As filed with the Securities and Exchange Commission on September 29, 2016
Registration No. 333
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933
LICHTDATH TECHNOLOGIES INC
LIGHTPATH TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)
Delaware 86-0708398
(State or other jurisdiction of (IRS Employer
incorporation or organization) Identification Number)
2603 Challenger Tech Court, Suite 100

LIGHTPATH TECHNOLOGIES INC

Form S-1

September 29, 2016

Orlando, Florida 32826

(407) 382-4003

(Address, including zip code, and telephone number, including area code of registrant's principal executive offices)

J. JAMES GAYNOR, PRESIDENT & CHIEF EXECUTIVE OFFICER

LightPath Technologies, Inc.

2603 Challenger Tech Court, Suite 100, Orlando Florida 32826

Telephone: (407) 382-4003

(Name, address, including zip code, and telephone number, including area code, of agent for service)

With a copy to:

Jeffrey E. Decker, Esq.

Oded Har-Even, Esq.

Baker & Hostetler LLP

Robert V. Condon III, Esq.

200 South Orange Avenue

Zysman, Aharoni, Gayer and Sullivan & Worcester LLP

Suite 2300

1633 Broadway

Orlando, Florida 32801

New York, New York 10019

(407) 649-4017

(212) 660-5000

Approximate date of commencement of proposed sale to the public: From time to time after the effectiveness of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same

offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Large accelerated filer Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of each classAmount of to be secumeristered to be	Proposed maximum offering price per share	Proposed maximum aggregate offering price(1)	Amount of registration fee
registered Class A Common Stock, par yalue 9,200,000 value \$0.01 per share (2) Preferred	\$1.77 (3)	\$16,284,000	\$1,639.80
Stock Purchase Rights (2)(4)	_	_	_
Total _{9,200,000} Offering	_	\$16,284,000	\$1,639.80

The proposed maximum aggregate price of the securities has been estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(a) under the Securities Act

- (1) of 1933, as amended (the "Securities Act"), and includes shares of Class A Common Stock, par value \$0.01 per share ("Class A Common Stock") that the underwriters have an option to purchase to cover over-allotments, if any.
 - Pursuant to Rule 416 of the Securities Act, there are also being
- (2) registered such indeterminable additional securities as may be issued to prevent dilution as a result of stock splits, stock dividends or similar transactions.
- (3) Calculated pursuant to Rule 457(c) of the Securities Act based on the price of \$1.77, which was the average of the high and low prices of the Class A Common Stock on September 22, 2016, as

reported on the NASDAQ Capital Market.
Our Class A Common Stock currently includes certain preferred stock purchase rights issued pursuant to that certain Rights Agreement, dated May 1, 1998 (filed as an exhibit to our Registration Statement on Form 8-A filed with the Securities and Exchange Commission on April 28, 1998), as amended on February 25, 2008 (filed as an exhibit to Amendment No. 1 to Form 8-A filed with the Securities and Exchange Commission on February 25, 2008) (the "Rights Agreement"), between the

(4) Registrant and Continental Stock Transfer & Trust
Company. Until the occurrence of certain events specified in the Rights Agreement, none of which have occurred, the preferred stock purchase rights are not exercisable, are evidenced by the certificate for our Class A Common Stock and will be transferred along with and only with, and are not severable from, our Class A Common Stock. The value attributable to the preferred stock purchase rights, if any, is reflected in the market price of our Class A Common Stock. No separate consideration will be payable for the preferred stock purchase rights.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT, WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933, AS AMENDED, OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy the securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED SEPTEMBER 29, 2016

PRELIMINARY PROSPECTUS		
Shares		
Class A Common Stock		
We are offering shares of our Class A common stock, par value \$0.01 per share ("Class A Common Stock"). Our Class A Common Stock is traded on the NASDAQ Capital Market ("NCM") under the symbol "LPTH." September 22, 2016, the last reported sale price of our Class A Common Stock was \$1.77 per share.		
We have granted the underwriters an option to purchase up to an additional shares of Class A Common Stock from us to cover over-allotments. The underwriters may exercise this option at any time and from time to time during the 45-day period from the date of this prospectus.		

