SemiLEDs Corp
Form 10-K
November 29, 2017

Table of Contents

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10 K

(Mark One)

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

For the fiscal year ended August 31, 2017

OR

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

For the transition period from to

Commission File Number: 001-34992

SemiLEDs Corporation

(Exact name of registrant as specified in its charter)

Delaware	20 2735523
(State or other jurisdiction of	(I.R.S. Employer
incorporation or organization)	Identification Number)
3F, No.11 Ke Jung Rd., Chu Nan Site,	
Hsinchu Science Park, Chu Nan 350,	
Miao Li County, Taiwan, R.O.C.	350
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number including area code: +886 37 586788

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

Title of each class	Name of each exchange on which registered
Common stock, par value $0.0000056 per share	The NASDAQ Stock Market

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

None

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

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

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

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

Large accelerated filer		Accelerated filer
Non-accelerated filer	(Do not check if a smaller reporting company)	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 of the Exchange Act). Yes No

The aggregate market value of voting stock held by non affiliates of the registrant as of February 28, 2017 (the last business day of the registrant's most recently completed second fiscal quarter), based upon the closing price of the common stock reported by the NASDAQ Capital Market on such date, was approximately $4.8 million. Shares of common stock held by each executive officer and director of the registrant and by each person who owns 10% or more of the registrant's outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Number of shares outstanding of the registrant's Common Stock, par value $0.0000056 per share, as of November 13, 2017: 3,543,915.

Table of Contents

SemiLEDs Corporation

Table of Contents

Smaller Reporting Company— Scaled Disclosure

Pursuant to Item 10(f) of Regulation S K promulgated under the Securities Act of 1933, as amended, as indicated herein, we have elected to comply with the scaled disclosure requirements applicable to “smaller reporting companies.”

Table of Contents

PART I.

Forward looking Statements

This Annual Report on Form 10 K contains forward looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements other than statements of historical facts contained in this Form 10 K, including statements regarding the future results of operations of SemiLEDs Corporation, or "we," "our" or the "Company," and financial position, strategy and plans, and our expectations for future operations, are forward looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward looking statements. The words "believe," "may," "should," "plan," "potential," "project," "will, "estimate," "continue," "anticipate," "design," "intend," "expect" and similar expressions are intended to identify forward look statements. We have based these forward looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, strategy, short term and long term business operations and objectives, and financial needs. These forward looking statements are subject to a number of risks, uncertainties and assumptions, including those described in Item 1A, Risk Factors. In light of these risks, uncertainties and assumptions, the forward looking events and circumstances discussed in this Form 10 K may not occur, and actual results and the timing of certain events could differ materially and adversely from those anticipated or implied in the forward looking statements as a result of many factors.

Although we believe that the expectations reflected in the forward looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We have not assumed any obligation to, and you should not expect us to, update or revise these statements because of new information, future events or otherwise.

Item 1. Business

Company Overview

We develop, manufacture and sell light emitting diode (LED) chips and LED components. Our products are used for general lighting applications, including street lights and commercial, industrial, system and residential lighting. Our LED chips may also be used in specialty industrial applications, such as ultraviolet, or UV, curing of polymers, LED light therapy in medical/cosmetic applications, counterfeit detection, LED lighting for horticulture applications, architectural lighting and entertainment lighting.

Utilizing our patented and proprietary technology, our manufacturing process begins by growing upon the surface of a sapphire wafer, or substrate, several very thin separate semiconductive crystalline layers of gallium nitride, or GaN, a process known as epitaxial growth, on top of which a mirror like reflective silver layer is then deposited. After the subsequent addition of a copper alloy layer and finally the removal of the sapphire substrate, we further process this multiple layered material to create individual vertical LED chips.

We package our LED chips into LED components, which we sell to distributors and a customer base that is heavily concentrated in a few select markets, including Taiwan, the United States and China (including Hong Kong). We also sell our "Enhanced Vertical," or EV, LED product series in blue, white, green and UV in selected markets. We sell our LED chips to packagers or to distributors, who in turn sell to packagers. Our lighting products customers are primarily original design manufacturers, or ODMs, of lighting products and the end users of lighting devices. We also contract other manufacturers to produce for our sale certain LED products, and for certain aspects of our product fabrication, assembly and packaging processes, based on our design and technology requirements and under our quality control specifications and final inspection process.

We have developed advanced capabilities and proprietary know how in:

- reusing sapphire substrate in subsequent production runs;
- optimizing our epitaxial growth processes to create layers that efficiently convert electrical current into light;
- employing a copper alloy base manufacturing technology to improve our chip's thermal and electrical performance;
- utilizing nanoscale surface engineering to improve usable light extraction;
- developing a LED structure that generally consists of multiple epitaxial layers which are vertically stacked on top of a copper alloy base; and
- developing low cost Chip Scaled Packaging (CSP) technology.

These technical capabilities enable us to produce LED chips and LED component products. We entered into a Foundry Services and Licensing Agreement with an ODM partner in December 2015 to assist us with the restructuring of our chips manufacturing operations. We granted our ODM partner a royalty-free, non-transferable, nonexclusive license to use our technology and intellectual property for internal use by the ODM partner's employees at its facilities for the purpose of manufacturing, testing and supplying us its products. The ODM partner is working with us to enable it to ODM vertical chips for us using our vertical technology. We believe these capabilities, know-how and

Table of Contents

partnership should also allow us to reduce our manufacturing costs and our dependence on sapphire, a costly raw material used in the production of sapphire-based LED devices.

We were incorporated in the State of Delaware on January 4, 2005 and sold our first LED chips in November 2005. We are a holding company for various wholly owned subsidiaries. SemiLEDs Optoelectronics Co., Ltd., or Taiwan SemiLEDs, is our wholly owned operating subsidiary, where a substantial portion of our assets are held and located, where a portion of our research, development, manufacturing and sales activities take place. Taiwan SemiLEDs owns a 100% equity interest in Taiwan Bandaoti Zhaoming Co., Ltd., formerly known as Silicon Base Development, Inc., which is engaged in the research, development, manufacture, and substantial portion of marketing and sale of LED products, including lighting fixtures and systems, and where most of our employees are based.

Our Technology

Our proprietary technology integrates copper alloy in a vertical LED structure. We first grow epitaxial layers on a sapphire wafer. The epitaxial layers are multiple doped GaN layers. At this point in the process, our structure has the following order: (i)sapphire; (ii)n doped GaN (N GaN); (iii)multi quantum well layers (MQWs); and (iv)p doped GaN (P GaN). Next, we deposit and define (by patterning and etching) multiple metal layers on the P GaN layer. These metal layers consist of several different mirror layers and copper alloy layers, which are deposited on top of the mirror layers by electroplating. The copper alloy metal layers, which are collectively called the P Contact Metal Layer, create low resistance contact with the P GaN layer.

We then remove the sapphire wafer from the N GaN layer through laser radiation, and the sapphire wafer is removed from the production line and recycled. The remaining device structure—consisting of the P Contact Metal Layer on top of the epitaxial layers— is then ready for further processing. To complete our LED device structure, we then deposit and define additional metal layers on top of the N GaN layers to achieve low resistance contact with the N GaN layers. These additional metal layers are collectively called the N Contact Metal Layer.

After this process, our final LED chip structure is: (i)copper alloy metal layer; (ii)P GaN; (iii)MQWs; (iv)N GaN; and (v)N contact Metal layer. Our final LED chip structure is diced into individual LED chips and then separated, tested and binned according to customer specifications, such as wavelength (color) and brightness. When a constant electrical current flows from our P Contact Metal Layer to our N Contact Metal Layer, light is generated in the MQWs and emitted through the surface of the N GaN.

A significant difference in our production process from conventional sapphire based LED chip production is our ability to recycle and re use the sapphire wafer multiple times. By reusing sapphire wafers, we reduce our dependence on sapphire and our wafer materials cost. In addition, the difference in the thermal expansion properties of the sapphire wafer and the doped GaN layers results in a "bowed" wafer due to the high temperatures used in the growth process. When the wafer "bows" significantly, the chip yield decreases substantially. Larger wafer sizes exacerbate the "bowing" effect. Our ability to remove the sapphire allows us to reduce wafer bowing during the patterning process.

We believe that most conventional GaN LEDs grown on sapphire wafers are based on a lateral design. However, we believe a superior combination of both light output efficiency and heat removal is realized in a vertical LED chip design with a copper alloy metal structure. Among pure metals at room temperature, copper has the second highest electrical and thermal conductivity, after silver. Heat is generated by passing electrical current through resistive materials. In our vertical LED chips, electrical current flows from the low resistance copper alloy base to the epitaxial layers also with low electrical resistance, thereby resulting in lower heat generation. Furthermore, due to the high thermal conductivity of the copper alloy layer, the heat generated in our device is effectively conducted to the packaging materials, where it can be dissipated through a heat sink. The resulting lower operating temperature helps to maintain LED device performance and reliability.

Once light is generated in the MQWs of our LED chips, the light is emitted out of the N GaN surface. Our chip uses a high reflectivity metal between the copper alloy layer and the P GaN surface that acts as a mirror to reflect light more effectively out of the internal structure of the device. In contrast, in conventional sapphire based LED devices, leakage can occur when light escapes through the sides of the substrate or is converted to heat due to the higher internal resistance of the device. Furthermore, by optimizing the internal structure and surface of our epitaxial layers through our proprietary nanosurface engineering, a greater portion of light is extracted after generation within the device, whereas conventional sapphire based LED devices have a semi transparent contact layer (STCL) which absorbs and reduces the amount of light that can be emitted vertically from the chip. We are also developing various packaging technologies, such as component cost reducing Advanced Packaging Technology called CSP, Multi Channel Emitters (MCE) and Chip On Board (COB).

Table of Contents

Our Products

Our core products are LED components, which are the most important part of our business, as well as LED chips and lighting products.

LED Chips

We produce and purchase a wide variety of blue, white, green and UV LED chips, including our EV LED product series, currently ranging from chip sizes of 380 microns, or µm, by 380µm to 1520µm by 1520µm. We sell our LED chips to packaging customers or to distributors, who in turn sell to packagers. Our LED chips are used primarily for applications in the specialty lighting market, including commercial, and industrial sectors. Our LED chips may be used in specialty industrial applications, such as UV curing of polymers, LED light therapy in medical/cosmetic applications, counterfeit detection, LED lighting for horticulture applications, and architectural lighting. Currently we focus mostly on UVLED applications. Revenues from sales of our LED chips represented 4% and 8% of our revenues for the years ended August 31, 2017 and 2016, respectively.

LED Components

We currently package a portion of our LED chips into LED components for sale to distributors and end-customers in selected markets. The majority of our LED components use chips that are greater than 860µm by 860µm, focusing on high wattage (>3W) applications. Our packaged products utilize high thermal conductivity aluminum nitride as the substrate and can be categorized into four different groups: UV, MCE, Automotives and Specialty lighting. Besides the standard products, we provide customization service for all market segments. Our UV LED product portfolio ranges from two to 200 electrical watts, and are designed for industrial applications such as printing, coating, curing, and medical/cosmetic uses. The MCE packages target entertainment, architectural, aquarium and horticultural lighting sectors. Variations of four, seven, 12, 16 channel LEDs allow users to control each LEDs separately to produce all colors in the visible light spectrum. We use specialized chip bonding technology to ensure minimal chip-to-chip distance in order to deliver optimized color mixing capability in compact packages. Automotive markets are technologically intensive sectors. We provide users with linear and tight light configuration that meets stringent customer demand. In July 2015, we received the Letter of Conformity for TS16949 automotive quality system certification. We intend to seek experienced partners to introduce our product to the new automotive market. We believe that an increase in public awareness and consumer interest as well as potential cost savings will generate a demand for automotive lighting technology. Specialty lighting consists of two products, 2016 series and infrared products. The 2016 series are used in smart phones camera flash modules while infrared products, with options of 30, 60, 90 and 120 degree view angles, are used in surveillance and IP cameras. In August 2015, we launched two UV COB module products: D4525 and D4825. These high density UV modules are suggested to be driven at 120W and 200W, respectively, with efficient thermal management. The modules are designed for various printing, curing, and PCB exposure industrial equipment, providing uncompromised reliability and optical output. Our LED components include different sizes and wattage to accommodate different demands in the LED market.

To differentiate ourselves from other LED package manufacturers, we are putting more resources towards module and system design. Along with our technical know-how in the chip and package sectors, we are able to further integrate electrical, thermal and mechanical manufacturing resources to provide customers with one-stop system services.

Services include design, prototyping, OEM and ODM. Key markets that we set to target at the system end include different types of UV LED industrial printers, aquarium lighting, medical applications, niche imaging light engines, horticultural lighting and high standard commercial lighting.

Our packaging process includes chip bonding, wire bonding, phosphor coating, encapsulation, scribing, dicing and testing. We may, from time to time, establish packaging operations in selected markets for sale to distributors and end-customers in such markets. We also contract with other manufacturers to produce for our LED components based on our design and technology requirements and under our quality control specifications and final inspection process. Revenues from sales of our LED components represented 73% and 76% of our revenues for the years ended August 31, 2017 and 2016, respectively.

