateral associated with our debt covenants. See Note 18, Loans Payable, to these Consolidated Financial Statements for additional information. Our restricted cash is invested in a money market account. During fiscal year 2018, the Company adopted ASU 2016-18, "Statement of Cash Flows (Topic 320): Restricted Cash" ("ASU 2016-18"), which provides guidance on the presentation of restricted cash and restricted cash equivalents in the statement of cash flows. Cash and cash equivalents and restricted cash presented in the Consolidated Balance Sheet as of June 30, 2018 are combined in the Consolidated Statement of Cash Flows for the year ended June 30, 2018.

**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 have been expensed. 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. 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. During fiscal year 2018, the Company adopted ASU 2017-4, "Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment" ("ASU 2017-4"), which amends the goodwill impairment test to compare the fair value of a reporting unit with its carrying amount and recognize an impairment charge 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. The Company did not record any goodwill impairment during the fiscal years ended June 30, 2018 or 2017.

**Deferred rent** relates to certain of the Company's operating leases containing predetermined fixed increases of the base rental rate during the lease term being recognized as rental expense on a straight-line basis over the lease term, as well as applicable leasehold improvement incentives provided by the landlord. The Company has recorded the difference between the amounts charged to operations and amounts payable under the leases as deferred rent in the accompanying Consolidated Balance Sheets.

**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 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 and restricted cash totaled \$6.5 million at June 30, 2018. Of this amount, approximately 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. With respect to the funds generated by our foreign subsidiaries in China, the retained earnings in China must equal at least 150% of the registered capital before any funds can be repatriated. As of June 30, 2018, we have retained earnings in China of approximately \$1.9 million and we need to have \$11.3 million before repatriation will be allowed.

Accumulated earnings from the Company's non-U.S. subsidiaries were subject to inclusion in the Company's current period U.S. and state income tax returns as a result of the impact of the U.S. tax law changes. However, no income tax was due on the inclusion of these earnings due to utilization of net operating losses. See Note 9, Income Taxes, to these Consolidated Financial Statements for additional information.

The Company intends to permanently invest earnings generated from its foreign Chinese operations, and, therefore, has not previously provided for future Chinese withholding taxes on such related earnings. However, if, in the future, the Company changes such intention, the Company would provide for and pay additional foreign taxes, if any, at that time.

**Revenue** is recognized from product sales when products are shipped to the customer, provided that the Company has received a valid purchase order, the price is fixed, title has transferred, collection of the associated receivable is reasonably assured, and there are no remaining significant obligations. Product development agreements are generally short term in nature with revenue recognized upon shipment to the customer for products, reports or designs. Invoiced amounts for sales for value-added taxes ("VAT") are posted to the balance sheet and are not included in revenue.

**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. Most awards granted under our Amended and Restated Omnibus Incentive Plan, as amended (the "Omnibus Plan"), 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 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 receivables, 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 capital lease obligations and acquisition term loan payable to Avidbank Corporate Finance, a division of Avidbank ("Avidbank") approximates their carrying values based upon current rates available to us. Loans payable as of June 30, 2017 also included a note payable to the sellers of ISP, in the aggregate principal amount of \$6 million (the "Sellers Note"). The carrying value of the Sellers Note included a fair value premium based on a risk-adjusted discount rate, a Level 2 fair value measurement. On January 16, 2018, the Sellers Note was satisfied in full and, therefore, is not included in loans payable as of June 30, 2018. See Note 18, Loans Payable, to these Consolidated Financial Statements for additional information.

The Company valued its warrant liabilities based on open-form option pricing models which, based on the relevant inputs, render the fair value measurement at Level 3. The Company based its estimates of fair value for warrant liabilities on the amount it would pay a third-party market participant to transfer the liability and incorporates inputs such as equity prices, historical and implied volatilities, dividend rates and prices of convertible securities issued by comparable companies maximizing the use of observable inputs when available. See Note 17, Derivative Financial Instruments (Warrant Liability), to these Consolidated Financial Statements for additional information.

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.

**Derivative financial instruments.** The Company accounts for derivative instruments in accordance with Financial Accounting Standards Board's Accounting Standards Codification Topic 815, "Derivatives and Hedging" ("ASC 815"), which requires additional disclosures about the Company's objectives and strategies for using derivative instruments, how the derivative instruments and related hedged items are accounted for, and how the derivative instruments and related hedging items affect the financial statements.

The Company does not use derivative instruments to hedge exposures to cash flow, market or foreign currency risk. Terms of convertible debt instruments are reviewed to determine whether or not they contain embedded derivative instruments that are required under ASC 815 to be accounted for separately from the host contract, and recorded on the balance sheet at fair value. The fair value of derivative liabilities, if any, is required to be revalued at each reporting date, with corresponding changes in fair value recorded in current period operating results. The Company issued warrants in connection with our June 2012 private placement (the "June 2012 Warrants"). The fair value of the June 2012 Warrants was estimated using the Lattice option-pricing model.

Freestanding warrants issued by the Company in connection with the issuance or sale of debt and equity instruments are considered to be derivative instruments. Pursuant to ASC 815, an evaluation of specifically identified conditions is made to determine whether the fair value of warrants issued is required to be classified as equity or as a derivative liability.

**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.

**Recent accounting pronouncements.** There are new accounting pronouncements issued by the Financial Accounting Standards Board ("FASB") that are not yet effective for the Company for the year ended June 30, 2018.

**Revenue from Contracts with Customers** – In May 2014, FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers" (Topic 606) ("ASU 2014-09"), which supersedes the revenue recognition requirements in ASC Topic 605, "Revenue Recognition," and most industry-specific guidance. ASU 2014-09 is based on the principle that revenue is recognized to depict the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. ASU 2014-09 must be applied using one of two retrospective methods and were originally set to be effective for annual and interim periods beginning after December 15, 2016. On July 9, 2015, the FASB modified ASU 2014-09 to be effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. As modified, the FASB permits the early adoption of the new revenue standard, but not before the annual periods beginning after December 15, 2017. A public organization would apply the new revenue standard to all interim reporting periods within the year of adoption. The Company will adopt this standard in the first quarter of its fiscal year ended June 30, 2019, using the modified retrospective method. We have substantially completed our analysis, and the adoption of this guidance will not have a material impact on our Consolidated Financial Statements and our internal controls over financial reporting.

**Leases** – In February 2016, the FASB issued ASU No. 2016-02, "Leases" ("ASU 2016-02"). 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. ASU 2016-02 must be adopted using a modified retrospective approach for all leases existing at, or entered into after the date of initial adoption, with an option to elect to use certain transition relief. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018, including interim periods within that reporting period, with earlier adoption permitted. Our current operating lease portfolio is primarily comprised of real estate leases. Upon adoption of this standard, the Company expects its Consolidated Balance Sheet to include a right-of-use asset and liability related to substantially all of its operating lease arrangements. ASU 2016-02 will be effective for the Company in the first quarter of its fiscal year ending June 30, 2020.



**Income Taxes** – In October 2016, the FASB issued ASU 2016-16, “Income Taxes” (Topic 740) (“ASU 2016-16”). ASU 2016-16 requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset, other than inventory, when the transfer occurs. ASU 2016-16 is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted as of the beginning of an annual reporting period for which financial statements have not been issued or made available for issuance. ASU 2016-16 is effective for the Company in the first quarter of its fiscal year ending June 30, 2019. The Company does not expect this accounting standard to have a significant impact on its financial results when adopted.

**Compensation – Stock Compensation** – In May 2017, the FASB issued ASU 2017-09, “Compensation - Stock Compensation” (Topic 718): Scope of Modification Accounting (“ASU 2017-09”). The new guidance clarifies when a change to the terms or conditions of a share-based payment award must be accounted for as a modification. ASU 2017-09 is effective for fiscal years, and interim periods within those annual periods, beginning after December 15, 2017, with early adoption permitted. ASU 2017-09 is effective for the Company in the first quarter of its fiscal year ending June 30, 2019. The Company does not expect this accounting standard to have a significant impact on its financial results when adopted.