No Exercise of Full Exercise of

	Over-Allotment Over-Allotment			
	Per		Per	Total
	Share		Share	
Offering price	\$	\$	\$	\$
Underwriting discounts and commissions (1)	\$	\$	\$	\$
Offering proceeds, before expenses, to us	\$	\$	\$	\$

On

⁽¹⁾ In addition, we have agreed to reimburse the underwriters for certain expenses. See "Underwriting" on page 83 for additional information.

Investing in our securities involves a high degree of risk. See the section entitled "Risk Factors" appearing on page 4 of this prospectus for a discussion of information that should be considered in connection with an investment in our securities.			
Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.			
The underwriters expect to deliver the shares of Class A Common Stock to the purchasers on or about, 2016.			
The date of this prospectus is, 2016.			
Sole Book-Running Manager			
Roth Capital Partners			

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You should rely only upon the information contained or incorporated by reference in this prospectus. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it.

The securities are not being offered in any jurisdiction where the offer is not permitted.

You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of this prospectus.

In this prospectus, we refer to information regarding potential markets for our products and other industry data. We believe that all such information has been obtained from reliable sources that are customarily relied upon by companies in our industry; however, we have not independently verified any such information.

PROSPECTUS SUMMARY

The following is a summary of what we believe to be the most important aspects of our business and the offering of our securities under this prospectus. We urge you to read this entire prospectus. Investing in our securities involves risks. Therefore, carefully consider the risk factors set forth under the section titled "Risk Factors" in this prospectus and in our most recent annual and quarterly filings with the Securities and Exchange Commission (the "SEC"), if any, as well as other information in this prospectus, before purchasing our securities. Each of the risk factors could adversely affect our business, operating results, and financial condition, as well as adversely affect the value of an investment in our securities.

Unless otherwise indicated or unless the context otherwise requires, all references in this prospectus to "LightPath," "we," "us," "our," or similar references mean LightPath Technologies, Inc. and our subsidiaries.

Company Overview

We manufacture optical components and higher level assemblies including precision molded glass aspheric optics, infrared aspheric lenses, GRADIUM glass 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 that we produce enable lasers and imaging devices to function more effectively.

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 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 26,000 square foot manufacturing 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.

Product Groups and Markets

During fiscal 2015, we started evaluating our business based on five product groups: low volume precision molded optics ("LVPMO"), high volume precision molded options ("HVPMO"), specialty products, infrared products, and non-recurring engineering ("NRE"). Our LVPMO product group consists of precision molded optics with a sales price greater than \$10 per lens that are 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 that are usually sold in larger lot quantities. Our infrared product group is comprised of both molded lens and assemblies. Our specialty product group is comprised of value-added products such as optical subsystems, assemblies, GRADIUM lenses, and isolators. Our NRE product group consists of those products we develop pursuant to product development agreements we enter into with customers. Typically, customers approach us and request that we develop new products or applications for our existing products to fit their particular needs or specifications. The timing and extent of any such product development is outside of our control.

We currently serve the following major markets; industrial, laser, defense, medical, telecommunications, and instrumentation. 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 HVPMO and LVPMO lenses are also used in applications for the telecommunications market, such as data centers, digital video distribution, wireless broadband, and machine-to-machine inteface, and, the laser market, such as laser tools, scientific and bench top lasers, and bar code scanners. 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 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 \$355 million 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 is derived from sales to unaffiliated companies that purchase our products to fulfill their customers' orders, as well unaffiliated companies that offer our products for sale in their catalogs. Our strategy is to leverage our technology, know-how, established low cost manufacturing capability, and partnerships to grow our business.