Lighting Products

We design, assemble and sell lighting fixtures and systems for general lighting applications, including commercial, residential and industrial lighting. Our lighting products consist primarily of LED luminaries and LED retrofits. Our lighting product customers are primarily ODMs of lighting products and the end-users of lighting devices. Revenues from sales of our lighting products represented 14% of our revenues for both the years ended August 31, 2017 and 2016.

Table of Contents

Manufacturing

Our manufacturing operations are located in Taiwan. Starting in the fourth quarter of our fiscal 2011 and continuing through the first quarter of our fiscal 2018, we have suffered from the underutilization of our manufacturing capacity, primarily for our LED chips. Consequently, a portion of our manufacturing equipment was idled, resulting in significant excess capacity charges. We also use contract manufacturers to produce certain LED products, and for certain aspects of our product fabrication, assembly and packaging processes, based on our design and technology requirements and under our quality control specifications and final inspection process. We anticipate moving toward a fabless business model in which we would utilize foundry fabs to ODM our chips using our developed technology. As part of the restructuring, we plan to sell our chip manufacturing equipment to our ODM partner or others, which will help us to reduce the idle capacity costs.

Raw Materials and Components

We use the following raw materials in our LED chip manufacturing: metal organics, sapphire, copper alloy, gold slugs, sodium gold sulfite, aluminum granules and electrolytic nickel, among others. We use the following assembly materials in the production of our LED component products: gold bond wire, lead frame, ceramic substrate, phosphor, silicon zener-diode, silicone rubber, eutectic (AuSn) bonding material and silver paste, among others. We also purchase industrial and general chemicals and gases for the manufacture of both our LED chips and LED components. We do not manufacture our lighting products from the raw materials but we assemble our lighting products from individual components, such as LED emitters, electronic components, printed circuit boards, heat-sink, lenses and other metal and plastic components.

We purchase raw materials and components from a wide range of suppliers around the world. The raw materials and components we use are readily available. We have two or more suppliers for a majority of the raw materials we use. Historically, we have never experienced any significant delay or shortage in the supply of our raw materials and components.

Quality Management

We have implemented quality control measures at each stage of our operations, including obtaining supplier qualifications, inspecting incoming raw materials and random testing during our production process, to ensure consistent product yield and reliability. We test all new processes and new products prior to commercial production. We also inspect all final products prior to delivery to our customers to ensure that production standards are met. If we encounter defects, we conduct an analysis in an effort to identify the cause of the defect and take appropriate corrective and preventative measures. We provide standard product warranties on our products, which generally range from three months to two years. Our manufacturing fabs located in Hsinchu Science Park, Taiwan, are certified in compliance with ISO9001:2008. All these facilities are subject to periodic inspection by the relevant governmental authorities for safety, environmental and other regulatory compliance.

We require all of our employees involved in the manufacturing and engineering process to receive quality control training, according to a certification system depending on the level of skills and knowledge required. The training program is designed to ensure consistent and effective application of our quality control procedures.

Sales and Marketing

We market and sell our products through both our direct sales force and distributors. We primarily sell our LED components to distributors and end-customers in selected markets, such as Taiwan, the United States and China. Our packaging customers package our LED chips and sell the packaged product to distributors or end-customers. Our distributors resell our LED chips either to packagers or to end-customers. We sell our LED chips to packagers and distributors. Our lighting product customers consist primarily of ODMs of lighting products and the end-users of lighting devices with the sales made by our direct sales force.

Our direct sales force is primarily based in Taiwan. We assign our sales personnel to different geographic regions so that they can keep abreast of trends in specific markets. We plan to continue expanding our sales coverage in Asia as we grow our business. In addition, we may enter into strategic relationships with companies in Taiwan or other countries that we believe may provide strategic value to us.

We focus our marketing efforts on brand awareness, product advantages and qualified lead generation. We rely on a variety of marketing strategies, including participation in industry conferences and trade shows, to share our technical message with customers, as well as public relations, industry research and online advertising.

Customers

We package our LED chips into LED components, which we sell to distributors and end-customers in selected markets. In addition, we sell a portion of our LED chips products to packaging customers and LED chip distributors. Sales to distributors represented 2% and 4% of our revenues for the years ended August 31, 2017 and 2016, respectively.

4

Table of Contents

We have historically derived a significant portion of our revenues from a limited number of customers. For the years ended August 31, 2017 and 2016, our top ten customers collectively accounted for 69% and 60%, respectively, of our revenues. Some of our largest customers and what we produce or have produced for them have changed from quarter to quarter primarily as a result of the timing of discrete, large project-based purchases and broadening customer base, among other things. For the years ended August 31, 2017 and 2016, sales to our three largest customers, in the aggregate, accounted for 49% and 39% of our revenues, respectively. For the year ended August 31, 2017, sales to Revlon, Inc. accounted for 36% of our total revenues. For the year ended August 31, 2016, sales to Revlon, Inc. and Illumitex, Inc. accounted for 23% and 11% of our total revenues, respectively.

Our revenues are concentrated in a few select markets, including Taiwan, the United States and China (including Hong Kong). Net revenues generated from sales to customers from these countries, in the aggregate, accounted for 71% and 79% of our net revenues for the years ended August 31, 2017 and 2016, respectively. We expect that our revenues will continue to be substantially derived from these countries for the foreseeable future. Given that we are operating in a rapidly changing industry, our sales in specific markets may fluctuate from quarter to quarter. Therefore, our financial results will be impacted by general economic and political conditions in these markets.

Our Joint Ventures and Investments

We have grown our business in part through strategic alliances and acquisitions, and may from time to time continue to grow our operations by participating in joint ventures, making acquisitions or establishing other strategic alliances with third parties in the LED and LED-related industries. Although we do not have any current joint ventures, we will continue to explore new opportunities for strategic alliances.

Intellectual Property

Our ability to compete successfully depends upon our ability to protect our proprietary technologies and other confidential information. We rely, and expect to continue to rely, on a combination of confidentiality and license agreements with our employees, licensees and third parties with whom we have relationships, and trademark, copyright, patent and trade secret protection laws, to protect our intellectual property, including our proprietary technologies and trade secrets.

As of August 31, 2017, we had 153 patents issued and three patents pending with the United States Patent and Trademark Office covering various aspects of our core technologies. As of August 31, 2017, we also had 197 patents issued and four patents pending before patent and trademark offices outside the United States. Of these 350 issued patents, 50 expire between the years 2018 and 2022, 167 expire between the years 2023 and 2027, 125 expire between the years 2028 and 2034, and 8 expire after year 2034. Seventy of our issued patents are design patents and one of our pending patents is a design patent. On October 25, 2017, we sold four US patents to an LED manufacturer for $500,000. We believe that factors such as the technological and innovative abilities of our personnel, the success of our ongoing product development efforts and our efforts to maintain trade secret protection are more important than patents in maintaining our competitive position. We pursue the registration of certain of our trademarks in the United States, Taiwan and China and have been granted trademarks with respect to “SemiLEDs” in the United States and “MvpLED” in China

Our industry is characterized by frequent intellectual property litigation involving patents, trade secrets, copyrights, mask designs, among others. From time to time, third parties may allege that our products infringe on their intellectual property rights. Defending against any intellectual property infringement claims would likely result in costly litigation and ultimately may lead to our not being able to manufacture, use or sell products found to be infringing. Furthermore, other third parties may also assert infringement claims against our customers with respect to our products, or our customers' products that incorporate our technologies or products. Any such legal action or the threat of legal action against us, or our customers, could impair such customers' continued demand for our products. This could prevent us from growing or even maintaining our revenues, or cause us to incur additional costs and expenses, and adversely affect our financial condition and results of operations. See "Risk Factors— Risks Related to Our Business— Intellectual property claims against us or our customers could subject us to significant costs and materially damage our business and reputation."

Research and Development

We focus our research and development efforts on our design methodology and process technology for our LED products. We also focus on improving our production yields and increasing wafer sizes to lower our production costs. Our research and development team works closely with our manufacturing team. For the years ended August 31, 2017 and 2016, we invested approximately $0.9 million and $2.0 million, respectively, in research and development activities. We conduct our research and development activities at our manufacturing facilities in Taiwan. Our future research and development strategy will primarily focus on developing new products in collaboration with our ODM partners utilizing our vertical technology and our expertise in the manufacturing of LED components. We expect to be continually engineering new products and systems, as well as enhancements to existing products, to meet the needs of our customers. By leveraging the fabless business model, we expect to be able to minimize our own research and development costs associated with chip products, increase the scale of our business without increasing overhead and diversify our business risk among many sales channels.

Table of Contents

Competition

We believe that our advanced technology helps us to compete in the innovative, intensely competitive and rapidly changing market of LED design and manufacturing. To succeed, however, we must continue to manufacture products that meet the demanding requirements of high performance at low costs. We do not account for a significant percentage of the total market volume today, and we face significant competition from other more established providers of similar products as well as from new entrants into our markets.

We compete with many LED chip manufacturers and LED packaging manufacturers. With respect to our LED chips and LED components, we primarily compete with Cree, Seoul Viosys Co., Ltd. or SVC, Everlight, LiteOn, LED Engin, Nichia Corporation, or Nichia, Philips (Lumileds), Osram-OS GmbH and Edison Opto Corporation, or Edison. We have a number of competitors that compete directly with us and are much larger than us, including, among others, Cree, Nichia, Philips (Lumileds) and Osram-OS GmbH. Several substantially larger companies, such as Philips (Lumileds) and Osram-OS GmbH, compete against us with a relatively small segment of their overall business. In addition, several large and well-capitalized semiconductor companies, such as Samsung Electronics Co., Ltd., or Samsung, LG Innotek Co., Ltd., or LG Innotek, have entered into the LED chip and UV market. These potential competitors have extensive experience in developing semiconductor chips, which is similar to the manufacturing process for LED chips and LED packaging. We are also aware of a number of well-funded private companies that are developing competing products. We will also compete with numerous smaller companies entering the market, some of whom may receive significant government incentives and subsidies pursuant to government programs designed to encourage the use of LED lighting and to establish LED-sector companies.

Some of our existing and potential competitors possess significant advantages, including longer operating histories, greater financial, technical, managerial, marketing, distribution and other resources, more long-standing and established relationships with our existing and potential customers, greater name recognition, larger customer bases and greater government incentives and support.

We believe that the key competitive factors in our markets are:

- consistently producing high-quality LED chips with high efficacy;
- balancing lumen output generation with providing low lumen cost;
- providing a low total cost of ownership (i.e., cost, efficacy and lifespan) for end-customers;
- producing UVA LED for niche markets where customers value quality and performance more than cost; and
- our sales channels.

Competition in the markets for LED products is intense, and we expect that competition will continue to increase, thereby creating a highly aggressive pricing environment. Some of our competitors have in the past reduced their average selling prices, and the resulting competitive pricing pressures have caused us to similarly reduce our prices, accelerating the decline in the gross margin of our products. When prices decline, we must also write down the value of our inventory.

In the lighting market, we face competition from fixtures and bulbs manufactured and marketed by other LED lighting fixture companies and from lighting products incorporating incandescent, fluorescent, halogen, ceramic metal halide or other lighting technology. In addition to lighting companies such as Cree, Philips (Lumileds) and Osram-OS

GmbH, which are substantially larger and more established than us, we are also competing with numerous smaller companies that have traditionally been in the lighting industry and industrial LED industry or recently entered into the LED lighting market and industrial LED market.

Environmental Regulation

In our research and development and manufacturing processes, we use a variety of hazardous materials and industrial chemicals. In each of the jurisdictions in which we operate, we are subject to a variety of laws and regulations governing the exposure to and storage, handling, emission, discharge and disposal of these materials or otherwise relating to the protection of the environment. Environmental laws and regulations are complex and subject to constant change, with a tendency to become more stringent over time. Failure to comply with any new or existing laws, whether intentional or inadvertent, could subject us to fines, penalties and other material liabilities to the government or third parties, injunctions requiring the suspension of operations, redemption costs or other remedies, and the need for additional capital, equipment or other process requirements, any of which could have a material adverse effect on our business and reputation.

Working Capital

For a discussion of our working capital practices, see “Liquidity and Capital Resources” in Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations, of this Annual Report.

Table of Contents

Employees

As of August 31, 2017, we had approximately 187 employees. Most of these employees were based in Taiwan, with a small number of employees in China. None of our employees is represented by a labor union. We consider relations with our employees to be good.

Financial Information about Geographic Areas

We derive a substantial portion of our revenue from product sales to international customers. For information concerning geographic areas of our customers and geographic information concerning our long lived assets, see Note 12, "Product and Geographic Information," of the Notes to Consolidated Financial Statements in Item 8, Financial Statements and Supplementary Data, of this Annual Report. International operations expose us to risks that are different from operating in the United States, including foreign currency translation and transaction risk, risk of changes in tax laws, application of import/export laws and regulations and other risks described further in Item 1A, Risk Factors, of this Annual Report.