**Comprehensive Income** - In February 2018, the FASB issued ASU 2018-02, “Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income” (“ASU 2018-02”). ASU 2018-02 allows entities to elect to reclassify the income tax effects of the Tax Act on items within accumulated other comprehensive income to retained earnings and requires additional related disclosures. ASU 2018-02 is effective for the Company in the first quarter of its fiscal year ending June 30, 2020. The Company is currently evaluating the impact that ASU 2018-02 will have 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. Acquisition of ISP Optics Corporation

On December 21, 2016 (the “Acquisition Date”), the Company acquired 100% of the issued and outstanding shares of common stock (the “Acquisition”) of ISP pursuant to the Stock Purchase Agreement, dated as of August 3, 2016 (the “Purchase Agreement”). The Company’s Consolidated Financial Statements reflect the financial results of ISP’s operations beginning on the Acquisition Date.

Part of our growth strategy is to identify appropriate opportunities that would enhance our profitable growth through acquisition. As we developed our molded infrared capability and learned more about the infrared market, we became aware of larger business opportunities in this market that might be available with a broader range of product capability. We believed acquiring ISP would provide an excellent complementary fit with our business that would meet our requirement of profitable growth in a market space we are investing in, and saw the Acquisition as an opportunity to accelerate our growth, and expand our capabilities and our global reach.

For the purposes of financing the Acquisition, simultaneous with the closing, the Company sold 8,000,000 shares of its Class A common stock, raising net proceeds of approximately \$8.7 million. See Note 20, Public Offering of Class A Common Stock, to these Consolidated Financial Statements for additional information. The Company also closed a \$5 million Term Loan with Avidbank. See Note 18, Loans Payable, to these Consolidated Financial Statements for additional information.

In lieu of cash paid, the Company financed a portion of the Acquisition through the issuance of the Sellers Note in the aggregate principal amount of \$6 million to Joseph Menaker and Mark Lifshotz (the “Sellers”). For additional information, see Note 18, Loans Payable, to these Consolidated Financial Statements.

The Acquisition Date fair value of the consideration transferred totaled approximately \$19.1 million, which consisted of the following:

Cash Purchase Price	\$ 12,000,000
Cash acquired	1,243,216
Tax payable assumed debt	(200,477)
Fair value of Sellers Note	6,327,208
Working capital adjustment	(315,003)
Total purchase price	19,054,944
Sellers Note issued at fair value	(6,327,208)
Preliminary working capital adjustment	(760,822)
Adjustment to beginning cash	(163,878)
Adjustment to beginning assumed debt	(25,700)
Cash paid at Acquisition Date	<u>\$ 11,777,336</u>

Subsequently in March 2017, a portion of the working capital adjustment, in the amount of \$292,816, was applied to the Sellers Note as a payment, thereby decreasing the outstanding principal amount due under the Sellers Note, as reflected in these Consolidated Financial Statements.

The following table summarizes the estimated fair values of the assets acquired and liabilities assumed at the Acquisition Date:

Cash	\$ 1,243,216
Accounts receivable	1,108,980
Inventory	1,134,628
Other current assets	153,450
Property and equipment	4,666,634
Security deposit and other assets	45,359
Identifiable intangibles	11,069,000
Total identifiable assets acquired	<u>\$ 19,421,267</u>
Accounts payable	\$ (554,050)
Accrued expenses and other payables	(133,974)
Other payables	(146,324)
Deferred tax liability	(5,386,880)
Total liabilities assumed	<u>\$ (6,221,228)</u>
Net identifiable assets acquired	13,200,039
Goodwill	5,854,905
Net assets acquired	<u>\$ 19,054,944</u>

As part of the valuation analysis, the Company identified intangible assets, including customer relationships, customer backlog, trade secrets, trademarks and non-compete agreements. The customer relationships, customer backlog, trade secrets, trademarks and non-compete agreements were determined to have estimated values of \$3,590,000, \$366,000, \$3,272,000, \$3,814,000, and \$27,000, respectively, and estimated useful lives of 15, 2, 8, 8, and 3 years, respectively. The estimated fair value of identifiable intangible assets is determined primarily using the "income approach," which requires a forecast of all future cash flows. The estimated fair values of assets acquired reflects a \$2,744,262 adjustment to increase the basis of the acquired property, plant and equipment to reflect fair value of the assets at the Acquisition Date. The estimated useful lives range from 3 years to 10 years. Depreciation and amortization of intangible assets and property, plant and equipment is calculated on a straight-line basis. The estimated fair values of assets acquired and liabilities assumed also reflects a \$153,132 adjustment to increase the basis of the acquired inventory to reflect fair value of the inventory and a \$230,407 adjustment to decrease the basis of the acquired deferred revenue to reflect the fair value of the deferred revenue at the Acquisition Date. The tax effects of these fair value adjustments resulted in a net deferred tax liability of approximately \$5.4 million.

The goodwill recognized is attributable primarily to expected synergies and the assembled workforce of ISP. None of the goodwill is expected to be deductible for income tax purposes.

The Company recognized approximately \$650,000 of Acquisition related costs that were expensed during the year ended June 30, 2017. These costs are included in the Consolidated Statements of Comprehensive Income in the line item entitled "Selling, general and administrative." The Company also recognized approximately \$930,000 in expenses associated with the public offering of shares of Class A common stock, the net proceeds of which were used to provide funds to pay for a portion of the purchase price of the Acquisition. These expenses were deducted from the gross proceeds received as a result of the public offering of Class A common stock, as reflected in stockholders' equity. For additional information on this public offering, see Note 20, Public Offering of Class A Common Stock, to these Consolidated Financial Statements.

The amounts of revenue and net income of ISP included in the Company's Consolidated Statements of Comprehensive Income from the Acquisition Date to the period ending June 30, 2017 are as follows:

Revenue	\$ 8,009,349
Net income	\$ 981,125

Our Consolidated Financial Statements include the financial results of ISP's operations for the year ended June 30, 2018. The following represents unaudited pro forma consolidated information as if ISP had been included in the consolidated results of the Company for the year ended June 30, 2017:

	Year Ended June 30, 2017
Revenue – pro forma	\$ 34,498,656
Net income – pro forma	\$ 2,647,533

These amounts have been calculated after applying the Company's accounting policies and adjusting the results for Acquisition expenses and to reflect the additional interest expense and depreciation and amortization that would have been charged assuming the fair value adjustments to property, plant and equipment and intangible assets had been applied on July 1, 2015, together with the consequential tax effects. For the year ended June 30, 2017, pro forma net income reflects adjustments of approximately \$600,000 for amortization of intangibles and approximately \$250,000 in additional interest, and excludes approximately \$5.4 million for deferred tax benefits, approximately \$650,000 in Acquisition expenses and approximately \$600,000 of non-recurring fees incurred by ISP.

Prior to the Acquisition, the Company had a preexisting relationship with ISP. The Company ordered anti-reflective coating services from ISP on an arms' length basis. The Company had also partnered with ISP to develop and sell molded optics as part of a multiple lens assembly sold to a third party and had provided certain standard molded optics for resale through ISP's catalog. At the Acquisition Date, the Company had amounts payable to ISP of \$8,000 for services provided prior to the Acquisition and ISP had payables of \$24,500 due to the Company.

#### 4. Inventories, net

The components of inventories include the following:

	June 30, 2018	June 30, 2017
Raw materials	\$ 2,309,454	\$ 2,282,880
Work in process	2,506,891	1,654,653
Finished goods	2,263,121	1,904,497
Allowance for obsolescence	(674,725)	(767,454)
	<u>\$ 6,404,741</u>	<u>\$ 5,074,576</u>

During fiscal 2018 and 2017, the Company evaluated all allowed items and disposed of approximately \$188,000 and \$90,000, respectively, of inventory parts and wrote them off against the allowance for obsolescence.

The value of tooling in raw materials was approximately \$1.6 million at both June 30, 2018 and 2017.