Proposed Acquisition

On August 3, 2016, we entered into a Stock Purchase Agreement (the "Stock Purchase Agreement"), by and among ISP Optics Corporation, a New York corporation ("ISP"), Joseph Menaker and Mark Lifshotz (the "ISP Stockholders"), and us, pursuant to which we will acquire (the "Acquisition") all of the outstanding common stock of ISP (the "Purchased Shares") for a purchase price of \$18 million (the "Purchase Price"), to be paid in a combination of cash (the "Cash Amount") and a promissory note (the "Note"). The Cash Amount, subject to a net working capital adjustment, debt adjustment, and cash adjustment as provided in the Stock Purchase Agreement, will not be less than \$12,000,000. The aggregate original principal amount of the Note will equal the Purchase Price less the Cash Amount, as adjusted pursuant to the Stock Purchase Agreement, but in no event less than \$3,000,000. We plan to use the net proceeds from this offering, together with proceeds from a loan from a third party lender, to fund the Cash Amount. For additional information see "The Proposed Acquisition of ISP" and "Use of Proceeds."

ISP Overview

ISP was incorporated in New York in 1993 and is a vertically integrated manufacturer offering a full range of infrared products from custom infrared optical elements to catalog and high performance lens assembly. ISP's core capabilities include crystal growth, conventional numerical control ("CNC") and conventional grinding, polishing, diamond turning, metrology, coatings, as well as optical and mechanical design, lens assembly, and testing. ISP manufactures its precision optical components, which includes spherical, aspherical, and diffractive coated infrared lenses, windows and prisms. ISP complements its lens offerings by developing a full spectrum of infrared coatings ranging from extreme high durability, anti-reflection coatings on Germanium, Silicon, and other infrared materials and crystals to complex beamsplitter, filter, and special protective coatings. Some of these coatings are also used by third party manufacturers. ISP manufactures optics using a wide variety of infrared crystals such as: Ge, Si, ZnSe, ZnS, CaF₂, GaAs, BaF₂, Amtir, Gasir, IG infrared glass, and others. ISP's infrared Lens Assembly product line includes A-thermal fixed focal length lenses for cooled and un-cooled cameras, including designs targeted for lightweight and compact models, as well as dual field-of-view lenses. ISP has a global manufacturing footprint with strategically located manufacturing facilities in both the United States and Europe, providing greater access to its customers and operational flexibility. ISP leverages its highly qualified and cost efficient labor force in its state-of-the-art European facility in Riga, Latvia to provide high quality and cost-effective solutions.

ISP's New York facility functions as its global headquarters for operations, marketing, and sales, while also providing manufacturing capabilities, optical coatings, optical and mechanical design, assembly, and testing.

ISP's wholly-owned subsidiary, ISP Optics Latvia, SIA, is a limited liability company founded in 1997 under the Laws of the Republic of Latvia ("ISP Latvia"). ISP Latvia manufactures high precision optics offering a full range of infrared products including catalog and custom infrared optics. ISP Latvia provides broad-scale optical manufacturing and a presence for international sales in Europe and the Middle East.

ISP's revenues in fiscal 2015 were \$12.12 million, compared to \$10.33 million in fiscal 2014, a 17% increase. ISP's revenues for the six months ended June 30, 2016 were \$6.39 million versus \$6.13 million for the six months ended June 30, 2015, a 4% increase. ISP's net income in fiscal 2015 was \$1.47 million versus approximately \$240,000 in the

prior period, a \$1.23 million increase. ISP's net income for the six month ended June 30, 2016 was \$825,000, compared to \$1.32 million in the prior period, a decrease of \$495,000. For additional information see "The Proposed Acquisition of ISP," "Business of ISP," and "Management's Discussion and Analysis of Financial Condition of Results of Operation – ISP."

Corporate Information

We were 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. Our principal offices are located at 2603 Challenger Tech Court, Suite 100, Orlando, Florida 32826. Our telephone number is (407) 382-4003. Our website address is http://www.lightpath.com, the content of which shall not be deemed incorporated by reference into this prospectus.