Available Information

Our website is www.semileds.com. We make available free of charge through our website our Annual Report on Form 10 K, quarterly reports on Form 10 Q, current reports on Form 8 K and any amendments to those reports filed or furnished pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, as soon as reasonably practicable after such materials are electronically filed with or furnished to the SEC. Our SEC reports can be accessed through the "Investors" section of our website. The information found on our website is not part of this or any other report we file with or furnish to the SEC. A copy of our Annual Report on Form 10 K is available without charge to stockholders upon written request to: Investor Relations, SemiLEDs Corporation, 3F, No.11 Ke Jung Rd., Chu Nan Site, Hsinchu Science Park, Chu Nan 350, Miao Li County, Taiwan, R.O.C.

Item 1A. Risk Factors

A wide range of factors could materially affect our performance. The following factors and other information included in this Annual Report should be carefully considered. Although the risk factors described below are the ones management deems significant, additional risks and uncertainties not presently known to us or that we presently deem less significant may also impair our business operations. If any of the following risks actually occur, our business, operating results, and financial condition could be adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment.

Risks Related to Our Business

We do not expect to complete the sale of a note for $1.6 million and if we are ordered to return a $500 thousand payment, we may not be able to continue as a going concern.

We entered into a definitive purchase agreement effective July 6, 2016 with Dr. Peter Chiou, which was assigned to Well Thrive on August 4, 2016. Pursuant to the agreement, Well Thrive purchased 577 thousand newly issued shares of common stock for $2,885 thousand on August 23, 2016. Well Thrive also agreed to subscribe to a $1,615 thousand SemiLEDs Corporation's 0% interest convertible note (the "Note") with a September 29, 2017 maturity date. Subject to shareholder approval at the Company's next shareholders meeting, the Note would be convertible, at the Company's option, into a number of shares of the Company's common stock equal to the quotient obtained by dividing (x) $1,615,000 by (y) the conversion price, which is equal to the lesser of $3.40 or the 5-trading day volume weighted average price of the common stock on the NASDAQ Stock Market ending on the maturity date. We received $500 thousand of the total $1,615 thousand Note amount on August 16, 2016. On December 16, 2016, we sent a formal notice of demand under purchase agreement to Dr. Peter Chiou and Well Thrive and requested them to deliver the $1,115 thousand balance of the Note purchase price by December 31, 2016, which deadline was extended to January 7, 2017. On January 6, 2017, Well Thrive informed us that it was not prepared to complete the purchase of the Note at this time and demanded the return of the $500 thousand advance and the $2,885 thousand for the shares purchased by Well Thrive in August 2016. The agreement provides that any deposit may be retained by us as liquidated damages if Well Thrive did not complete the purchase of the Note by December 31, 2016. On June 21, 2017, Well Thrive filed a complaint in the United States District Court for the District of Delaware seeking return of the $500 thousand payment. Well Thrive alleges that the liquidated damages provision is unenforceable as an illegal penalty and does not reflect the amount of purported damages. Any judgment requiring us to return amounts previously paid by Well Thrive would impact the viability of our liquidity plan and our ability to continue as a going concern.

Our strategy to sell a portion of one of our subsidiaries may not be successful.

In order for us to transition our operations to a fabless business model, we must establish partnering arrangements with our strategic partner. One of these partnering arrangements may involve selling a portion of one of our subsidiaries in which the non-controlling interest in our financial statements may increase. The success of this strategy is, however, subject to a number of factors over which we have little or no control, such as the approval of the strategic partner's investment committee. As such, the acquisition process may take a number of months

Table of Contents

before we can commence implementation. In addition, non-controlling ownership, if significant, carries numerous risks, including dependence on the partner to facilitate the acquisition of any necessary licenses and permits, as well as our ability to direct the subsidiaries policies and strategies. Our strategic partner may have different business methods which we may be unfamiliar with and may not be able to implement our business model in new areas as efficiently and quickly as we have been able to do. Such an impairment of full control may have an adverse effect on our business, results of operations and financial position.

We have also sold certain patents, generally for technology that we are not actively developing. While we plan to continue to monetize our patent portfolio through sales of non-core patents, we may not be able to realize adequate interest or prices for those patents. Accordingly, we cannot provide assurance that we will be able to generate revenue from these sales.

We have incurred net losses in recent periods and may require additional financing. If financing is not available, we may be required to further downsize or discontinue operations.

We incurred net losses attributable to SemiLEDs stockholders of $4.1 million and $21.3 million for the years ended August 31, 2017 and 2016, respectively. We can give no assurance that we will not incur net losses in future periods. Our revenue and operating results may continue to decline for a variety of reasons, some of which are described elsewhere in this “Risk Factors” section and are beyond our control. As of August 31, 2017, we had an accumulated deficit of $171.3 million. Further, at August 31, 2017, our cash and cash equivalents was down to $3.6 million. These facts and conditions raise substantial doubt about our ability to continue as a going concern and our independent registered public accounting firm has included an explanatory paragraph regarding going concern qualification in its audit report. However, our management believes it has developed a liquidity plan, as further described in elsewhere in this annual report that if executed successfully should provide sufficient liquidity to meet our obligations as they become due for a reasonable period of time. While we believe that these liquidity plan measures will be adequate to satisfy our liquidity requirements for the twelve months ending August 31, 2018, there is no assurance that the liquidity plan will be successfully implemented. Failure to successfully implement the liquidity plan may have a material adverse effect on our business, results of operations and financial position, and may adversely affect our ability to continue as a going concern. If we do not become consistently profitable, our accumulated deficit will grow larger and our cash balances will decline further, and we will require additional financing to continue operations. Any such financing may not be accessible on acceptable terms, if at all. If we cannot generate sufficient cash or obtain additional financing, we may be required to downsize our business further or discontinue our operations altogether.

We depend on contract manufacturing for portions of our supply chain. The inability of our contract manufacturers to produce products that satisfy our requirements may have a material adverse effect on our business.

From time to time, we may use contract manufacturers to produce products or some parts of our products. For example, we are moving toward a fabless business model in which we would utilize foundry fabs to ODM our chips using our developed technology for outsourcing the manufacturing of our vertical chips. Our reliance on such contract manufacturers exposes us to a number of significant risks, including:

- reduced control over delivery schedules, quality assurance, manufacturing yields and production costs;
- lack of guaranteed production capacity or product supply; and

- the possible breach of the manufacturing agreement by the contract manufacturers because of factors beyond our control.

If these contract manufacturers fail to deliver products on time and at a satisfactory level of quality, we could have difficulties fulfilling our customer orders and our net revenues could decline. If our contract manufacturers were to become unable or unwilling to continue to manufacture our products at requested quality, quantity, yields and costs, or in a timely manner, our business and reputation could be seriously harmed. For example, only recently completed the qualification for the chip products manufactured by the ODM partner using their facilities. The delay in delivering products on time at a satisfactory level of quality has resulted in difficulties fulfilling our customer orders. As a consequence, our revenues attributable to the sales of our LED chips declined. Our business and reputation could be seriously harmed if the challenges relating to the delay in the transition toward the fabless business model are not resolved soon. As a result, we would have to attempt to identify and qualify substitute manufacturers, which could be time consuming and difficult, and might result in unforeseen manufacturing and operations problems. In such events, our customer relationships, business, financial condition and results of operations would be adversely affected.

Our success depends on the successful development, introduction, commercialization and acceptance of new generations of products and enhancements to existing product lines.

Rapid change and technical innovation characterize the LED chips and components market. Our success depends on the successful development, introduction, commercialization and acceptance of new generations of products and enhancements to existing product lines. We have made and continue to make significant investments in growth initiatives. For example, in the second quarter of fiscal 2016, our new module product successfully moved from sampling stage to mass production and began shipment to customers. We expect to continue our efforts at further research and development of innovative products. We may need to spend more time and money than we expect or have to

Table of Contents

develop and introduce new products or enhancements and, even if we succeed, they may not be sufficiently profitable for us to recover all or a meaningful part of our investment. In addition, our new products or enhancements may need certifications or require qualifications by our customers or potential customers. However, both of the certification and qualification processes are lengthy and uncertain and may negatively impact our sales and marketing efforts to sell or transition our customers to such new products or enhancements. Furthermore, once introduced, new products may adversely impact sales of our older generation products, or make them less desirable or even obsolete, and could adversely impact our revenues and operating results.

Our ability to successfully develop and introduce new products and product enhancements, and the revenues and costs associated with these efforts, are affected by our ability to (i)properly identify customer needs, (ii)prove the feasibility of new products, (iii)price our products competitively and profitably, (iv)accurately predict and control costs and yields associated with manufacturing the products, (v)manufacture and deliver new products timely and in sufficient volume, (vi)assist the customers in qualifying or adopting the new products in a timely manner and (vii)anticipate and compete successfully with competitors. Even if we are successful, if a customer requires certain certifications for or new qualification process of our new products, the time when that customer will actually purchase our products and we will be able to receive revenue from that customer will be significantly delayed.

We may not be able to effectively develop, maintain and expand our sales and distribution channels, which could negatively affect our ability to expand our sales and business and damage our brand reputation.

As part of our strategy, we market and sell our products through third-party distributors in certain markets such as Taiwan, the United States and China (including Hong Kong). We rely on these distributors to service end-customers, and our failure to maintain strong working relationships with such distributors could have a material adverse impact on our operating results and revenues from such jurisdictions and damage our brand reputation. If we are unable to effectively develop and expand our distribution channels, or do so in a timely manner, to ensure our products are reaching the appropriate customer base, our sales and results of operations may be adversely impacted. In addition, if we successfully develop these channels, we cannot guarantee that customers will accept our products or that we will be able to manufacture and deliver products in the timeline established by our customers. We have attempted to direct our efforts to areas of business where we see the best opportunity for the most profitable sales of our LED products, which includes primarily a focus on the UV LED market segment and placing a greater emphasis on the sale of LED components in selected markets where pricing pressure is significant, and pursuing new market opportunities that leverage our core competencies. We are now focused on developing as an end-to-end LED module solution supplier by providing our customers with high quality, flexible and more complete LED system solution, customer technical support and LED module/system design, as opposed to just providing customers with individual components. Continual introductions of new products and solutions, services, and enhancement of existing products and services, and effective servicing of customers are key to our competitive strategy. We also work to develop relationships with a select number of our customers to develop relationships which would continue to enhance our component product growth and profitability to complement our strategic focus. Our primary business objective is to provide our customers with a convenient, full-service, one-stop shopping solution for their needs by offering customized design services and high-quality products at good value. These strategies may negatively impact our revenues as we may not be able to develop and expand our customer base and distribution channels in a timely manner, among other reasons.

We do not control the activities of our distributors with respect to the marketing and sales of and customer service support for our products. Therefore, the reputation and performance of our distributors and the ability and willingness of our distributors to sell our products, uphold our brand reputation for quality, by providing, for example, high quality service and pre- and post-sales support, and their ability to expand their businesses and their sales channels are essential to the future growth of our business and has a direct and material impact on our sales and profitability in such jurisdictions. Also, as with our individual customers, we do not have long-term purchase commitments from our distributor customers, and they can therefore generally cancel, modify or reduce orders with little or no advance notice to us. As a result, any reductions or delays in, or cancellations of, orders from any of our distributors may have a negative impact on our sales and budgeting process.

In addition, we have entered and may from time to time enter into exclusivity or other restrictions or arrangements of a similar nature as part of our agreements with our distributors. Such restrictions or arrangements may significantly hinder our ability to sell additional products, or enter into agreements with new or existing customers or distributors that plan to sell our products, in certain markets, which may have a material adverse effect on our business, financial condition and results of operations.

Moreover, we may not be able to compete successfully against those of our competitors who have greater financial resources and are able to provide better incentives to distributors, which may result in reduced sales of our products or the loss of our distributors. The loss of any key distributor may force us to seek replacement distributors, and any resulting delay may be disruptive and costly.

We operate in highly competitive markets that are characterized by rapid technological changes and declining average selling prices. Competitive pressures from existing and new companies and/or damage to our brand may harm our business and operating results.

Competition in the markets for LED products is intense, and we expect that competition will continue to increase. Increased competition could result in increased pricing pressure, reduced profit margins, increased sales and marketing expenses, and failure to increase, or the loss of, market share, any of which would likely seriously harm our business, operating results and financial condition. Competitors may reduce

Table of Contents

average selling prices faster than our ability to reduce costs, and competitive pricing pressures may accelerate the rate of decline of our average selling prices. To address increased pricing pressure, we have improved and increased our production yields to reduce the per-unit cost of production for our products. However, such cost savings currently have a limited impact on our gross profit, as we have suffered from the underutilization of manufacturing capacity and must absorb a high level of fixed costs, such as depreciation.