## 5. Property and Equipment, net

Property and equipment consist of the following:

	<u>Estimated Life (Years)</u>	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Manufacturing equipment	5 - 10	\$ 16,534,124	\$ 13,804,964
Computer equipment and software	3 - 5	513,681	375,775
Furniture and fixtures	5	199,872	112,307
Leasehold improvements	5 - 7	1,350,482	1,228,797
Construction in progress		954,317	709,571
Total property and equipment		19,552,476	16,231,414
Less accumulated depreciation and amortization		7,743,235	5,906,856
Total property and equipment, net		<u>\$ 11,809,241</u>	<u>\$ 10,324,558</u>

During fiscal 2015, we extended the term of our Orlando lease and received a tenant improvement allowance from the landlord of \$420,014. This allowance was used to construct improvements and was recorded as leasehold improvements and deferred rent liability. It is being amortized over the corresponding lease term.

## 6. Goodwill and Intangible Assets

The change in the net carrying amount of goodwill for fiscal years 2018 and 2017 was as follows:

Goodwill at June 30, 2016	\$ -
Additions	5,854,905
Goodwill at June 30, 2017	<u>5,854,905</u>
Additions	-
Goodwill at June 30, 2018	<u>\$ 5,854,905</u>

The increase in goodwill during the first half of fiscal 2017 was due to the Acquisition of ISP. There were no changes to the carrying amount of goodwill during the year ended June 30, 2018.

Identifiable intangible assets as a result of the Acquisition of ISP were comprised of:

	<u>Useful Lives (Yrs)</u>	<u>June 30, 2018</u>	<u>June 30, 2017</u>
Customer relationships	15	\$ 3,590,000	\$ 3,590,000
Backlog	2	366,000	366,000
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		11,069,000	11,069,000
Less accumulated amortization		(2,011,030)	(693,947)
Total intangible assets, net		<u>\$ 9,057,970</u>	<u>\$ 10,375,053</u>

Future amortization of identifiable intangibles is as follows:

Fiscal year ending:

June 30, 2019	\$ 1,220,664
June 30, 2020	1,129,342
June 30, 2021	1,125,083
June 30, 2022	1,125,083
June 30, 2023 and later	4,457,798
	<u>\$ 9,057,970</u>

## 7. Accounts Payable

The accounts payable balance includes \$82,000 and \$73,000 of earned but unpaid board of directors' fees, as of June 30, 2018 and 2017, respectively.

## 8. Stockholders' Equity

The Company's authorized capital stock consists of 55,000,000 shares, divided into 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 our 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 our 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 our preferred stock as Series D Preferred Stock, none of which have been issued; however, in 1998, our 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 our 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 our 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 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. 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 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.

At June 30, 2017, the Company had outstanding warrants to purchase up to 501,474 shares of Class A common stock at \$1.22 per share, as adjusted, at any time through December 11, 2017. The warrants were issued in connection with a private placement in fiscal 2012. During fiscal 2018 and 2017, the Company received approximately \$534,000 and \$706,000, respectively, in net proceeds from the exercise of the June 2012 warrants. The Company issued 433,810 and 578,897 shares of Class A common stock during fiscal 2018 and 2017, respectively, in connection with these exercises. The June 2012 Warrants expired on December 11, 2017. There were no outstanding warrants as of June 30, 2018.

## 9. Income Taxes

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

	Year Ended June 30,	
	2018	2017
<b>Pretax income:</b>		
United States	\$ 359,027	\$ (485,966)
Foreign	(126,000)	3,847,752
Income before income taxes	<u>\$ 233,027</u>	<u>\$ 3,361,786</u>

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

	Year Ended June 30,	
	2018	2017
<b>Current:</b>		
Federal tax	\$ 57,315	\$ 98,787
State	-	-
Foreign	(117,852)	1,053,617
Total current	(60,537)	1,152,404
<b>Deferred:</b>		
Federal tax	(510,125)	(5,384,171)
State	(72,875)	(121,000)
Foreign	(183,540)	11,467
Total deferred	(766,540)	(5,493,704)
Total income tax (benefit)	<u>\$ (827,077)</u>	<u>\$ (4,341,300)</u>

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

	<b>Year Ended June 30,</b>	
	<b>2018</b>	<b>2017</b>
U.S. federal statutory tax rate	27.5%	34.0%
<b>Income tax provision reconciliation:</b>		
Tax at statutory rate:	\$ 64,082	\$ 1,143,010
Net foreign income subject to lower tax rate	25,927	(464,335)
State income taxes, net of federal benefit	(107,997)	2,418,932
Valuation allowance	(11,763,000)	(8,085,000)
Changes in statutory income tax rates	9,114,886	-
IRC 965 repatriation	1,809,603	-
Federal research and development and other credits	(163,165)	(118,128)
Stock-based compensation	43,818	100,469
Change in fair value of derivative warrants	53,524	158,965
Acquisition costs	-	75,332
Other permanent differences	30,758	(43,295)
Other, net	64,487	472,750
	<u>\$ (827,077)</u>	<u>\$ (4,341,300)</u>

#### *Tax Cuts and Jobs Act*

In December 2017, the U.S. enacted the Tax Cuts and Jobs Act (the "2017 Act"), which changes existing U.S. tax law and includes various provisions that are expected to affect companies. Among other things, the 2017 Act: (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.

As of June 30, 2018, we have not fully completed our accounting for the income tax impact of enactment of the 2017 Act. In accordance with SEC Staff Accounting Bulletin No.118, we have recognized provisional amounts for income tax effects of the 2017 Act that we were able to reasonably estimate. We intend to adjust the tax effects for the relevant items during the allowed measurement period. We are still evaluating certain aspects of the Tax Act and refining our calculations, which could potentially affect our tax balances.

We were also able to reasonably estimate the tax treatment of our foreign E&P as per the 2017 Act. The 2017 Act provides for a one-time transition tax on our post-1986 foreign E&P that have not been previously repatriated. We have provisionally determined our foreign E&P inclusion is \$6.9 million and anticipate that we will not owe any one-time transition tax due to utilization of U.S. net operating loss ("NOL") carryforward benefits against these earnings. However, we are still refining our calculations, including estimated foreign E&P layers for fiscal 2018, which could impact these amounts. Additionally, U.S. gross deferred tax assets and liabilities have been reduced by an estimated \$9.5 million based on the U.S. income tax rate change; however, this reduction was primarily offset by a corresponding reduction to the valuation allowance against the net deferred tax assets, which resulted in minimal net effect to the provision for income taxes as a result of the U.S. income tax rate change.

The Company currently intends to permanently invest earnings generated from its foreign Chinese operations, and, therefore, has not previously provided for future Chinese withholding taxes on such related earnings. However, if in the future the Company changes such intention, the Company would provide for and pay additional foreign taxes, if any, at that time.

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. During the three months ended December 31, 2017, the statutory tax rate applicable to LPOIZ was lowered from 25% to 15% in accordance with an incentive program for technology companies. The lower rate applies to LPOIZ's 2017 tax year, beginning January 1, 2017. Accordingly, we recorded a tax benefit of approximately \$100,000 during the year ended June 30, 2018 related to this retroactive rate change. For the fiscal year ended June 30, 2018, income taxes were accrued at the applicable rates. No deferred tax provision has been recorded for China, as the effect is deemed de minimis.

The Company's Latvian subsidiary is governed by the Law of Corporate Income Tax of Latvia, which is applicable to privately run and foreign invested enterprises, and which generally subjects such enterprises to a statutory rate of 15% on income reported in the statutory financial statements after appropriate tax adjustments. 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 rate of tax was changed to 20%; however, distribution amounts are first divided by 0.8 to arrive at the profit before tax amount, resulting in an effective tax rate of 25%. Our intent is to distribute profits from ISP Latvia to ISP, its parent company in the U.S.; therefore, we will accrue distribution taxes, if any, as profits are generated. With this change, the concept of taxable income and tax basis in assets and liabilities has been eliminated and is no longer relevant for determining income taxes; therefore, the previously recorded net deferred tax liability related to ISP Latvia was adjusted to zero during the fiscal year ended June 30, 2018, resulting in a tax benefit of approximately \$184,000.