The Offering	
Securities offered	shares of Class A Common Stock (or shares of Class A Common Stock if the underwriters exercise the over-allotment option in full).
Offering price	\$
Class A Common Stock outstanding before this offering	15,653,258 shares (1)
Class A Common Stock to be outstanding after this offering	shares, assuming are issued in this offering (1)

Over-allotment option	The underwriters have an option for a period of 45 days after the date of this prospectus to purchase up to an additional shares of Class A Common Stock, on the same terms and conditions as set forth above, to cover any over-allotments.
	We estimate that we will receive net proceeds from this offering of approximately \$ million, or approximately \$ million if the underwriters exercise the over-allotment option in full, after deducting the estimated underwriting discounts and commissions and offering expenses.
Use of proceeds	We plan to use the net proceeds from this offering, together with proceeds from a loan from a third party lender, to fund the Cash Amount of the Purchase Price payable to the ISP Stockholders upon the Acquisition of the Purchased Shares. For a more complete description of our intended use of the net proceeds from this offering, see "Use of Proceeds" and "The Proposed Acquisition of ISP."
Risk factors	Investing in our securities involves a significant degree of risk. You should read the "Risk Factors" section beginning on page 4 and other information included in this prospectus for a discussion of factors you should carefully consider before investing in our securities.
NASDAQ Capital Market symbol	Our Class A Common Stock is listed under the symbol "LPTH."

Excludes (i) 819,260 shares of our Class A Common Stock issuable upon exercise of stock options outstanding and having a weighted-average exercise price of approximately \$1.19 per share; (ii) 1,311,795 shares of our Class A Common Stock underlying outstanding restricted stock units of which 870,196 have vested; (iii) 1,139,429 shares (1) of our Class A Common Stock reserved for issuance under our Amended and Restated Omnibus Incentive Plan (the "Plan"); (iv) 390,094 shares of our Class A Common Stock reserved for issuance under our Employee Stock Purchase Plan (the "2014 ESPP"); and (v) 1,023,606 shares of our Class A Common Stock issuable upon the exercise of all outstanding warrants.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully review and consider the risks and uncertainties described below, in addition to the other information presented in this prospectus or incorporated by reference into this prospectus, in light of your particular investment objectives and financial circumstances. The risks so described are not the only risks we face. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations. Our business, financial condition, results of operations, or prospects could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment.

Risks Related To Our Business and Financial Results

We have a history of losses. We achieved net income of \$1.41 million for fiscal 2016; however we incurred net losses of \$715,000 and \$313,000 for fiscal 2015 and 2014, respectively, and have a history of losses preceding such periods. As of June 30, 2016, we had an accumulated deficit of approximately \$204 million. We may incur losses in the future if we do not achieve sufficient revenue to maintain profitability. We expect revenue to grow by seeking to improve gross margins and generating additional sales, 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, resulting in a significant or complete loss of your investment.

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. To date, our operations have been largely funded from the proceeds of equity financings with some level of debt financing. We anticipate requiring additional capital in the future to support our operations and 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.

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 2016, we had sales to three customers that comprised approximately 25% of our annual revenue, with one customer at 10% of our sales, another customer at 8% of our sales, and the third customer at 7% of our sales. In fiscal 2015, we had sales to three customers that comprised approximately 27% of our annual revenue, with one customer at 11% of our sales, another customer at 10% of our sales, and the third customer at 6% 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, and, therefore, 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 2016, approximately 59% of our net revenues were from sales to international customers. In fiscal 2015, approximately 54% of our net revenues were from sales to international customers. 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;
- potentially adverse tax consequences, including the complexities of foreign value-added tax systems, restrictions on the repatriation of earnings, and changes in tax rates;
- terrorist attacks and security concerns in general; and
- political and economic instability.

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 increase 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. For example, the average selling price of our precision molded optics increased by 2% in fiscal 2016, as compared to fiscal 2015, due to a product mix shift in the LVPMO group with higher volumes sold to customers in the distribution, medical applications, and telecommunications sectors. If we are unable to offset this anticipated decrease 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. For example, our gross margin percentage for fiscal 2016 was 54% compared to 44% in fiscal 2015, primarily due to a \$3.6 million increase in revenues with a favorable product mix of higher margin products that resulted in higher sales prices and provided leverage of our increased sales volume against our fixed manufacturing overhead costs. 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 evaluate our business based on five product groups: LVPMOs, HVPMOs, infrared products, specialty products, and NREs. In fiscal 2016, sales of our LVPMOs generated approximately 42% of our net revenues, sales of our HVPMOs generated approximately 23% of our net revenues, sales of our infrared products generated approximately 10% of our net revenues, sales of our specialty products generated approximately 22% of our net revenues, and sales of our NRE products generated approximately 3% of our net revenues. Accordingly, in fiscal 2016, approximately 87% of our net revenues were derived from sales of our LVPMOs, HVPMOs, and specialty