We compete with many LED chip manufacturers and LED packaging manufacturers. With respect to our LED chips and LED components, we primarily compete with Cree, SVC, Everlight, LiteOn, LED Engin, Nichia, Philips (Lumileds), Osram-OS GmbH and Edison. We have a number of competitors that compete directly with us and are much larger than us, including, among others, Cree, Nichia, Philips (Lumileds) and Osram-OS GmbH. Several substantially larger companies, such as Philips (Lumileds) and Osram-OS GmbH, compete against us with a relatively small segment of their overall business. In addition, several large and well-capitalized semiconductor companies, such as Samsung and LG Innotek, have entered into the LED chip and UV market. These potential competitors have extensive experience in developing semiconductor chips, which is similar to the manufacturing process for LED chips and LED packaging. We are also aware of a number of well-funded private companies that are developing competing products. We will also compete with numerous smaller companies entering the market, some of whom may receive significant government incentives and subsidies pursuant to government programs designed to encourage the use of LED lighting and to establish LED-sector companies. For example, the Chinese government subsidizes equipment costs, which enables manufacturers in China to remain price competitive and make it very difficult for foreign companies to compete.

In the lighting market, we face competition from fixtures and bulbs manufactured and marketed by other LED lighting fixture companies and from lighting products incorporating incandescent, fluorescent, halogen, ceramic metal halide or other lighting technology. In addition to lighting companies such as Cree, Philips (Lumileds) and Osram-OS GmbH, which are substantially larger and more established than us, we also compete with numerous smaller companies that have traditionally been in the lighting industry or recently entered into the LED lighting market.

Our existing and potential competitors may have a number of significant advantages over us, including greater financial, technical, managerial, marketing, distribution and other resources, more long-standing and established relationships with our existing and potential customers, greater name recognition, larger customer bases and greater government incentives and support. In addition, some of our competitors have been in operation much longer than we have and therefore may have more long-standing and established relationships with our current and potential customers.

We compete primarily on the basis of our products’ performance, price, quality, and reliability and on our ability to customize products to meet customer needs. However, our competitors may be able to develop more competitive products, respond more quickly to new or emerging technologies, offer comparable products at more competitive prices or bring new products to the market earlier. Any failure to respond to increased competition in a timely or cost-effective manner could have a material adverse effect on our business, financial condition, results of operations and prospects. Furthermore, intellectual property claims against us, including pending claims and litigation, regardless of the outcome, could be used by our competitors to damage our brand reputation and our relationships with existing and potential customers.

We derive our revenues mainly from the sales of our LED components. Our inability to grow our revenues generated from the sales of LED components would have a negative impact on our financial condition and results of operation.

LED components are the core products from which we derive our revenues. Revenues attributable to the sales of our LED components represented 73% and 76% of our revenues for the years ended August 31, 2017 and 2016, respectively. Although revenues attributable to the sale of LED lighting products accounted for more than 5% of our revenues for both the years ended August 31, 2017 and 2016, we expect to continue to generate our revenues mainly from the sales of LED components for the foreseeable future. As such, the continued market acceptance of our LED components is critical to our continued success. Our inability to grow our revenues generated from the sales of LED components would have a negative impact on our business, financial condition and results of operations.

The market for LEDs has historically been, and we expect will continue to be, highly volatile, which could harm our business and result in significant fluctuations in the market price of our common stock.

Fluctuations in supply and demand for LEDs pose serious risks to our prospects, business, financial condition and results of operations. Our industry, akin to the semiconductor industry, is highly cyclical and characterized by rapid technological change, rapid product obsolescence, declining average selling prices and wide fluctuations in supply and demand. Our industry's cyclicality results from a complex set of factors, including, but not limited to:

- fluctuations in demand for end-products that incorporate LED chips and LED components;
- ongoing reductions in the number of LED chips and LED components required per application due to performance improvements; and
- fluctuations in the unutilized manufacturing capacity available to produce LED chips and LED components.

Table of Contents

If market demand increases and we are not able to increase our capacity or if we experience delays or unforeseen costs in increasing our capacity levels, we may not be able to achieve our financial targets. Alternatively, as market demand decreases or as market supply surpasses demand, we may not be able to reduce manufacturing expenses or overhead costs proportionately. If an increase in supply outpaces the increase in market demand, or if demand decreases, the resulting oversupply could adversely impact our sales and result in the underutilization of manufacturing capacity, high inventory levels, changes in revenue mix and rapid price erosion, which would lower our margins and adversely impact our financial results. For example, over the past few years, we recorded significant excess capacity charges as we suffered from underutilization of our manufacturing capacity as a result of a decrease in customer demand, and significant write-downs of inventories as a result of a decline in their average selling prices. We may experience similar problems in the future, and we cannot predict when they may occur or the severity of such difficulties and the impact on our margins and operating results.

Our restructuring plan and ongoing cost and capital expenditure reduction efforts may not be effective, might have unintended consequences, and could negatively impact our business.

We have implemented certain actions to accelerate operating cost reductions and improve operational efficiencies in response to changes in the economic environment, our industry and demand. In connection with the implementation of our cost and capital expenditure reduction programs, we developed a strategic plan to address areas of business where we see the best opportunity for the most profitable sales of our LED products, which includes primarily a focus on the UV LED market segment and placing a greater emphasis on the sale of LED components in selected markets where pricing pressure is less significant, and pursuing new market opportunities that leverage our core competencies. We continue to monitor prices and, consistent with our existing contractual commitments, may decrease our activity level and capital expenditures further. This plan reflects our strategy of controlling capital costs and maintaining financial flexibility. We also disposed of a certain level of our idle equipment to reduce the excess capacity charges that we have suffered for a few years. In addition, to provide sufficient liquidity to meet our obligations as they become due for a reasonable period of time, we reduced our capital expenditures as appropriate. The cost reduction plan is further enhanced through the fabless business model in which we implemented certain workforce reductions and have sold certain patents that we were no longer actively developing and are exploring the opportunities to consign or sell certain equipment related to the manufacturing of vertical LED chips to our ODM partner or others, in order to reduce the idle capacity charges, minimize our research and development activities associated with chips manufacturing operation.

Despite our planning, some cost-cutting and capital expenditure reduction measures could have unexpected negative consequences. As part of our ongoing cost reduction efforts, we may reduce our work force further and experience additional attrition, which may expose us to legal claims against us and loss of necessary human resources. If we face costly employee or contract termination claims, our operations and prospects could be harmed. Furthermore, capital expenditure reduction could adversely impact our future sales. In addition, the consignment negotiation has not materialized, which indicated that the carrying amount of the equipment was not recoverable at the time we performed the impairment assessment. As a result, significant impairment charges for our equipment were recognized during fiscal 2016. While our cost and capital expenditure reduction efforts reduced, or are expected to reduce, our operating costs as well as capital expenditure, we cannot be certain that all efforts will be successful or that we will not be required to implement additional actions to structure our business to operate in a cost-effective manner in the future. Currently, both our ODM partner and SemiLEDs are required to make significant commitments of resources to the extensive qualification process with chips before the ODM partner is able to ODM vertical chips for us using our vertical technology. However, qualifications of the numerous products have caused and could continue to cause delays sufficient to have a material adverse effect on our operating results.

Our operating results may fluctuate from quarter to quarter, which could make our future performance difficult to predict and could cause our operating results for a particular period to fall below expectations, resulting in a severe decline in the price of our common stock.

Our quarterly operating results are difficult to predict and may fluctuate significantly in the future. We have experienced seasonal and quarterly fluctuations in the past. As such, our past quarterly operating results may not be good indicators of future performance.

The following factors could cause our operating results to fluctuate:

- our ability to retain existing customers, attract new customers and successfully enter new geographic markets;
- changes in supply and demand and other competitive market conditions, including pricing actions by our competitors and our customers' competitors;
- timing of orders from and shipments to major customers and end-customers, including as part of LED project-based orders, and our ability to forecast demand and manage lead times for the manufacturing of our products; and
- seasonal fluctuations in our customers' purchasing patterns.

For these or other reasons, the results of any prior quarterly or annual periods should not be relied upon as indications of our future performance, and our actual revenue and operating results in future quarters may fall short of the expectations of investors and financial analysts, which could have a severe adverse effect on the trading price of our common stock.

Table of Contents

If we are unable to implement our product innovation strategy effectively, our business and financial results could be materially and adversely affected.

As part of our growth strategy, we plan to continue to be innovative in product design, to deliver new products and improve our manufacturing efficiencies. In particular, as the LED industry develops and technical specifications and market standards change, we must continue to innovate and develop competitive products that are accepted by the marketplace. Our existing or potential customers could develop, or acquire companies that develop, products or technologies that may render our products or technologies obsolete or noncompetitive. Our future success depends on our ability to develop and introduce new, technologically advanced and lower cost products, such as high quality, flexible and more complete LED system solution. If we are unable to achieve technological breakthroughs, introduce new products that are commercially viable and meet rapidly evolving customer requirements, and keep pace with evolving technological standards and market development, we may experience reduced market share and our ability to compete may be adversely impacted. If we are unable to execute our product innovation strategy effectively, we may not be able to take advantage of market opportunities as they arise, execute our business plan or respond to competition.

We may be exposed to intellectual property infringement or misappropriation claims by third parties, which could adversely affect our financial condition and results of operations.

Trademark, patent, copyright and other intellectual property rights are critical to our business and the business of our competitors. Our industry is characterized by frequent intellectual property litigation involving patents, trade secrets, copyrights, and mask designs among others. Competitors of ours and other third parties have in the past and will likely from time to time in the future allege that our products infringe on their intellectual property rights.

Litigation to determine the validity and scope of any claim against us for infringement, misappropriation, misuse or other violation of third-party intellectual property rights can be highly uncertain because of the complex scientific, legal and factual questions and analyses involved. Defending against any intellectual property infringement claims would likely result in costly litigation, diversion of the attention and efforts of our technical and management personnel and ultimately may lead to our not being able to manufacture, use or sell products found to be infringing. As a result of any such dispute, we may be required to develop non-infringing technology, pay substantial damages, enter into royalty or licensing agreements to use third-party technology, cease selling certain products, adjust our marketing and advertising activities or take other actions to resolve the claims. These actions, if required, may be costly or unavailable on terms acceptable to us. If we are unable to obtain sufficient rights or develop non-infringing intellectual property or otherwise alter our business practices on a timely basis, our business and competitive position may be adversely affected. For example, although we and Cree executed a settlement agreement providing for dismissal of our amended complaints against each other without prejudice, we agreed to the entry of a permanent injunction that was effective October 1, 2012 that precludes us from (and/or from assisting others in) making, using, importing, selling and/or offering to sell in the United States certain accused products and/or any device that includes such an accused product after that date and to payment of a settlement fee for past damages.

The intellectual property rights related to packaging LEDs with phosphors to make white light LED components are particularly complex and characterized by aggressive enforcement of those rights. Many of our competitors and other third parties hold patents or licenses or cross-licenses that relate to phosphors and the use of phosphors in LED packages to make white light LED components. We have sought to minimize the risk that one of our competitors or another third party will assert a claim related to our packaged LED components by marketing these products only in certain countries in which we believe enforcement of intellectual property rights has historically been more limited. We cannot assure you that our belief with respect to the enforcement of rights within those markets is accurate. In addition, if the products we sell in a particular country are subsequently shipped or resold to another country, the intellectual property laws of the country of final destination may also apply to our products. Further, we may be subject to claims if our packaging customers for our LED chips lack sufficient intellectual property rights with respect to their packaging process and related packaging materials. We cannot assure you that our competitors or others will not claim that our LED chips or our LED components infringe their intellectual property rights or that, if such claims are made, we will be able to successfully dispute such claims.

Intellectual property claims against us, or our customers, including our distributor customers, could subject us to significant costs and materially damage our business and reputation.

From time to time, third parties may assert infringement claims against us, or our customers with respect to our products, or our customers' products that incorporate our technologies or products, and any such legal action or the threat of legal action against us, or our customers, could impair such customers' continued demand for our products. For example, in 2008, Nichia filed a lawsuit in Japan against a Japanese subsidiary of Seoul Semiconductor Co., Ltd., or Seoul Semiconductor, which is one of our customers, and another lawsuit in Korea against Seoul Semiconductor. In those two lawsuits, Nichia asserted that our LED chips infringed two patents in Japan and one in Korea. While we were not named as a defendant in either of those lawsuits, we intervened as independent or supplementary parties. Although the Japanese lawsuit was settled, it is still possible for Nichia to file a new lawsuit on the two patents originally at issue in the action in Japan. In addition, although the Korean district court found the patent at issue to be invalid, Nichia's subsequent appeal and Seoul Semiconductor's related

12

Table of Contents

invalidation action were both withdrawn after the parties entered into a cross-licensing agreement. As such, the invalidity finding by the district court was vacated.

Furthermore, we agree to defend and indemnify our customers in the event that they are sued by third parties for intellectual property infringement claims involving the sale or use of our products. There can be no assurance that we will be successful in defending these claims. Our indemnification obligations could increase the cost to us of an adverse ruling in any such action.

If LEDs fail to achieve widespread adoption in the general lighting market, or if alternative technologies gain market acceptance, our prospects will be materially and adversely impacted and we may be unable to achieve and maintain our profitability.