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:

	<u>2018</u>	<u>2017</u>
Deferred tax assets:		
Net operating loss and credit carryforwards	\$ 16,282,000	\$ 29,014,000
Stock-based compensation	710,000	943,000
R&D and other credits	1,899,000	1,983,000
Capitalized R&D expenses	373,000	562,000
Inventory	143,000	243,000
Accrued expenses and other	83,000	407,091
Gross deferred tax assets	<u>19,490,000</u>	<u>33,152,091</u>
Valuation allowance for deferred tax assets	<u>(16,123,000)</u>	<u>(27,886,000)</u>
Total deferred tax assets	3,367,000	5,266,091
Deferred tax liabilities:		
Depreciation and other	(563,000)	(1,187,440)
Intangible assets	(2,180,000)	(3,976,000)
Total deferred tax liabilities	<u>(2,743,000)</u>	<u>(5,163,440)</u>
Net deferred tax asset	<u>\$ 624,000</u>	<u>\$ 102,651</u>

The above deferred balances include a reduction of approximately \$244,000 in federal credits related to alternative minimum tax ("AMT") that have been reclassified to income taxes receivable, as the Company expects to recover these amounts within the next five years due to changes made by the 2017 Act.

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 \$75 million prior to the expiration of NOL carry-forwards from 2019 through 2035. Based on the level of historical taxable income, management has provided for a valuation adjustment against the deferred tax assets of \$16,123,000 at June 30, 2018, a decrease of approximately \$11,763,000 as compared to June 30, 2017. The reduction in the valuation allowance for deferred tax assets as compared to the prior year is primarily the result of a \$9.5 million decrease resulting from the reduction of the U.S. statutory corporate income tax rate from a maximum of 35% to a flat 21%, effective January 1, 2018. The net deferred tax asset results from federal and state tax credits with indefinite carryover periods and approximately \$500,000 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, 2018, in addition to net operating loss carry-forwards, the Company also has research and development credit carry forwards of approximately \$1,630,000, of which \$38,505 will expire in fiscal 2019 and the remainder will expire from 2020 through 2036. 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.

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 tax 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 U.S. Federal income tax returns, and returns in various states and foreign jurisdictions. The Company's open tax years subject to examination by the Internal Revenue Service and the Florida Department of Revenue generally remain open for three years from the date of filing.

## 10. Compensatory Equity Incentive Plan and Other Equity Incentives

**Share-based payment arrangements** — The Omnibus Plan provides several available forms of stock compensation, including 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 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 \$4,900 and \$1,900 for fiscal 2018 and 2017, respectively, is included in the selling, general and administrative expense in the accompanying Consolidated Statements Comprehensive Income, 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	Outstanding	Available for
	Authorized	at June 30, 2018	Issuance at June 30, 2018
Omnibus Plan	5,115,625	2,654,482	1,650,870
2014 ESPP	400,000	—	358,008
	<u>5,515,625</u>	<u>2,654,482</u>	<u>2,008,878</u>

**Grant Date Fair Values and Underlying Assumptions; Contractual Terms**— The Company estimates the fair value of each stock 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, 2018 and 2017, the Company estimated the fair value of each stock award as of the date of grant using the following assumptions:

	Year Ended June 30,	
	2018	2017
Weighted-average expected volatility	63% - 75%	77% - 83%
Dividend yields	0%	0%
Weighted-average risk-free interest rate	1.28% - 2.82%	1.24% - 1.90%
Weighted-average expected term, in years	7.27	7.49

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, 2018 and 2017. 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, 2018 and 2017 is presented below:

	Shares	Stock Options Weighted- Average Exercise Price	Weighted- Average Remaining Contract	Restricted	
				Stock Units (RSUs)	
				Shares	Weighted- Average Remaining Contract
<b>June 30, 2016</b>	819,260	\$ 1.90	5.6	1,311,795	0.9
Granted	346,926	\$ 1.63	9.4	230,772	2.3
Exercised	—	—	—	(33,785)	—
Cancelled/Forfeited	(70,000)	\$ 4.04	—	—	—
<b>June 30, 2017</b>	1,096,186	\$ 1.68	6.3	1,508,782	0.9
Granted	68,849	\$ 3.88	—	140,571	2.2
Exercised	(127,813)	\$ 1.80	—	—	—
Cancelled/Forfeited	(32,093)	\$ 2.62	—	—	—
<b>June 30, 2018</b>	<u>1,005,129</u>	<u>\$ 1.77</u>	<u>6.3</u>	<u>1,649,353</u>	<u>0.9</u>
Awards exercisable/ vested as of					
<b>June 30, 2018</b>	786,710	\$ 1.63	5.7	1,287,370	—
Awards unexercisable/ unvested as of					
<b>June 30, 2018</b>	<u>218,419</u>	\$ 2.26	8.4	<u>361,983</u>	0.9
	<u>1,005,129</u>			<u>1,649,353</u>	

The total intrinsic value of stock options exercised for the years ended June 30, 2018 and 2017 was approximately \$1,000 and \$0, respectively.

The total intrinsic value of stock options outstanding and exercisable at June 30, 2018 and 2017 was approximately \$573,000 and \$803,000, respectively.

The total fair value of stock options vested during the years ended June 30, 2018 and 2017 was approximately \$103,000 and \$318,000, respectively.

The total intrinsic value of RSUs exercised during the years ended June 30, 2018 and 2017 was approximately \$0 and \$79,000, respectively.

The total intrinsic value of RSUs outstanding and exercisable at June 30, 2018 and 2017 was approximately \$3.0 million and \$2.8 million, respectively.

The total fair value of RSUs vested during the years ended June 30, 2018 and 2017 was approximately \$320,000 and \$386,000, respectively.

As of June 30, 2018, there was approximately \$484,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements, including share options and restricted stock units ("RSUs"), granted under the Omnibus Plan. The expected compensation cost to be recognized is as follows:

	<b>Stock Options</b>	<b>RSUs</b>	<b>Total</b>
Year ending June 30, 2019	21,953	264,982	286,935
Year ending June 30, 2020	8,926	149,944	158,870
Year ending June 30, 2021	5,939	29,978	35,917
Year ending June 30, 2022	2,021	—	2,021
	<u>\$ 38,839</u>	<u>\$ 444,904</u>	<u>\$ 483,743</u>

The table above does not include shares under the Company's 2014 ESPP, which has purchase settlement dates in the second and fourth fiscal quarters. The Company's 2014 ESPP is not administered with a look-back option provision and, as a result, there is not a population of outstanding option grants during the employee contribution period.

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 regarding our unexercisable/unvested awards as of June 30, 2018 and 2017 and changes during the two years then ended:

<b>Unexercisable/Unvested Awards</b>	<b>Stock Options Shares</b>	<b>RSU Shares</b>	<b>Total Shares</b>	<b>Weighted- Average Grant Date Fair Value: (per share)</b>
June 30, 2016	182,250	441,599	623,849	\$ 1.35
Granted	346,926	230,772	577,698	\$ 1.33
Vested	(275,915)	(233,459)	(509,374)	\$ 1.28
Cancelled/Forfeited	(8,750)	—	(8,750)	\$ 1.02
June 30, 2017	244,511	438,912	683,423	\$ 1.39
Granted	68,849	140,571	209,420	\$ 3.61
Vested	(85,191)	(217,500)	(302,691)	\$ 3.78
Cancelled/Forfeited	(9,750)	—	(9,750)	\$ 2.36
June 30, 2018	<u>218,419</u>	<u>361,983</u>	<u>580,402</u>	<u>\$ 1.53</u>

**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, 2018 and 2017 included in the accompanying Consolidated Statements of Comprehensive Income:

	<b>Year Ended June 30,</b>	
	<b>2018</b>	<b>2017</b>
Stock options	\$ 38,572	\$ 46,840
RSUs	334,982	348,035
Total	<u>\$ 373,554</u>	<u>\$ 394,875</u>

**The amounts above were included in:**

Selling, general & administrative	\$ 366,407	\$ 389,675
Cost of sales	5,910	3,876
New product development	1,237	1,324
	<u>\$ 373,554</u>	<u>\$ 394,875</u>

**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:

	<b>Year Ended June 30,</b>	
	<b>2018</b>	<b>2017</b>
Net income	\$ 1,060,104	\$ 7,703,086
Weighted-average common shares outstanding:		
<b>Basic number of shares</b>	25,006,467	20,001,868
Effect of dilutive securities:		
Options to purchase common stock	331,985	142,482
RSUs	1,387,348	1,167,540
Common stock warrants	85,668	354,502
<b>Diluted number of shares</b>	<u>26,811,468</u>	<u>21,666,392</u>
<b>Earnings per common share:</b>		
Basic	\$ 0.04	\$ 0.39
Diluted	\$ 0.04	\$ 0.36