products. In fiscal 2015, sales of our LVPMOs generated approximately 50% of our net revenues, sales of our HVPMOs generated approximately 19% of our net revenues, sales of our infrared products generated approximately 9% of our net revenues, sales of our specialty products generated approximately 20% of our net revenues, and sales of our NRE products generated approximately 2% of our net revenues. Accordingly, in fiscal 2015, approximately 89% of our net revenues were derived from our LVPMO, HVPMO, and specialty products. We expect the LVPMO, HVPMO, and specialty product groups to continue to account for a substantial portion of our total net revenues. 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.

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 Orlando facility and inter-company transactions in United States dollars in order to mitigate the impact of foreign currency fluctuations. However, in the future, a portion of our international revenues and expenses may be denominated in foreign currencies. Accordingly, we could experience the risks of fluctuating currencies and corresponding exchange rates. In fiscal years 2016, 2015, and 2014, we incurred a gain of approximately \$75,000 and losses of \$1,000 and \$1,100 on foreign currency translation, respectively. Any such fluctuations that result in a less favorable exchange rate could adversely affect our revenues, 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, have lowered in price due to the recent increase of the United States dollar against non-dollar-pegged currencies, especially the Euro and Reniminbi. 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.

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, and thereby an investment in our Class A Common Stock.

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. As a result, the value of your investment could be significantly reduced or completely lost.

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. 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 and Zhenjiang, China. Our revenues are dependent upon the continued operation of these facilities. The Orlando facility is subject to a lease that expires in April 2022, and the Zhenjiang facility is subject to a lease that expires in March 2019. 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 the other facility, 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 9001:2008 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.

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 we 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.

Risks Related To An Investment In Our Securities

Historically, our quarterly results have fluctuated and continued fluctuations could negatively impact our stock price. Revenues and results of operations are difficult to predict and may fluctuate substantially from quarter to quarter. As a result, the market price of our Class A Common Stock may also fluctuate substantially.

We may issue additional securities with rights superior to those of our Class A Common Stock, which could materially limit the ownership rights of our stockholders. We may offer additional debt or equity securities in private and/or public offerings in order to raise working capital or to refinance our debt. Our board of directors (our "Board") has the right to determine the terms and rights of any debt securities and preferred stock without obtaining the approval of the stockholders. It is possible that any debt securities or preferred stock that we sell would have terms and rights superior to those of our Class A Common Stock and may be convertible into shares of our Class A Common Stock. Any sale of securities could adversely affect the interests or voting rights of the holders of our Class A Common Stock, result in substantial dilution to existing stockholders, or adversely affect the market price of our Class A Common Stock.

The price of our Class A Common Stock has been, and may continue to be, subject to substantial volatility. Broad market fluctuations or fluctuations in our operations may adversely affect the price of our Class A Common Stock. The market for our Class A Common Stock is volatile, the bid-ask spread is often large, and the trading volume and activity can be low and sporadic. The price of our Class A Common Stock may fluctuate significantly in response to numerous factors, many of which are beyond our control, including:

volatility in the trading markets generally and in our particular market segment;

4 imited trading of our Class A Common Stock;

actual or anticipated fluctuations in our results of operations;

the financial projections we may provide to the public, any changes in these projections, or our failure to meet these projections;

announcements regarding our business or the business of our customers or competitors;

changes in accounting standards, policies, guidelines, interpretations, or principles;

actual or anticipated developments in our business or our competitors' businesses or the competitive landscape generally;

developments or disputes concerning our intellectual property or our offerings, or third-party proprietary rights;

announced or completed acquisitions of businesses or technologies by us or our competitors;

new laws or regulations or new interpretations of existing laws or regulations applicable to our business;

any major change in our Board or management;

sales of shares of our Class A Common Stock by us or our stockholders;

lawsuits threatened or filed against us; and