A significant portion of our LED chips and LED components are sold for use in LED general lighting applications and our lighting products are also oriented to this market. Our financial condition, results of operations and prospects substantially depend on increased market acceptance of LEDs in general lighting globally, and in particular in Asia. Although LED lighting has grown rapidly in recent years, adoption of LEDs for general lighting has only recently begun, is still limited and faces significant challenges. In addition, the demand for medium power multiple LEDs chips increased for general lighting applications, instead of higher power single chip, which is the specialty of SemiLEDs.

If LED lighting does not achieve widespread acceptance and adoption, or if demand for LED products does not grow as we anticipate, our revenues may decline and our prospects for growth and profitability will be limited. Moreover, if existing sources of light other than LED devices, such as organic light emitting diodes (OLEDs), achieve adoption, or if new sources of light are developed, our current products and technologies could become less competitive or obsolete.

Potential customers for LED general lighting systems may not adopt LED lighting as an alternative to traditional lighting technology because of LEDs' higher upfront cost. In addition, manufacturers of general lighting systems may have substantial investments and know-how related to their existing lighting technologies, such as traditional incandescent, fluorescent, halogen and high intensity discharge, or HID, lighting devices, and may perceive risks relating to the complexity, reliability, quality, usefulness and cost-effectiveness of LED products. Even if LED lighting continues to achieve performance improvements and cost reductions, limited customer awareness of the benefits of LEDs, lack of widely accepted standards governing LED lighting and customer unwillingness to adopt LEDs in favor of entrenched solutions could significantly limit the demand for LED products. Additional factors that may limit the adoption of LEDs for general lighting include, among others:

- a significant reduction in or discontinuation of government regulations and economic incentives to promote the development of the LED industry or government regulations that discourage the use of some traditional lighting technologies;
- changes in economic and market conditions that affect the viability of some traditional lighting technologies, for example declining energy prices that favor existing lighting technologies; and
- capital expenditures for new and replacement lighting systems by end-users of LED products, which may decline during economic downturns.

Our gross margins could fluctuate as a result of changes in our product mix, decreases in the average selling prices of our products, underutilization of our manufacturing capacity, and other factors, which may adversely impact our operating results.

Our gross margins have fluctuated and may continue to fluctuate from period to period as a result of the mix of products that we sell and the utilization of our manufacturing capacity in any given period, among other things. For example, as a strategic plan, we placed greater emphasis on the sales of LED components rather than the sales of LED chips where we have been forced to cut prices on older inventory. The sales of our UV LED embedded components product have successfully improved our gross margin, operating results and cash flows in fiscal 2017. We intend to continue to pursue opportunities for profitable growth in areas of business where we see the best opportunity for our UV market, focus on product enhancement and developing our UV LED into many other applications or devices. However, as we expand and diversify our product offerings and with varying average selling prices, or execute new business initiatives, a change in the mix of products that we sell in any given period may increase volatility in our revenues and gross margin from period to period.

Increased competition and the adoption of alternatives to our products, more complex engineering requirements, lower demand, over-capacity in the market and other factors has led to price erosion and, as a result, lower product margins and lower revenues. For example, some of our competitors have in the past reduced their average selling prices, and the resulting competitive pricing pressures have caused us to similarly reduce our prices, accelerating the decline in the gross margin of our products. We anticipate our competitors will continue to implement such competitive strategies from time to time in the future. Our introduction of new LED component products, such as the LED components that incorporate EV or UV LED chips may further reduce the selling prices of our older generation products or render them obsolete.

Table of Contents

We rely on a limited number of key suppliers for certain key raw materials and equipment. The loss of key suppliers may have a material adverse effect on our business.

There are a limited number of companies which supply certain of the specialized raw materials that are important to the manufacture of our products as well as a very limited number of manufacturers of equipment that are critical to our operations. We generally enter into spot purchase orders with our suppliers and do not have long-term or guaranteed supply arrangements with any of them. For example, we purchase Red or IR LED chips, the key material used in the manufacture of our LED components, from a limited number of suppliers. A major shortage of these key raw materials would impair our ability to meet our production needs resulting in increased costs.

We also purchase gases, photo chemicals and other materials from various suppliers on the spot market. Although supply constraints do not currently have an impact on our ability to procure supply, supply constraints have occurred in the past and may occur again from time to time in the future. Additionally, we use metals such as copper alloy and other commodities in our manufacturing process. The price volatility of such materials may make our procurement planning challenging. If the prices of materials increase it may adversely affect our operating margins. Although these materials are generally available and are not considered to be specialty chemicals, our inability to procure such materials in volumes and at commercially reasonable prices could result in a material adverse effect on our business, financial condition and results of operations.

If any of our key raw material suppliers fails to meet our needs on time or at all, we may not be able to procure replacement supplies from other sources on a timely basis or on commercially reasonable terms and our production may be delayed or interrupted, which could impair our ability to meet our customers' needs and damage our customer relationships.

Disclosure requirements under the Dodd-Frank Act relating to "conflict minerals" could increase our costs and limit the supply of certain metals used in our products and affect our reputation with customers and shareholders.

As required under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, as amended, or the Dodd-Frank Act, in August 2012 the SEC promulgated final rules regarding annual disclosures by public companies of their use of certain minerals and metals, known as "conflict minerals," which are mined from the Democratic Republic of the Congo, or the DRC, and adjoining countries, and their efforts in to prevent the sourcing of such conflict minerals from these countries. These conflict minerals are commonly referred to as "3TG" and include tin, tantalum, tungsten, and gold. These rules require us to ascertain and disclose the origin of some of the raw materials that we use, including gold, annually no later than May 31 of each year. We expect to incur costs associated with complying with these disclosure requirements, including due diligence to determine the sources of conflict minerals used in our products and other potential changes to our products, processes, or sources of supply as a consequence of such due diligence activities. The implementation of these rules and our compliance procedures could adversely affect the sourcing, supply, and pricing of materials used in our products. As there may be only a limited number of suppliers offering "conflict free" conflict minerals, we cannot be sure that we will be able to obtain sufficient quantities of conflict minerals from such suppliers or at competitive prices. Also, our reputation with our customers, shareholders and other stakeholders could be damaged if we determine that certain of our products contain minerals not determined to be conflict free or if we are unable to sufficiently verify the origins for all conflict minerals used in our products through the procedures we may implement. If we cannot guarantee that all of our products exclude conflict minerals sourced from the DRC or adjoining countries, certain of our customers may discontinue, or materially reduce, purchases of our products, which could result in a material adverse effect on our results of operations and financial condition may be adversely affected.

We have a limited operating history which makes it difficult for you to evaluate our business, financial condition, operating results and prospects and which impairs our ability to accurately forecast our future performance.

We were incorporated in January 2005 and our first sales of LED chips occurred in November 2005. In the past, we have experienced revenue declines and incurred significant net losses. For the years ended August 31, 2017 and 2016, we incurred significant net losses attributable to SemiLEDs stockholders of $4.1 million and $21.3 million, respectively. Our limited operating history, combined with the rapidly evolving nature of the LED industry in which we compete, may not provide an adequate basis for you to evaluate our operating and financial results and business prospects. In addition, we only have limited insight into emerging trends that may adversely affect our business, prospects and our operating results. As such, our limited operating history may impair our ability to accurately forecast our future performance.

We may not be able to effectively expand our production capacity or upgrade our production facilities or do so in a timely or cost-effective manner, which could prevent us from growing our sales, margins and market share.

While we intend to focus on managing our costs and expenses in the short term, over the long term we expect to be required to invest substantially if we are to grow. This will mean having to continually expand our production capacity or upgrade our production facilities as we deem appropriate under future market conditions and future customer demand. Such investment could take time to become fully operational, and could otherwise increase our costs, and we may not be able to execute quickly to take advantage of market opportunities as they arise.

Table of Contents

Upgrading or expanding existing facilities could result in manufacturing problems that may reduce our yields and utilization rates below our target levels. For example, we have experienced difficulties in the past in achieving acceptable yields when we moved our manufacturing facilities to a new location and when we introduced new products or new manufacturing processes, which has adversely affected our operating results.

Upgrading or expanding production facilities or capacity requires a significant amount of fixed cost since it requires us to add and purchase manufacturing lines, equipment and additional raw materials and other supplies. If we are not able to recoup these costs through increased sales and profits, our business, financial condition and results of operations could be materially and adversely affected.

We may have difficulty managing our future growth and the associated changes to our operations, which could materially and adversely affect our business and operating results.

We had experienced a period of significant growth prior to the recent changes to the market and our business that resulted in net losses for the past few years. However, we intend to continue to upgrade our business and operations in Taiwan, as appropriate, including a focus on the introduction of new products and improving our production yields, with a view to positioning us to capture future growth of the market and our business.

Our future expansion plans may place a significant strain on our managerial, administrative, operational, technological and financial resources. In order to manage our growth, we must continue to hire, recruit and manage our workforce effectively as well as implement adequate controls and reporting systems and procedures in a timely manner. If we fail to manage our growth, we may encounter, among other things, delays in production and operational difficulties. Moreover, any additional capital investments would increase our overall costs.

In order to effectively support our growth, we must also continue to:

- maintain adequate manufacturing facilities and equipment;
- secure and maintain sufficient and stable supplies of raw material;
- continue to expand our research and development, sales and marketing, technological and distribution capabilities;
- enhance the skills and capabilities of our key personnel and hire additional experienced senior level managers and technical personnel; and
- attract and retain qualified employees.

If we are unable to effectively manage our growth and the associated changes to our operations, our financial results, financial condition, business or prospects could be harmed significantly.

Sales of our products are concentrated in a few select markets. Adverse developments in these markets could have a material and disproportionate impact on us.

Our revenues are highly concentrated in a few select markets, including Taiwan, the United States and China (including Hong Kong). Net revenues generated from sales to customers in Taiwan, the United States and China, in the aggregate, accounted for 71% and 79% of the Company’s net revenues for the years ended August 31, 2017 and 2016, respectively. As a result of the concentration of our revenues in these markets, economic downturns, changes in governmental policies and increased competition in these markets could have a material and disproportionate impact on our revenues, operating results, business and prospects. For example, the aggressive support by the Chinese government for the LED industry through significant government incentives and subsidies to encourage the use of LED lighting and to establish the LED-sector companies has resulted in production overcapacity in the market and intense competition. Any unfavorable economic or market conditions in such jurisdictions could have a negative impact on our sales and profitability.

Variations in our production yields and limitations in the amount of process improvements we can implement could impact our ability to reduce costs and could cause our margins to decline and our operating results could suffer.

Our products are manufactured using technologies that are highly complex. The number of saleable products, or yield, from our production processes may fluctuate as a result of many factors, including but not limited to the following:

- variability in our process repeatability and control;
- contamination of the manufacturing environment;
- equipment failure, variations in the manufacturing process, or power outages;
- lack of consistency and adequate quality and quantity of components and raw materials;

Table of Contents

- losses from broken wafers, inventory damage or human errors;
- defects in packaging either within our facilities or at our subcontractors; and
- any transitions or changes in our production process, planned or unplanned.

Introduction of new products and manufacturing processes are often characterized by lower yields in the initial commercialization stage. LED chip and component manufacturing is complicated and consists of many layers of complex materials that must interact with each other. In addition, when we introduce new products and processes we often use new chemical solutions and chemical compounds with which we have less experience. We must analyze how the various solutions, compounds and layers of materials interact with each other and perform as parts of the LED chip structure. It takes time for us to analyze the data from our initial manufacturing runs and optimize our processes, and over time we generally achieve higher yield rates as we gain more experience with the product or processes. We have continuously improved and increased our production yields to reduce the per-unit cost of production for our new LED components that incorporate EV or UV LED chips; however, such cost savings currently have limited impact on our gross profit, as we currently suffer from the underutilization of manufacturing capacity and must absorb a high level of fixed costs, such as depreciation. In the past, we have experienced difficulties in achieving acceptable yields when introducing new products or new manufacturing processes, which has adversely affected our operating results. We may experience similar problems in the future, and we cannot predict when they may occur or the severity of such difficulties and the impact on our business.

In some instances, we may offer products for future delivery at prices based on planned yield improvements or increased cost efficiencies from other production advances. Failure to achieve these planned improvements or advances could significantly affect our margins and operating results.

We may face challenges further expanding our LED components business. In addition, our strategy of marketing our LED components in jurisdictions with limited intellectual property enforcement regimes may limit the markets where we can sell our LED components and may subject our intellectual property rights to infringement.

We face challenges in further expanding our LED components business, which has been our core product now and onward, because it involves processes and technologies that are significantly different from our manufacturing processes for LED chips. For example, we are developing advanced-level LED component manufacturing techniques, such as processes that allow us to manufacture wafer-level packaging. If we are not able to further develop our LED components business or if competitors create or adopt more advanced packaging technologies than ours, then our business, financial condition and results of operations could be materially and adversely affected.