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

Options to purchase common stock	739,864	378,278
RSUs	216,946	289,036
Common stock warrants	85,018	518,087
	<u>1,041,828</u>	<u>1,185,401</u>

## 12. Defined Contribution Plan

The Company provides retirement benefits to its U.S.-based employees through a defined contribution retirement plan. Until April 12, 2018, these benefits were offered under the ADP Total Source 401(k) plan (the "ADP Plan"). The ADP Plan was a defined 401(k) contribution plan, administered by a third party, that all U.S. employees, over the age of 21, were eligible to participate in after three months of employment. Under the ADP Plan, annual discretionary contributions could be made by the Company to match a portion of the funds contributed by employees. Effective April 12, 2018, all plan assets were transferred to the Insperty 401(k) plan (the "Insperty Plan"). The Insperty 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 Insperty Plan, the Company matches 100% of the first 2% of employee contributions. As of June 30, 2018, there were 56 employees who are enrolled in this plan. The Company made matching contributions of approximately \$34,000 during the year ended June 30, 2018. There were no matching contributions during the year ended June 30, 2017.

## 13. Lease Commitments

The Company has operating leases for its manufacturing and office space. At June 30, 2018, the Company has a lease agreement for its corporate headquarters and manufacturing facility in Orlando, Florida (the "Orlando Lease"). The Orlando Lease, which is for a seven-year original term with renewal options, expires in April 2022 and expanded our space to 25,847 square feet, including space added in July 2014. 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.

The Company received \$420,000 in a leasehold improvement allowance in fiscal 2015. This amount is included in the property and equipment and deferred rent on the Consolidated Balance Sheets. Amortization of leasehold improvements was approximately \$187,000 as of June 30, 2018. The deferred rent is being amortized as a reduction in lease expense over the term of the lease.

On April 20, 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 will provide additional manufacturing and office space near the Company's corporate headquarters. The anticipated commencement date of the Orlando Lease II is November 1, 2018, with a four-year original term with one renewal option for a five-year term. The Orlando Lease II provides for a tenant improvement allowance of up to \$309,450.

As of June 30, 2018, the Company, through its wholly-owned subsidiary, LPOI, has 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 2018, the Shanghai Lease was renewed for an additional one-year term, and now expires in October 2019.

As of June 30, 2018, the Company, through its wholly-owned subsidiary, LPOIZ, has a lease agreement for a manufacturing and office facility in Zhenjiang, China (the "Zhenjiang Lease") for 26,000 square feet. The Zhenjiang Lease, which is for a five-year original term with renewal options, expires in March 2019. During fiscal 2018, another lease was executed for 13,000 additional square feet in this same facility. This new lease has a 54-month term, and expires in December 2021.

At June 30, 2018, the Company, through its wholly-owned subsidiary ISP, has 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 is for a five-year original term with renewal options, expires in September 2020. We will be relocating the Irvington manufacturing operations to our existing facilities in Orlando and Riga during fiscal 2019, and some of the manufacturing operations currently performed in the Irvington facility will transition to our facility in Zhenjiang.

At June 30, 2018, the Company, through ISP's wholly-owned subsidiary ISP Latvia, has 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 is for a five-year original term with renewal options, expires in December 2019.

As of June 30, 2018, the Company has obligations under five capital lease agreements, entered into during fiscal years 2015, 2016, 2017 and 2018, with terms ranging from three to five years. The leases are for manufacturing equipment, which are included as part of property and equipment in the accompanying Consolidated Balance Sheets. Assets under capital lease include approximately \$1.5 million and \$749,000 in manufacturing equipment, with accumulated amortization of approximately \$646,000 and \$361,000 as of June 30, 2018 and 2017, respectively. Amortization related to assets under capital leases is included in depreciation expense.

Rent expense totaled \$1.0 million and \$770,000 during the years ended June 30, 2018 and 2017, respectively.

The approximate future minimum lease payments under capital and operating leases at June 30, 2018 were as follows:

Fiscal year ending June 30,	Capital Leases	Operating Leases
2019	\$ 360,256	\$ 909,000
2020	309,122	917,000
2021	234,478	679,000
2022	58,308	558,000
2023	—	60,869
Total minimum payments	<u>962,164</u>	<u>\$ 3,123,869</u>
Less imputed interest	<u>(104,838)</u>	
Present value of minimum lease payments included in capital lease obligations	857,326	
Less current portion	<u>307,199</u>	
Non-current portion	<u>\$ 550,127</u>	

#### 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.

#### 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. During the years ended June 30, 2018 and 2017, we recognized a gain of approximately \$141,000 and \$78,000 on foreign currency translation, respectively, included in the Consolidated Statements of Comprehensive Income in the line item entitled "Other income (expense), net." 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 gain of approximately \$474,000 and \$295,000 at June 30, 2018 and 2017, respectively.

Assets and net assets in foreign countries are as follows:

	China		Latvia	
	June 30, 2018	June 30, 2017	June 30, 2018	June 30, 2017
Assets	\$14.7 million	\$14.0 million	\$6.4 million	\$6.1 million
Net assets	\$12.6 million	\$12.3 million	\$5.9 million	\$6.0 million

#### 16. Supplier and Customer Concentrations

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 certain of our specialty 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 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 2018, sales to three customers comprised an aggregate of approximately 28% of our annual revenue, and 28% of accounts receivable as of June 30, 2018. In fiscal 2017, sales to three customers comprised an aggregate of approximately 26% of our annual revenue, and 26% of accounts receivable as of June 30, 2017. The loss of any of these customers, or a significant reduction in sales to any such customer, would adversely affect our revenues.

In fiscal 2018, 58% of our net revenue was derived from sales outside of the United States, with 84% of our foreign sales derived from customers in Europe and Asia. In fiscal 2017, 61% of our net revenue was derived from sales outside of the United States, with 88% of our foreign sales derived from customers in Europe and Asia.

#### 17. Derivative Financial Instruments (Warrant Liability)

On June 11, 2012, the Company executed a Securities Purchase Agreement with respect to a private placement of an aggregate of 1,943,852 shares of its Class A common stock at \$1.02 per share and the June 2012 Warrants to purchase up to 1,457,892 shares of its Class A common stock at an initial exercise price of \$1.32 per share, which was subsequently reduced to \$1.26, and then to \$1.22 on December 21, 2016 as a result of our public offering. The June 2012 Warrants are exercisable for a period of five years beginning on December 11, 2012. The Company accounted for the June 2012 Warrants issued to investors in accordance with ASC 815-10. ASC 815-10 provides guidance for determining whether an equity-linked financial instrument (or embedded feature) is indexed to an entity's own stock. This applies to any freestanding financial instrument or embedded feature that has all the characteristics of a derivative under ASC 815-10, including any freestanding financial instrument that is potentially settled in an entity's own stock.

Due to certain adjustments that may be made to the exercise price of the June 2012 Warrants if the Company issues or sell shares of its Class A common stock at a price that is less than the then-current warrant exercise price, the June 2012 Warrants have been classified as a liability, as opposed to equity, in accordance with ASC 815-10, as it was determined that the June 2012 Warrants were not indexed to the Company's Class A common stock.

The fair value of the outstanding June 2012 Warrants was re-measured at the end of each reporting period to reflect the then-current fair market value. The fair value was also re-measured upon each warrant exercise, to determine the fair value adjustment to the warrant liability related to the warrant exercise. As of June 30, 2017, there were 329,195 shares of Class A common stock underlying our outstanding June 2012 Warrants that were issued to investors. As of June 30, 2017, there were also 172,279 shares of Class A common stock underlying the outstanding June 2012 Warrants, which were issued to investment bankers, that do not require fair value re-measurement as they contain different provisions. The June 2012 Warrants expired on December 11, 2017. All warrants that required fair value re-measurement were exercised prior to expiration, and as such, the warrant liability was reduced to zero as of that date. The change in fair value of the June 2012 Warrants is recorded in the Consolidated Statements of Comprehensive Income, as estimated using the Lattice option-pricing model using the following range of assumptions for the respective periods:

Inputs into Lattice model for warrants:	Year Ended June 30,	
	2018	2017
Equivalent volatility	21.06% - 162.92%	47.39% - 75.80%
Equivalent interest rate	0.95% - 1.14%	0.62% - 1.13%
Floor	\$1.15	\$1.15
Stock price	\$2.56 - \$2.60	\$1.15 - \$3.25
Probability price < strike price	0.00%	4.70%
Fair value of call	\$1.13 - \$2.79	\$0.30 - \$2.04
Probability of fundamental transaction occurring	0%	0%

All warrants issued by the Company other than the above noted June 2012 Warrants are classified as equity.

The warrant liabilities were considered recurring Level 3 financial instruments. The following table summarizes the activity of Level 3 financial instruments measured on a recurring basis for the years ended June 30, 2018 and 2017:

	Warrant Liability
Fair value, June 30, 2016	\$ 717,393
Reclassification of warrant liability upon exercise	(694,436)
Change in fair value of warrant liability	467,543
Fair value, June 30, 2017	490,500
Reclassification of warrant liability upon exercise	(685,132)
Change in fair value of warrant liability	194,632
Fair value, June 30, 2018	\$ -

## 18. Loans Payable

### *Avidbank Note*

#### Amended LSA and Term Loan

On December 21, 2016, the Company executed the Second Amended and Restated Loan and Security Agreement (the "Amended LSA") with Avidbank for the acquisition term loan (the "Term Loan") in the aggregate principal amount of \$5 million and a working capital revolving line of credit (the "Revolving Line"). The Amended LSA amends and restates that certain Loan and Security Agreement between Avidbank and the Company dated September 30, 2013, as amended and restated pursuant to that certain Amended and Restated Loan and Security Agreement dated as of December 23, 2014, and as further amended pursuant to that certain First Amendment to Amended and Restated Loan and Security Agreement dated as of December 23, 2015.

The Term Loan, which was paid in full on January 16, 2018, pursuant to the Second Amendment, as defined below, was for a five-year term. Pursuant to the Amended LSA, interest on the Term Loan began accruing on December 21, 2016 and was paid monthly for the first six months of the term of the Term Loan. Thereafter, both principal and interest was due and payable in fifty-four (54) monthly installments. The Term Loan bore interest at a per annum rate equal to two percent (2.0%) above the Prime Rate; provided, however, that at no time was the applicable rate permitted to be less than five and one-half percent (5.50%) per annum. Prepayment was permitted; however, in order to prepay the Term Loan, certain prepayment fees applied.

Pursuant to the Amended LSA, Avidbank agreed, in its discretion, to make loan advances under the Revolving Line to us up to a maximum aggregate principal amount outstanding not to exceed the lesser of (i) One Million Dollars (\$1,000,000) or (ii) eighty percent (80%) (the "Maximum Advance Rate") of the aggregate balance of our eligible accounts receivable, as determined by Avidbank in accordance with the Amended LSA. Upon the occurrence and during the continuance of an event of default, Avidbank may, in its discretion, cease making advances and terminate the Amended LSA; provided, that at the time of termination, no obligations remain outstanding and Avidbank has no obligation to make advances under the Amended LSA. Avidbank also has the discretion to determine that certain accounts are not eligible accounts.

Amounts borrowed under the Revolving Line may be repaid and re-borrowed at any time prior to the maturity date, at which time all amounts shall be immediately due and payable. The advances under the Revolving Line bear interest, on the outstanding daily balance, at a per annum rate equal to one percent (1%) above the Prime Rate; provided, however, that at no time shall the applicable rate be less than four and one-half percent (4.5%) per annum. Interest payments are due and payable on the last business day of each month. Payments received with respect to accounts upon which advances are made will be applied to the amounts outstanding under the Amended LSA. There were no borrowings under the Revolving Line during the fiscal years ended June 30, 2018 and 2017. As of June 30, 2018 and 2017, there was no outstanding balance under the Revolving Line.

The Company's obligations under the Amended LSA are collateralized by a first priority security interest (subject to permitted liens) in cash, U.S. inventory, accounts receivable, inventory and equipment. In addition, the Company's wholly-owned subsidiary, Geltech, has guaranteed its obligations under the Amended LSA.

The Amended LSA contains customary covenants, including, but not limited to: (i) limitations on the disposition of property; (ii) limitations on changing our business or permitting a change in control; (iii) limitations on additional indebtedness or encumbrances; (iv) restrictions on distributions; and (v) limitations on certain investments. Additionally, the Amended LSA requires us to maintain a fixed charge coverage ratio (as defined in the Amended LSA) of at least 1.15 to 1.00 and an asset coverage ratio (as defined in the Amended LSA) of at least 1.50 to 1.00. The fixed charge coverage ratio was amended for the quarters ended March 31, 2018 and June 30, 2018, pursuant to the Third Amendment, as defined below. As of June 30, 2018, we were not in compliance with the fixed charge coverage ratio; however, Avidbank provided a waiver of compliance pursuant to that certain Fourth Amendment to the Amended LSA, dated September 7, 2018, entered into between us and Avidbank (the "Fourth Amendment"), as discussed below.

Late payments are subject to a late fee equal to the lesser of five percent (5%) of the unpaid amount or the maximum amount permitted to be charged under applicable law. Amounts outstanding during an event of default accrue interest at a rate of five percent (5%) above the interest rate applicable immediately prior to the occurrence of the event of default. The Amended LSA contains other customary provisions with respect to events of default, expense reimbursement, and confidentiality.

#### First Amendment to the Amended LSA

On December 20, 2017, the Company executed the First Amendment to the Amended LSA (the "First Amendment"). The First Amendment amended, among other items, the maturity date of the Revolving Line from December 21, 2017 to March 21, 2018, increased the maximum amount of indebtedness collateralized by permitted liens from \$600,000 to \$800,000 in the aggregate, and increased the aggregate amount the Company may maintain in accounts with financial institutions in Riga, Latvia from \$500,000 to \$1,000,000. The maturity date of the Revolving Line was extended to December 21, 2018, pursuant to the Second Amendment (as defined below).



### Second Amendment to the Amended LSA

On January 16, 2018, the Company entered into a Second Amendment to the Amended LSA (the "Second Amendment") relating to the Term Loan. Pursuant to the Second Amendment, Avidbank paid a single cash advance to the Company in an original principal amount of \$7,294,000 (the "Term II Loan"). The proceeds of the Term II Loan were used to repay all amounts owing with respect to the Term Loan, which was approximately \$4.4 million, with the remaining \$2.9 million in proceeds used to repay the amounts owing under the Sellers Note. As of January 16, 2018, the Term Loan was deemed satisfied in full and terminated. The Term II Loan is for a five-year term. Pursuant to the Second Amendment, interest on the Term II Loan accrues starting on January 16, 2018 and both principal and interest is due and payable in sixty (60) monthly installments beginning on the tenth day of the first month following the date of the Second Amendment (or February 10, 2018), and continuing on the same day of each month thereafter for so long as the Term II Loan is outstanding. The Term II Loan bears interest at a per annum rate equal to two percent (2.0%) above the Prime Rate, or 7.0% as of June 30, 2018; provided, however, that at no time shall the applicable rate be less than five-and-one-half percent (5.50%) per annum. Prepayment by the Company is permitted; however, the Company must pay a prepayment fee in an amount equal to (i) 0.75% of the Excess Prepayment Amount if prepayment occurs on or prior to January 16, 2019, or (ii) 0.5% of the Excess Prepayment Amount if prepayment occurs after January 16, 2019 but on or before January 16, 2020, or (iii) 0.25% of the Excess Prepayment Amount if prepayment occurs after January 16, 2020 but on or prior to January 16, 2021, or (iv) 0.10% of the Excess Prepayment Amount if such prepayment occurs after January 16, 2021 but on or prior to January 16, 2022. For purposes of the Second Amendment, the "Excess Prepayment Amount" equals the amount of the Term II Loan being prepaid in excess of \$2,850,000.

The Second Amendment amended, among other items, (1) certain definitions related to the fixed charge coverage ratio, and (2) the maturity date of the Revolving Line from March 21, 2018 to December 21, 2018.