Our distribution strategy limits the sales of our LED components as we are selling only in countries that may not necessarily have the highest demand or market potential. The intellectual property rights related to LED components are particularly complex and characterized by aggressive enforcement of those rights. To minimize the likelihood that one of our competitors or another third party will assert a claim related to our LED components, we have sought to market these products only in countries in which we believe enforcement of intellectual property rights has historically been more limited as identified below and to ensure the new line of LED products are not subject to any effective injunction in the United States, because we believe that it is important for us to consciously manage our exposure to litigation. Any such litigation, whether with or without merit, could divert our management, financial and other resources away from our business and thereby have a negative impact on our continued development and growth. We do not currently sell our LED components in all countries that meet, what we believe to be, an acceptable litigation risk profile. We review profiles of different countries and may determine from time to time that we should sell our products in one or more additional countries that meet our litigation risk profile for sale of our LED components. However, we may not be able to identify additional countries that we find to be suitable markets for these products. We have considered the potential loss of revenues and income that we may suffer as a result of our strategy to sell only in certain select countries and have concluded that, on balance, the potential loss of such revenues and income is not outweighed by the potential litigation risks. Also, there can be no guarantee that, by selling our LED components in these countries, we have not exposed our intellectual property rights, including our patents, to infringement by others. With respect to any potential infringement of our patents and other intellectual property rights by others in countries where we currently sell our LED components, we have considered the potential loss of revenues and income that we may suffer associated with such sales and have made a business judgment that the benefits outweigh any potential loss. In addition, if the countries in which we currently sell our LED components increase their enforcement of intellectual property rights, the risk of litigation would materially increase and our ability to continue to sell our LED components in these markets may be materially and adversely affected. Sales of our LED components and our other products may also be limited in the event that they are subsequently shipped or otherwise resold in a country and a claim is brought against us or our customer pursuant to the intellectual property laws of the country of final destination.

As we continue to operate in the lighting fixtures market, we may face additional competition and our existing customers may reduce orders.

As we continue to operate in the lighting fixtures market and seek to increase our sales of lighting products in the future, we may face competition from fixtures and bulbs manufactured and marketed by other LED lighting fixture companies and from lighting products incorporating incandescent, fluorescent, halogen, ceramic metal halide or other lighting technology. In addition, many of our existing customers who purchase our LED chips and LED components develop and manufacture lighting fixtures using those chips and components. As

Table of Contents

we continue to operate in that market, our customers may respond by reducing or discontinuing their orders for our products. This could prevent us from growing or even maintaining our revenues from the sale of LED chips and LED components, which would negatively impact our business, financial condition and results of operations.

As with our LED components, to minimize the likelihood that one of our lighting fixture competitors or another third party will assert an intellectual property right related to our lighting fixtures, we have sought to market these products only in countries in which we believe enforcement of intellectual property rights has been more limited. Our sales of lighting products to customers in the United States decreased significantly in recent years. This distribution strategy may limit our sales to countries that do not have the highest demand or market potential, and raise similar issues and risks to those raised with respect to our use of this strategy in connection with marketing our LED components.

We derive a significant portion of our revenues from a limited number of customers, including distributor customers, and generally do not enter into long-term customer contracts. The loss of, or a significant reduction in purchases by, one or more of these customers, or the failure by one of these customers to pay, could adversely affect our operating results and financial condition.

We have historically derived a significant portion of our revenues from a limited number of customers, including distributor customers. For the years ended August 31, 2017 and 2016, our top ten customers collectively accounted for 69% and 60%, respectively, of our revenues. Some of our largest customers and what we produce/have produced for them have changed from quarter to quarter primarily as a result of the timing of discrete, large project-based purchases and broadening customer base, among other things. For the years ended August 31, 2017 and 2016, sales to our three largest customers, in the aggregate, accounted for 49% and 39% of our revenues, respectively.

The sales cycle from initial contact to confirmed orders with our customers is typically long and unpredictable. We typically enter into individual purchase orders with large customers, which can be altered, reduced or cancelled with little or no notice to us. We do not generally enter into long-term commitment contracts with our customers. As such, these customers may alter their purchasing behavior and reduce or cancel orders with little or no notice to us. Consequently, any one of the following events may cause material fluctuations or declines in our revenues:

- reduction, delay or cancellation of orders from one or more of our major customers;
- loss of one or more of our major customers and our failure to identify additional or replacement customers; and
- failure of any of our major customers to make timely payment for our products.

We rely on certain key personnel. The loss of any of our key personnel, or our failure to attract, assimilate and retain other highly qualified personnel in the future, could harm our business.

Our future success depends on the continued service and performance of our key personnel, including in particular Trung T. Doan, our chief executive officer, and members of our executive team. We do not maintain key man insurance on any of our officers or key employees.

If Mr. Doan or other key personnel were unable or unwilling to continue in their present positions, we may not be able to replace them readily or on terms that are reasonable, if at all. As such, the loss of Mr. Doan or other key personnel, including other key members of our management team and certain of our key marketing, sales, product development or technology personnel, could significantly disrupt our operations and prevent the timely achievement of our development strategies and growth, which would likely have an adverse effect on our financial condition, operating results and prospects. Moreover, we may lose some of our customers if any of our officers or key employees were to join a competitor or forma competing company. The loss of the services of our senior management for any reason could adversely affect our business, operating results and financial condition.

In addition, competition for experienced employees in our industry can be intense, and we may not be successful in recruiting, motivating or retaining sufficiently qualified personnel on terms that are reasonable, or at all. Cyclical volatility in our industry and in our business may aggravate this problem. For example, the challenges we faced in recent years relating to loss of market share and a sustained decrease in the market price of our common stock, among others, could impact our ability to attract and retain employees. When consumer demand for our products is reduced or delayed, we expect lower net revenue and reduced profitability. When our stock price declines, our equity incentive awards may lose retention value. In response to such downturns, we may further implement cost reduction actions, including spending controls, forced holidays and company shutdowns, employee layoffs, shortened work-weeks and involuntary salary reductions. Layoffs during an industry downturn could make it more difficult for us to retain key talent and staff members, or to rehire employees should business improve.

We are highly dependent on our customers’ ability to produce and sell products incorporating our LED products. If our customers are not successful, our operating results could be materially and adversely affected.

Our customers incorporate our LED products into their products. As such, demand for our products is dependent on demand for our customers’ end-products that incorporate our LED products and our customers’ ability to sell these products. The general lighting market has

Table of Contents

only recently begun to develop and adopt standards for fixtures that incorporate LED devices. If the end-customers for our products are unable to manufacture fixtures that meet these standards, our customers' sales, and consequently our sales, will suffer.

With respect to the sale of our LED components, a substantial portion of which is used in specialty industrial applications, such as UV curing of polymers, LED light therapy in medical/cosmetic applications, counterfeit detection, LED lighting for horticulture applications, and architectural lighting. A majority of our sales are to such end-customers in selected markets. Sales by end-customers of our products are generally dependent on their ability to develop high quality and highly efficient lighting products and require complex designs and processes, including thermal design, optical design and power conversion. We are making a transition to develop as an end-to-end LED module solution supplier by providing our customers with high quality, flexible and more complete LED system solution, customer technical support and LED module/system design, as opposed to just providing customers with individual components. Our customer's timely and successful product development, the success of our customers' new product introductions and market acceptance could be materially and adversely affected our operating results.

If our intellectual property, including our proprietary technologies and trade secrets, are not adequately protected to prevent misuse or misappropriation by our competitors, the value of our brand and other intangible assets may be diminished, and our business may be materially and adversely affected. In addition, the sale of certain patents increases our business risk.

Our future success and competitive position depends in part on our ability to protect our intellectual property, including proprietary technologies and trade secrets. In particular, we have developed advanced capabilities and proprietary know-how in sapphire reclamation, gallium nitride, or GaN, epitaxial growth, copper alloy technology, nanoscale surface engineering and vertical LED structure technology that are critical to our business. We rely, and expect to continue to rely, on a combination of confidentiality and license agreements with our employees, licensees, partner and third parties with whom we have relationships, and trademark, copyright, patent and trade secret protection laws, to protect our intellectual property, including our proprietary technologies and trade secrets.

There can be no assurance that the steps we have taken or plan to take in the future are adequate to protect our intellectual property, including our proprietary technologies and trade secrets. We expect to continue to seek patent and trademark protection for our technologies and know-how. However, we will only be able to protect such technologies and know-how from unauthorized use by third parties to the extent that valid, protectable and enforceable rights cover them. We cannot be certain that our patent and trademark applications will lead to patents being issued and registered trademarks being granted in a timely manner, or at all. Even if we are successful in obtaining such rights, the intellectual property laws of other countries in which our products are sold or may in the future be sold may not protect our products and intellectual property rights to the same extent as the laws of the United States. For example, China currently is thought to afford less protection to intellectual property rights generally than some other jurisdictions. As such, the lack of strong patent and other intellectual property protection in China may significantly increase our vulnerability as regards unauthorized disclosure or use of our intellectual property and undermine our competitive position. The legal standards relating to the validity, enforceability and scope of protection of intellectual property rights in LED-related industries are uncertain and still evolving, both in the United States and in other countries. Moreover, the contractual agreements that we enter into with employees, licensees and third parties to protect our intellectual property and proprietary rights afford only limited protection and may not been forceable.

We also expect that the more successful we are, the more likely it will be that competitors will try to develop or patent similar or superior technologies, products and services. In the event that our competitors or others are able to obtain knowledge of our know-how, trade secrets and technologies through independent development, our failure to protect such know-how, trade secrets and technologies and/or our other intellectual property and proprietary rights may undermine our competitive position. In addition, third parties may knowingly or unknowingly infringe our trademarks and other intellectual property rights, and litigation may be necessary to protect and enforce our intellectual property rights or determine the validity and scope of our proprietary rights. Any such litigation could be very costly and could divert management attention and resources away from our business, and the outcome of such litigation may not be in our favor. If the protection of our intellectual property, including our proprietary technologies and trade secrets, is inadequate to prevent use or appropriation by third parties, the value of our brand and other intangible assets may be diminished and competitors may be able to more effectively mimic our products and methods of operation. Any of these events may have a material adverse effect on our business, financial condition, reputation and competitive position.

We have also sold certain patents, generally for technology that we are no longer actively developing. While we plan to continue to monetize our patent portfolio through sales of non-core patents, we may not be able to realize adequate interest or prices for those patents. Accordingly, we cannot provide assurance that we will be able to generate revenue from these sales. In addition, although we seek to be strategic in our decisions to sell patents, we might incur reputational harm if a purchaser of our patents sues one of our customers for infringement of the purchased patent, and we might later decide to enter a space that requires the use of one or more of the patents we sold.

Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information.

To protect a substantial amount of our technologies, we have chosen to rely primarily on trade secrets law rather than seeking protection through patents. Trade secrets are inherently difficult to protect. In order to protect our intellectual property rights, including our proprietary technologies and trade secrets, we rely in part on security measures, as well as confidentiality agreements with our employees, licensees and other third parties. These measures and agreements may not effectively prevent disclosure of confidential information, including trade secrets,

Table of Contents

and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. While we believe we use reasonable efforts to protect our trade secrets, we could potentially lose future trade secret protection if any unintentional or willful disclosure by our directors, employees, consultants or contractors of such information occurs, including disclosure by employees during or after the termination of their employment with us, in particular if they were to join one of our competitors. Laws regarding trade secret rights in certain markets in which we operate may afford little or no protection. The loss of trade secret protection could make it easier for third parties to compete with our products by copying functionality. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our business, revenue, reputation and competitive position.

The reduction or elimination of government investment in LED lighting or the elimination of, or changes in, policies in certain countries that encourage the use of LEDs over some traditional lighting technologies could cause demand for our products to decline, which could materially and adversely affect our revenues, profits and margins.

We believe the near-term growth of the LED market will be driven in part by government policies in certain countries that either directly promote the use of LEDs or discourage the use of some traditional lighting technologies. Today, the upfront cost of LED lighting exceeds the upfront cost for some traditional lighting technologies that provide similar lumen output in many applications. However, for environmental reasons, among others, some governments around the world have used policy initiatives to accelerate the development and adoption of LED lighting and other non-traditional lighting technologies that are seen as more environmentally-friendly compared to some traditional lighting technologies. Reductions in, or eliminations of, government investment and favorable energy policies could result in decreased demand for our products and decrease our revenues, profits, margins and prospects.

We may be exposed to litigation, which could adversely affect our financial condition and results of operations.

In the ordinary course of our business, we may be exposed to general commercial claims related to the conduct of our business, class action lawsuits, employment claims and other litigation claims. For example, in July 2013, we, and certain of our current and former officers and directors, were the subjects of a number of purported class action lawsuits and derivative lawsuits. These cases were closed and dismissed without prejudice in February 2014. Any such litigation, whether with or without merit, could result in significant costs. In addition, members of our senior management may be required to divert significant attention and resources to these matters, reducing the time, attention and resources they have available to devote to managing our business. These additional expenses and diversion of attention and resources, along with any reputational issues raised by these lawsuits, may have a material negative impact on our business, financial condition and results of operations.

We are required to assess our internal control over financial reporting on an annual basis and any future adverse findings from such assessment could result in a loss of investor confidence in our financial reports, significant expenses to remediate any internal control deficiencies and ultimately have an adverse effect on our share price.