Costs incurred of approximately \$72,000 were recorded as a discount on debt and will be amortized over the five-year term of the Term Loan. Additional costs of approximately \$60,000 were incurred in conjunction with the Second Amendment and were also recorded as a discount on debt, and the combined costs will be amortized over the five-year term of the Term II Loan. Amortization of approximately \$19,700 and \$7,700 is included in interest expense for the years ended June 30, 2018 and 2017, respectively.

### Third Amendment to the Amended LSA

On May 11, 2018, the Company and Avidbank entered into the Third Amendment to the Amended LSA ("the Third Amendment"). The Third Amendment (i) amends the definition of "Permitted Indebtedness" and (ii) amends Section 6.8(a) of the Amended LSA to require that the Company, and each of its domestic subsidiaries, maintain all of its domestic depository and operating accounts with Avidbank beginning on June 1, 2018 and to prohibit the Company from maintaining a domestic account balance outside of Avidbank that exceeds Ten Thousand Dollars (\$10,000) during the transition period. The Third Amendment also amends Section 6.9(a) of the Amended LSA to require that the Company maintain a fixed charge coverage ratio, as measured on June 30, 2018, of at least 1.10 to 1.00, and thereafter, beginning with the quarter ending on September 30, 2018, to maintain a fixed charge coverage ratio of at least 1.15 to 1.00. Additionally, pursuant to the Third Amendment, Avidbank granted the Company a waiver of default arising prior to the Third Amendment from its failure to comply with the fixed charge coverage ratio measured on March 31, 2018.

### Fourth Amendment to the Amended LSA

On September 7, 2018, the Company entered into the Fourth Amendment. Pursuant to the Fourth Amendment, Avidbank granted the Company a waiver of default arising prior to the Fourth Amendment from its failure to comply with the fixed charge coverage ratio covenant measured on June 30, 2018. Based on the waiver, the Company is no longer in default on the Term II Loan or Revolving Line. The Fourth Amendment also provides for the restriction of \$1 million of the Company's cash, which will be released upon two consecutive quarters of compliance with the fixed charge coverage ratio covenant, and so long as no event of default has occurred that is continuing on that date. The Fourth Amendment also provides that during the restrictive period, the calculation of the fixed charge coverage ratio will be determined as if the outstanding principal amount of the Term II Loan is \$1,000,000 less than the actual outstanding principal amount of the Term II Loan. As a result, the Term II Loan is classified in the Consolidated Balance Sheets according to the original minimum maturity schedule.

### *Sellers Note*

On December 21, 2016, the Company also entered into the Sellers Note in the aggregate principal amount of \$6 million. The Sellers Note was fully satisfied on January 16, 2018, as discussed in Note 19, Note Satisfaction and Securities Purchase Agreement, to these Consolidated Financial Statements.

Pursuant to the Sellers Note, during the period commencing on December 21, 2016 (the "Issue Date") and continuing until the fifteen-month anniversary of the Issue Date (the "Initial Period"), interest accrued on only the principal amount of the Sellers Note in excess of \$2.7 million at an interest rate equal to ten percent (10%) per annum. After the Initial Period, interest would have accrued on the entire unpaid principal amount of the Sellers Note from time to time outstanding, at an interest rate equal to ten percent (10%) per annum. Given that the Sellers Note was satisfied in full in January 2018, the Company paid interest semi-annually in arrears solely during the Initial Period. The Sellers Note originally had a five-year term. The Company had the right to prepay the Sellers Note in whole or in part without penalty or premium.

The Sellers Note was valued based on the present value of expected cash flows. The fair value of the Sellers Note was determined to be approximately \$6,327,200 based on the present value of expected future cash flows, using a risk-adjusted discount rate of 7.5%. The Sellers Note is included in loans payable, less current portion on the accompanying Consolidated Balance Sheet as of June 30, 2017. As of January 16, 2018, the date the note was satisfied in full, the fair value adjustment liability was approximately \$467,000. Upon satisfaction of the note, this amount was reduced to zero and the resulting gain in extinguishment of debt is in the accompanying Consolidated Statements of Comprehensive Income in the line item entitled "Interest expense, net."

There were no payment defaults or other events of default prior to the Sellers Note being paid in full on January 16, 2018. If a payment default, or any other "event of default," such as a bankruptcy event or a change of control of the Company had occurred, the entire unpaid and outstanding principal balance of the Sellers Note, together with all accrued and unpaid interest and any and all other amounts payable under the Sellers Note, would have been immediately be due and payable.

Future maturities of loans payable are as follows:

	<u>Avidbank Note</u>	<u>Unamortized Debt Costs</u>	<u>Total</u>
Year ending June 30,			
2019	\$ 1,458,800	\$ (22,924)	\$ 1,435,876
2020	1,458,800	(22,924)	1,435,876
2021	1,458,800	(22,924)	1,435,876
2022	1,458,800	(22,924)	1,435,876
2023	850,967	(15,875)	835,092
Total payments	\$ 6,686,167	\$ (107,571)	\$ 6,578,596
Less current portion			<u>(1,458,800)</u>
Non-current portion			<u>\$ 5,119,796</u>

## 19. Note Satisfaction and Securities Purchase Agreement

### *Note Satisfaction and Securities Purchase Agreement*

On January 16, 2018 (the "Satisfaction Date"), the Company entered into a Note Satisfaction and Securities Purchase Agreement (the "Note Satisfaction Agreement") with the Sellers with respect to the Sellers Note. At the closing of the Acquisition of ISP, as partial consideration for the shares of ISP, the Company issued the Sellers Note in the original principal amount of \$6,000,000, which principal payment amount was subsequently reduced to \$5.7 million, after applying the approximately \$293,000 working capital adjustment, as discussed in Note 3, Acquisition of ISP Optics Corporation, to these Consolidated Financial Statements.

Pursuant to the Note Satisfaction Agreement, the Company and the Sellers agreed to satisfy the Sellers Note in full by (i) converting 39.5% of the outstanding principal amount of the Sellers Note into shares of the Company's Class A common stock, and (ii) paying the remaining 60.5% of the outstanding principal amount of the Sellers Note, plus all accrued but unpaid interest, in cash to the Sellers. As of the Satisfaction Date, the outstanding principal amount of the Sellers Note was \$5,707,183, and there was \$20,883 in accrued but unpaid interest thereon (collectively, the "Note Satisfaction Amount"). Accordingly, the Company paid approximately \$3,453,582 plus all accrued but unpaid interest on the Sellers Note, in cash (the "Cash Payment") and issued 967,208 shares of Class A common stock (the "Shares"), which represents the balance of the Note Satisfaction Amount divided by the Conversion Price. The "Conversion Price" equaled \$2.33, representing the average closing bid price of the Class A common stock, as reported by Bloomberg for the five (5) trading days preceding the Satisfaction Date. The Cash Payment was paid using approximately \$600,000 of cash on hand and approximately \$2.9 million in proceeds from the Term II Loan from Avidbank. As of the Satisfaction Date, the Sellers Note was deemed satisfied in full and terminated.

The Shares issued to the Sellers were exempt from the registration requirements of the Securities Act of 1933, as amended (the "Act"), pursuant to Section 4(a)(2) of the Act (in that the Shares were issued by us in a transaction not involving any public offering), and pursuant to Rule 506 of Regulation D as promulgated by the SEC under the Act.

#### *Registration Rights Agreement*

In connection with the Note Satisfaction Agreement, the Company and the Sellers also entered into a Registration Rights Agreement dated January 16, 2018, pursuant to which the Company agreed to file with the Securities and Exchange Commission by February 15, 2018, and to cause to be declared effective, a registration statement to register the resale of the Shares issued to partially pay the Note Satisfaction Amount. The Registration Statement on Form S-3 (File No. 333-223028) was declared effective by the SEC on March 8, 2018.

#### **20. Public Offering of Class A Common Stock**

On December 16, 2016, the Company entered into an Underwriting Agreement (the "Underwriting Agreement") with Roth Capital Partners, LLC ("Roth Capital"), as representative of the several underwriters identified therein (collectively, the "Underwriters"), relating to the firm commitment offering of 7,000,000 shares of the Company's Class A common stock, at a public offering price of \$1.21 per share. Under the terms of the Underwriting Agreement, the Company also granted the Underwriters an option, exercisable for 45 days, to purchase up to an additional 1,000,000 shares of Class A common stock to cover any over-allotments.

On December 21, 2016, the Company completed its underwritten public offering of 8,000,000 shares of Class A common stock, which included the full exercise by the Underwriters of their option to purchase 1,000,000 shares of Class A common stock to cover over-allotments, at a public offering price of \$1.21 per share. The Company realized net proceeds of approximately \$8.7 million, after deducting underwriting discounts and commissions and estimated offering expenses. The net proceeds from the offering provided funds for a portion of the purchase price of the Acquisition of ISP, as well as provided funds for the payment of transaction expenses and other costs incurred in connection with the Acquisition.

The offering of the shares of Class A common stock was made pursuant to a Registration Statement on Form S-1, as amended (Registration No. 333-213860), which the SEC declared effective on December 15, 2016, and the final prospectus dated December 16, 2016.

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 13, 2018

By: /s/ J. James Gaynor

J. James Gaynor  
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/ J. JAMES GAYNOR  
J. James Gaynor  
September 13, 2018  
**J. James Gaynor**  
President & Chief Executive Officer  
(Principal Executive Officer)

/s/ DONALD O. RETREAGE, Jr.  
Donald O. Retreage, Jr.  
September 13, 2018  
**Donald O. Retreage, Jr.**  
Chief Financial Officer  
(Principal Financial Officer)

/s/ ROBERT RIPP  
Robert Ripp  
September 13, 2018  
**Robert Ripp**  
Director (Chairman of the Board)

/s/ SOHAIL KHAN  
Sohail Khan  
September 13, 2018  
**Sohail Khan**  
Director

/s/ DR. STEVEN R. J. BRUECK  
Dr. Steven R. J. Brueck  
September 13, 2018  
**Dr. Steven R. J. Brueck**  
Director

/s/ LOUIS LEEBURG  
Louis Leeburg  
September 13, 2018  
**Louis Leeburg**  
Director

/s/ M. SCOTT FARIS  
M. Scott Faris  
September 13, 2018  
**M. Scott Faris**  
Director

/s/ CRAIG DUNHAM  
Craig Dunham  
September 13, 2018  
**Craig Dunham**  
Director

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## FOURTH AMENDMENT

TO

**SECOND AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT**

This Fourth Amendment to Second Amended and Restated Loan and Security Agreement is entered into as of September 7, 2018 (the "Amendment"), by and between AVIDBANK ("Bank"), LIGHTPATH TECHNOLOGIES, INC. ("Parent") and ISP OPTICS CORPORATION ("ISP"). Parent and ISP are each also referred to as a "Borrower" and together as the "Borrowers".

RECITALS

Borrowers and Bank are parties to that certain Second Amended and Restated Loan and Security Agreement dated as of December 21, 2016 and as amended from time to time, including pursuant to that certain First Amendment to Second Amended and Restated Loan and Security Agreement dated as of December 20, 2017, that certain Second Amendment to Second Amended and Restated Loan and Security Agreement dated as of January 16, 2018 and that certain Third Amendment to Second Amended and Restated Loan and Security Agreement dated as of May 11, 2018 (collectively, the "Agreement"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1. Borrowers acknowledge that there is an existing and uncured Event of Default arising from Borrowers' failure to comply with Section 6.9(a) of the Agreement with respect to the Fixed Charge Coverage Ratio measured on June 30, 2018 (the "Covenant Default"). Subject to the conditions contained herein and performance by Borrowers of all of the terms of the Agreement after the date hereof, Bank waives the Covenant Default. Except as otherwise provided in the foregoing sentence, Bank does not waive Borrowers' obligations under such section after the date hereof, and Bank does not waive any other failure by Borrowers to perform their Obligations under the Loan Documents.

2. The following is added as a new Section 4.5 to the end of Section 4 of the Agreement:

4.5 Pledge of Cash Collateral. For so long as the Term II Loan is outstanding, One Million Dollars (\$1,000,000) of Borrowers' cash maintained at Bank (the "Cash Collateral") is hereby pledged to Bank as specific Collateral to secure Borrowers' Obligations. Borrowers authorize Bank to hold Cash Collateral in pledge and to decline to honor any withdrawals thereon or any request by Borrowers or any other Person to pay or otherwise transfer any part of the Cash Collateral. On the date of Bank's receipt of evidence satisfactory to Bank that the Fixed Charge Coverage Ratio has been least 1.15 : 1.00 for two consecutive calendar quarters, and as long as no Event of Default has occurred that is continuing on such date, the Cash Collateral shall be released from the foregoing restrictions and pledge.

3. Section 6.9(a) of the Agreement is amended and restated in its entirety to read as follows:

(a) **Fixed Charge Coverage Ratio.** Borrowers shall maintain a Fixed Charge Coverage Ratio of at least 1.15 to 1.00, measured at the end of each calendar quarter beginning with the quarter ending on September 30, 2018 on a rolling twelve (12) month basis. For so long as the Cash Collateral is pledged to Bank pursuant to Section 4.5, solely for purposes of calculating Borrowers' compliance with the foregoing sentence, the amount used to calculate clause (i) of subsection (b) of the definition of the Fixed Charge Coverage Ratio (with respect to the scheduled principal and interest payments to be made to Bank with respect to the Term II Loan) shall be calculated as if the outstanding principal amount of the Term II Loan is \$1,000,000 less than the actual outstanding principal amount of the Term II Loan.

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4. Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Each Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

5. Borrowers represent and warrant that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment, and that no Event of Default has occurred and is continuing.

6. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument. In the event that any signature is delivered by facsimile transmission or by e-mail delivery of a ".pdf" format data file, such signature shall create a valid and binding obligation of the party executing (or on whose behalf such signature is executed) with the same force and effect as if such facsimile or ".pdf" signature page were an original hereof. Notwithstanding the foregoing, Borrowers shall deliver all original signed documents no later than ten (10) Business Days following the date of execution.

7. As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

- (a) this Amendment, duly executed by Borrowers;
- (b) payment of a waiver fee in the amount of \$7,500 plus all Bank Expenses incurred through the date of this Amendment; and
- (c) such other documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate.

[SIGNATURE PAGE FOLLOWS]

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IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

BORROWERS:

LIGHTPATH TECHNOLOGIES, INC.

By: /s/ J. James Gaynor

Name: J. James Gaynor

Title: President and Chief Executive Officer

ISP OPTICS CORPORATION

By: /s/ J. James Gaynor

Name: J. James Gaynor

Title: President and Chief Executive Officer

BANK:

AVIDBANK

By: /s/ Lawrence F. LaCroix

Name: Lawrence F. LaCroix

Title: Executive Vice President

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Exhibit 21.1

Subsidiaries

GeTech 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

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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 13, 2018, relating to the consolidated financial statements, which appear in this Annual Report on Form 10-K.

MOORE STEPHENS LOVELACE, P.A.  
Orlando, Florida  
September 13, 2018

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Exhibit 23.2

**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 14, 2017, relating to the consolidated financial statements, which appear in this Annual Report on Form 10-K.

BDO USA, LLP  
Certified Public Accountants  
September 13, 2018

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that the undersigned constitutes and appoints J. James Gaynor 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, 2018, 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 31<sup>ST</sup> day of August 2018 by the following persons.

/s/ Robert Ripp  
Robert Ripp

/s/ J. James Gaynor  
J. James Gaynor

/s/ Sohail Khan  
Sohail Khan

/s/ Craig Dunham  
Craig Dunham

/s/ Steven Brueck  
Steven Brueck

/s/ Louis Leebug  
Louis Leebug

/s/ M. Scott Faris  
M. Scott Faris



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

I, J. James Gaynor, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended June 30, 2018 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.

Date: September 13, 2018

/s/ J. James Gaynor  
J. James Gaynor  
President and Chief Executive Officer

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**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, 2018 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.

Date: September 13, 2018

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

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**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, 2018 (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 13, 2018

/s/ J. James Gaynor

J. James Gaynor,  
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.

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**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, 2018 (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 13, 2018

/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.

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