Section 404 of the Sarbanes-Oxley Act of 2002 requires that we include a management report that assesses the effectiveness of our internal control over financial reporting in our annual report on Form 10-K. Our testing may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses, which we will be required to disclose. Our compliance with Section 404 requires that we incur substantial accounting expenses and expend significant management resources and time on compliance related issues. If we are unable to comply with the requirements of Section 404 in a timely manner, or if we identify deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses, we may be subject to sanctions or investigations by regulatory agencies such as the SEC. In addition, failure to meet the requirements of Section 404 or to disclose any material weakness may cause investors to lose confidence in our financial statements and the trading price of our common stock may decline. Moreover, if we fail to remedy any material weakness, our financial statements may be inaccurate, our ability to report our financial results on a timely and accurate basis may be adversely affected, our access to the capital markets may be restricted, we may be subject to sanctions or investigation by regulatory authorities, including the SEC and The NASDAQ Stock Market, or NASDAQ, and our stated results of operations and reputation may be materially and adversely affected.

We have incurred and continue to incur significant increased costs as a result of operating as a public company, and our management is required to devote substantial time to compliance efforts.

As a public company, we have incurred and continue to incur significant legal, accounting, investor relations and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. The Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as rules subsequently implemented by the SEC and NASDAQ, impose additional requirements on public companies, including enhanced corporate governance practices. For example, the listing requirements for NASDAQ provide that listed companies must satisfy, among other things, certain corporate governance requirements relating to independent directors, audit committees, distribution of annual and interim reports, stockholder meetings, stockholder approvals, solicitation of proxies, conflicts of interest, stockholder voting rights and codes of business conduct. Our management and other personnel devote a substantial amount of time to satisfy these compliance requirements. Moreover, these rules and regulations have increased our legal and financial compliance costs and have made some activities more time consuming and costly.

Table of Contents

Impairment of our goodwill, long-lived assets, cost-method investments could reduce our earnings.

As part of our business strategy, we have and may continue to pursue acquisitions of businesses and assets, strategic alliances and joint ventures. Goodwill is recorded when the purchase price of a business exceeds the fair market value of the tangible and separately measurable intangible net assets. U.S. GAAP requires us to test goodwill on an annual basis or when events or circumstances occur indicating that goodwill might be impaired. Long-lived assets, including property, plant and equipment and intangible assets with finite useful lives, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount might not be recoverable.

In addition, some of our investments are accounted for under the equity method of accounting, which we record our proportionate share of their net income or loss, or using the cost method. However, they must also be tested for impairment. For the investments we account for under the equity method or the cost method, the impairment test considers whether the fair value of the equity investment as a whole, not the underlying net assets, has declined and whether that decline is other than temporary. If we determine that impairment is indicated, we would be required to take an immediate non-cash charge to earnings, which could adversely impact our operating results. During fiscal 2016, we experienced a significant reduction to our earnings as a result of impairment charges on our long-lived assets, and our investments accounted for under the cost method of accounting; see Note 3, "Balance Sheet Components—Property, Plant and Equipment; and—Intangible Assets" and Note 4, "Investments in Unconsolidated Entities," of the Notes to Consolidated Financial Statements in Item 8, Financial Statements and Supplementary Data, of this Annual Report for detailed information.

We may undertake joint ventures, investments, acquisitions, joint projects, and other strategic alliances and such undertakings, as well as our existing joint ventures, may be unsuccessful and may have an adverse effect on our business.

We have grown our business in part through strategic alliances and acquisitions. We continually evaluate and explore strategic opportunities as they arise, including product, technology, business or asset transactions, such as acquisitions or divestitures. Such undertakings may not be successful or may take a substantially longer period than initially expected to become successful, and we may never recover our investments or achieve desired synergies or economies from these undertakings.

This notwithstanding, we may in the future continue to seek to grow our operations in part by entering into joint ventures, undertaking acquisitions or establishing other strategic alliances with third parties in the LED and LED-related industries. These activities involve challenges and risks in negotiation, execution, valuation and integration, and closing of the transactions could be delayed or prevented by regulatory approval requirements, including antitrust review, or other conditions.

Any future agreements that we may enter into also could expose us to new operational, regulatory, market, litigation and geographical risks as well as risks associated with significant capital requirements, the diversion of management and financial resources, unforeseen operating difficulties and expenditures, sharing of proprietary information, loss of control over day-to-day operations, non-performance by a counterparty and potential competition and conflicts of interest. In addition, we may not be successful in finding suitable targets on terms that are favorable to us, or at all. Even if successfully negotiated and closed, expected synergies from a joint venture, acquisition or other strategic alliance may not materialize or may not advance our business strategy, may fall short of expected return-on-investment targets or may not prove successful or effective for our business. We may also encounter difficulty integrating the operations, personnel and financial and operating systems of an acquired business into our current business.

We may need to raise additional debt funding or sell additional equity securities to enter into such joint ventures or make such acquisitions. However, we may not be able to obtain such debt funding or sell equity securities on terms that are favorable to us, or at all. The raising of additional debt funding by us, if required and available, would result in increased debt service obligations and could result in additional operating and financing covenants, or liens on our assets, that would restrict our operations. The sale of additional equity securities, if required and available, could result in dilution to our stockholders.

We are also exposed to liquidity risk in the event of non-performance by the counterparty to the convertible note in the purchase agreement.

Any undetected defects in our products may harm our sales and reputation and adversely affect our manufacturing yields.

The manufacture of LED chips and components is highly complex, requiring precise processes in a highly controlled and sterile environment using specialized equipment. We or our ODM partner manufacture our LED products to meet customer requirements with respect to quality, performance and reliability. Although we utilize quality control procedures at each stage of our manufacturing process, our products may still contain defects that are undetected until after they are shipped or inspected by our customers, or on operation of the device. For example, there could be sub-micron defects that would not be detected by our quality control procedures; such sub-micron defects may increase the current leakage in the device and could negatively affect the product performance over time. Unsatisfactory performance of or defects in our products may cause us to incur additional expenses, including costs in relation to product warranties, cancellation and rescheduling of orders and shipments, and product returns or recalls. Failure to detect and rectify defects in our products before delivery could subject us to product liability claims and harm our credibility and market reputation, which could materially adversely affect our business and results of operations.

Table of Contents

In addition, we do not currently have fully automated manufacturing processes, which could potentially introduce contaminants to the production processes through human error. Defects or other difficulties in the manufacturing process can prevent us and our ODM partner from achieving maximum capacity utilization, which is the actual number of wafers that we are able to produce in relation to our capacity, and also can prevent acceptable yields of quality LED chips from those wafers.

Global economic conditions could negatively impact on our business, financial condition and results of operations.

The global financial crisis that began in late 2007 caused extreme disruption in the financial markets. Although the disruption in the financial markets moderated thereafter, the global financial markets continue to reflect uncertainty about a sustained economic recovery. Uncertainty about global economic conditions could result in slow economic activity, concerns about inflation and energy costs, decreased business and consumer confidence, reduced capital spending and adverse business conditions, as well as diminished liquidity and credit availability in many financial markets. In addition, these economic and business conditions could have led to reduced spending in our target markets and made it difficult for our customers and us to accurately forecast and plan future business activities. Continued weak economic conditions and further adverse trends in general economic conditions, consumer confidence, employment levels, business conditions, interest rates, availability of credit, inflation and taxation have in the past and may again in the future cause consumer spending to decline further, reduce demand for and prices of our products and our customers' products, affect the prices and availability of raw materials, limit our ability to obtain financing for our operations and constrain the ability or willingness of governments to invest in the LED industry or fund public projects using LED lighting products. Furthermore, our customers may be unable to access capital efficiently, or at all, which could adversely affect our financial condition by resulting in product delays, increased defaults in accounts receivables and increased inventory exposures. Any unfavorable economic or market conditions could have a material adverse effect on our business, financial condition and results of operations.

Our operations depend on an adequate and timely supply of electricity and water.

We consume significant amounts of electricity and water in our manufacturing process. We may experience future disruptions or shortages in our electricity or water supply, which could result in a drop in or loss of throughput and product yield or even the loss of an entire production run, depending on the duration of disruption or shortage. Although we maintain generators and other backup sources of electricity, these replacement sources are only capable of providing effective backup supplies for limited periods of time. We do not currently have any alternative sources of water nor do we maintain backup tanks. We cannot assure you that we will not experience disruptions or shortages in our electricity or water supply or that there will be sufficient electricity and water available to us to meet our future requirements. Any material disruption could significantly impact our normal business operations, cause us to incur additional costs and adversely affect our financial condition and results of operations.

Our operations involve the use of hazardous materials and we must comply with environmental laws, which can result in significant costs, and may affect our business and operating results.

Our research and development and manufacturing activities involve the use of hazardous materials, including acids, adhesives and other industrial chemicals. As a result, we are subject to a variety of environmental, health and safety laws and regulations governing the use, storage, handling, transportation, emission, discharge, exposure to, and disposal of such hazardous materials. Compliance with applicable environmental laws and regulations in each of the jurisdictions in which we operate can be costly, and there can be no assurance that violations of these laws will not occur in the future as a result of human error, accident, equipment failure, or other causes. Liability under environmental and health and safety laws can be joint and several, and without regard to fault or negligence. The failure to comply with past, present, or future laws could subject us to increased costs and significant fines and penalties, damages, legal liabilities, suspension of production or operations, alteration of our manufacturing facilities or processes, curtailment of our sales and adverse publicity. Any of these events could harm our business and financial condition.

Furthermore, environmental protection and workplace safety regulations may become more stringent in the future, and although we cannot predict the ultimate impact of any such new laws, they may impose greater compliance costs or result in increased risks or penalties, which could harm our business. Existing and future environmental laws and regulations could also require us to acquire pollution abatement or remediation equipment, modify our product designs or incur other expenses associated with such laws and regulations. As our industry continues to evolve, we may be required to evaluate and use new materials in our manufacturing process that may be subject to regulation under existing or future environmental laws and regulations, and our use of such new materials may be restricted. Any such restriction could require us to alter our manufacturing processes or increase our expenses. If we fail to comply with current and future environmental laws and regulations, whether intentional or inadvertent, we may be required to pay fines and other liabilities to the government or third parties, suspend production or even cease operation.

We have operations and sales in various jurisdictions globally, which may subject us to increasingly complex taxation laws and regulations.

As a multinational organization with operations and sales in various jurisdictions, we may be subject to taxation in such jurisdictions. The various tax laws and regulations are becoming increasingly complex, with the interpretation and application of such laws and regulations becoming more challenging and uncertain. We may be subject to additional taxes, fines and penalties to the extent we are not correct in our

Table of Contents

interpretation and the amount of taxes we declare and pay. In addition, given the continuing global economic slowdown, as well as high government debt levels of many countries, there is an increasing likelihood that the amount of taxes we pay in these jurisdictions could increase substantially. Any such events would have a material impact on our reputation, financial condition and results of our operations.

Taxing authorities could reallocate our taxable income among our subsidiaries, which could increase our consolidated tax liability.

We conduct operations through subsidiaries in various tax jurisdictions pursuant to transfer pricing arrangements between our subsidiaries. If two or more affiliated companies are located in different countries, the tax laws or regulations of each country generally will require that transfer prices be the same as those between unrelated companies dealing at arms' length and that contemporaneous documentation is maintained to support the transfer prices. While we believe that we operate in compliance with applicable transfer pricing laws and intend to continue to do so, our transfer pricing procedures are not binding on applicable tax authorities. If tax authorities in any of these countries were to successfully challenge our transfer prices as not reflecting arms' length transactions, they could require us to adjust our transfer prices and thereby reallocate our income to reflect these revised transfer prices, which would result in a higher tax liability to us. In addition, if the country from which the income is reallocated does not agree with the reallocation, both countries could tax the same income, resulting in double taxation. If tax authorities were to allocate income to a higher tax jurisdiction, subject our income to double taxation or assess interest and penalties, it would increase our consolidated tax liability, which could adversely affect our financial condition, results of operations and cash flows.

Proposed U.S. federal income tax legislation could negatively impact our effective tax rate.

Proposed U.S. tax legislation that could be enacted in the future could substantially impact the tax treatment of our non-U.S. earnings. These proposed changes include limitations on the ability to claim and utilize foreign tax credits and require the deferral of interest expense deductions until non-U.S. earnings are taxed in or repatriated to the United States.

Such proposed legislation, if enacted, could negatively impact the amount of our taxes payable in the United States and our effective tax rate and adversely affect our results of operations and cash flows.

Risks Relating to Our Holding Company Structure

Our ability to receive dividends and other payments from Taiwan SemiLEDs may be restricted by commercial and legal restrictions, which may materially and adversely affect our ability to grow, fund investments, make acquisitions, pay dividends and otherwise fund and conduct our business.

We are a holding company with one material asset, which is our ownership interest in Taiwan SemiLEDs.

Dividends and interest on intercompany loans we receive from our subsidiaries in Taiwan, if any, will be subject to withholding tax under Taiwan law. The ability of our subsidiaries in Taiwan to pay dividends, repay intercompany loans from us or make other distributions to us is restricted by, among other things, the availability of funds, the terms of various credit arrangements entered into by our subsidiaries, as well as statutory and other legal restrictions. In addition, although there are currently no foreign exchange control regulations that restrict the ability of our subsidiaries located in Taiwan to distribute dividends to us, we cannot assure you that the relevant regulations will not be changed and that the ability of our subsidiaries to distribute dividends to us will not be restricted in the future. A Taiwan company is generally not permitted to distribute dividends or to make any other distributions to stockholders for any year in which it did not have either earnings or retained earnings (excluding reserves). In addition, before distributing a dividend to stockholders following the end of a fiscal year, the company must recover any past losses, pay all outstanding taxes and set aside 10% of its annual net income (less prior years' losses and outstanding taxes) as a legal reserve until the accumulated legal reserve equals its paid-in capital, and may set aside a special reserve.

Our ability to operate our holding company in the US is dependent on Taiwan SemiLEDs' ability to repay its obligations to SemiLEDs Corporation.

Our cash position in SemiLEDs Corporation's bank account has declined significantly. SemiLEDs Corporation has substantial intercompany receivables from Taiwan SemiLEDs. However, we are dependent on Taiwan SemiLEDs' ability to raise money through the sale of its building or the sale of a portion of its subsidiary and the restructuring of its chip operation to pay back SemiLEDs Corporation. We entered into an agreement in December 2015 with a strategic partner for the potential sale of our headquarters building located at Miao-Li, Taiwan. The total cash consideration for the sale is $5.2 million, of which the initial installment of $3 million was received on December 14, 2015, $1 million was due on December 31, 2016 and the balance of $1.2 million is due on December 31, 2017. As of August 31, 2017, we haven't received the $1 million due on December 31, 2016. Both parties are in discussions regarding applying the $3 million deposit as partial consideration for the strategic partner to purchase a portion of the equity of one of our subsidiaries and intend to amend the agreement for the sale of the headquarters. However, the investment is subject to the negotiation of a definitive agreement and the approval of the strategic partner's investment committee. We cannot assure you that we will be able to complete the sale of the building or, alternatively, the sale of a portion of one of our subsidiaries.

22

Table of Contents

Our ability to make further investments in Taiwan SemiLEDs may be dependent on regulatory approvals in Taiwan.

Taiwan SemiLEDs depends on us to meet its equity financing requirements. Any capital contribution by us to Taiwan SemiLEDs requires the approval of the relevant Taiwan authorities, such as the Hsinchu Science Park Administration. We may not be able to obtain any such approval in the future in a timely manner, or at all. We cannot assure you that we will be able to complete these government registrations or obtain the government approvals on a timely basis, if at all, with respect to future loans or capital contributions by us to our subsidiaries or any of their respective subsidiaries. If we fail to complete these registrations or obtain the approvals, our ability to capitalize Taiwan SemiLEDs may be negatively affected, which could adversely and materially affect our liquidity and our ability to fund and expand our business.

The rights of stockholders may be limited as we conduct a substantial portion of our operations in Taiwan and a substantial portion of our assets and substantially all of our directors and officers reside outside the United States.

Although we are incorporated in Delaware, a substantial portion of our operations are conducted in Taiwan through Taiwan SemiLEDs and its subsidiaries. As such, a substantial portion of our assets are located in Taiwan. In addition, substantially all of our directors and officers reside outside the United States, and a substantial portion of the assets of those persons are located outside of the United States. Therefore, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States in the event that you believe that your rights have been infringed under applicable securities laws or otherwise. Even if you are successful in bringing an action, the laws of Taiwan may render you unable to enforce a United States judgment against our assets or the assets of our directors and officers.

For judgments obtained in courts outside of Taiwan to be recognized and enforceable in Taiwan without review of the merits, the Taiwan court in which the enforcement is sought must be satisfied that: the foreign court rendering such judgment has jurisdiction over the subject matter in accordance with the Taiwan law; the judgment and the court procedure resulting in the judgment are not contrary to the public order or good morals of Taiwan; the judgment is a final judgment for which the period for appeal has expired or from which no appeal can be taken; if the judgment was rendered by default by the foreign court, the defendant was duly served in the jurisdiction of such court within a reasonable period of time in accordance with the laws and regulations of such jurisdiction, or process was served on the defendant with the Taiwan judicial assistance; and judgment of Taiwan courts is recognized and enforceable in the foreign court rendering the judgment on a reciprocal basis.

Political, Geographical and Economic Risks

Due to the location of our operations, we are vulnerable to natural disasters and other events, which may seriously disrupt our operations.

Most of our operations are located in Taiwan, and the operations of many of our LED manufacturing service providers, suppliers and customers are located in Taiwan and the PRC. For the years ended August 31, 2017 and 2016, 23% and 38%, respectively, of our revenues were derived from customers located in Taiwan and China (including Hong Kong). Our operations and the operations of our customers and suppliers are vulnerable to earthquakes, tsunamis, floods, droughts, typhoons, fires, power losses and other major catastrophic events, including the outbreak, or threatened outbreak, of any widespread communicable diseases. Disruption of operations due to any of these events may require us to evacuate personnel or suspend operations, which could reduce our productivity. Such disasters may also damage our facilities and equipment and cause us to incur additional costs to repair our facilities or procure new equipment, or result in personal injuries or fatalities or result in the termination of our leases and land use agreements. Any resulting delays in shipments of our products could also cause our customers to obtain products from other sources. Although we maintain property insurance for such risks, there is no guarantee that future damages or business losses from earthquakes and catastrophic other events will be covered by such insurance, that we will be able to collect from our insurance carriers, should we choose to claim under our insurance policies, or that such coverage will be sufficient. In addition, natural disasters, such as earthquakes, tsunamis, floods and typhoons, may also disrupt or seriously affect the operations of our customers and suppliers, resulting in reduced orders or shipments or the inability to perform contractual obligations. The occurrence of any of these events could have a material adverse effect on our business, financial condition and results of operations.

Our operations in China expose us to certain inherent legal and other risks that could adversely affect our business.

As a Delaware corporation, we are subject to laws and regulations applicable to foreign companies operating in China in general and specifically to the laws and regulations applicable to foreign invested joint stock companies. The PRC legal system is a civil law system based on written statutes. Unlike common law systems, prior court decisions may be cited for reference but have limited precedential value. In 1979, the PRC government began to promulgate a comprehensive system of laws and regulations governing economic matters in general. The overall effect of legislation since then has been to significantly enhance the protections afforded to various forms of foreign investments in China. The PRC legal system continues to rapidly evolve and the interpretations of many laws, regulations and rules are not always uniform and enforcement of these laws, regulations and rules involves uncertainties, which may limit legal protections available to us. For example, our current and future operating subsidiaries in China must obtain relevant permits (including land use permits), licenses and approvals necessary for to commence operations and sales and, no assurance can be given that they will be able to do so or that if obtained that such permits, licenses or approvals will be adequate or that they will not be revoked or cancelled in the future. In addition, some regulatory requirements issued by certain PRC government authorities may not be consistently applied by other government authorities (including local government authorities), thus making strict compliance with all regulatory requirements impractical, or in some circumstances, impossible. For example, we may have to resort to administrative and court proceedings to enforce the legal protection that we have either by law or contract. However,

Table of Contents

since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we have. These uncertainties may impede our ability to enforce the contracts we have entered into with our business partners, customers and suppliers.

Because the legal and regulatory environment in China is subject to inherent uncertainties, the enforcement of our rights as a foreign company investing in China may be difficult. For example, our intellectual property may be afforded less protection in China than in some other countries. By entering the market in China in general and by licensing our intellectual property to China SemiLEDs for example, our vulnerability towards unauthorized disclosure or use of our intellectual property may be significantly increased.

Future litigation could result in substantial costs and diversion of our management's attention and resources, and could disrupt our business, as well as have a material adverse effect on our financial condition and results of operations. Given the relative unpredictability of China's legal system and potential difficulties enforcing a court judgment in China, we may be unable to halt the unauthorized use of our intellectual property through litigation, which could adversely affect our competitive position, our ability to attract customers, and our results of operations.

Strained relations between the PRC and Taiwan could negatively affect our business and the market price of our common stock.

Taiwan has a unique international political status. Since 1949, Taiwan and the PRC have been separately governed. The PRC government claims that it is the sole government in China and that Taiwan is part of China. Although significant economic and cultural relations have been established during recent years between Taiwan and the PRC, the PRC government has refused to renounce the possibility that it may at some point use force to gain control over Taiwan. Furthermore, the PRC government adopted an anti-secession law relating to Taiwan. Relations between Taiwan and the PRC governments have been strained in recent years for a variety of reasons, including the PRC government's position on the "One China" policy and tensions concerning arms sales to Taiwan by the United States government. Any tension between the Taiwan government and the PRC government, or between the United States and China, could materially and adversely affect the market prices of our common stock.

If the U.S. dollar or other currencies in which our sales, raw materials, component purchases and capital expenditures are denominated fluctuate significantly against the New Taiwan, or NT, dollar and other currencies, our profitability may be seriously affected.

We have significant foreign currency exposure, and are primarily affected by fluctuations in exchange rates among the U.S. dollar, the NT dollar and other currencies. A portion of our revenues and expenses are denominated in currencies other than NT dollars, primarily U.S. dollars. We do not hedge our net foreign exchange positions through the use of forward exchange contracts or otherwise and as a result we are affected by fluctuations in exchange rates among the U.S. dollar, the NT dollar and other currencies. For example, the announcement of Brexit caused severe volatility in global currency exchange rate fluctuations that resulted in the strengthening of the U.S. dollar against foreign currencies in which we conduct business. Any significant fluctuation in exchange rates may be harmful to our financial condition and results of operations.

The PRC government's control of currency conversion and changes in the exchange rate between the Renminbi and other currencies could negatively affect our financial condition and our ability to pay dividends.

The PRC government imposes controls on the convertibility of the Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and expenditures from trade related transactions, can be made in foreign currencies without prior approval from State Administration of Foreign Exchange in China, or SAFE, provided that we satisfy certain procedural requirements. However, approval from SAFE or its local counterpart is required where Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies. The PRC government may also at its discretion restrict access in the future to foreign currencies for current account transactions. Our revenue from sales in China (including Hong Kong) accounted for 11% and 26% of our revenues for the years ended August 31, 2017 and 2016, respectively.

Failure to comply with the U.S. Foreign Corrupt Practices Act could subject us to penalties and other adverse consequences.

We are subject to the U.S. Foreign Corrupt Practices Act, or FCPA, which generally prohibits U.S. companies from engaging in bribery or making other prohibited payments to foreign officials for the purpose of obtaining or retaining business. In addition, we are required to maintain records that accurately and fairly represent our transactions and have an adequate system of internal accounting controls. Foreign companies, including some that may compete with us, may not be subject to these prohibitions, and therefore may have a competitive advantage. In the past, there have been instances of corruption, extortion, bribery, pay-offs, theft and other fraudulent practices in Taiwan and China, as well as other Asian countries and Russia. We cannot assure that our employees or other agents will not engage in such conduct and render us responsible under the FCPA. If our employees or other agents are found to have engaged in corrupt or fraudulent business practices, we could suffer severe penalties and other consequences that may have a material adverse effect on our business, financial condition and results of operations.

Table of Contents

Risks Related to Owning Our Common Stock

We may fail to qualify for continued listing on NASDAQ which could make it more difficult for investors to sell their shares.

In December 2010, our common stock was initially approved for listing on the NASDAQ Global Select Market but was transferred to the NASDAQ Capital Market effective November 5, 2015. To maintain that listing, we must satisfy the continued listing requirements of NASDAQ for inclusion in the NASDAQ Capital Market, including among other things, a minimum stockholders' equity of $2.5 million and a minimum bid price for our common stock of $1.00 per share, that a majority of the members of our board of directors are independent under the NASDAQ Listing Rules and that our audit committee consist of three independent directors who satisfy additional requirements under the Exchange Act. Although we are currently in compliance with these requirements, there is no assurance that our common stock will continue to qualify for continued listing on NASDAQ which would materially and adversely impact the market value of our common stock.

We may seek additional capital that may result in stockholder dilution.

We may require additional capital due to continuing losses, deteriorating business conditions or other future developments. If our current sources of capital are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain bank loans and credit facilities. The sale of convertible debt securities or additional equity securities could result in dilution to our stockholders. The incurrence of further indebtedness, whether in the form of public debt or bonds or bank financing, would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations and liquidity.

Our ability to obtain external financing is subject to a number of uncertainties, including:

- our future financial condition, results of operations and cash flows and the trading price of our common stock;
- the state of global credit markets and our creditworthiness;
- general market conditions for financing activities by companies in our industry; and
- economic, political and other conditions in Taiwan, China and elsewhere.

We cannot assure you that financing, if needed, would be available in amounts or on terms acceptable to us, if at all.

Our stock price has been and may continue to be volatile and you may be unable to resell shares of our common stock at or above the price you paid.

The trading price of our common stock has been and may continue to be subject to broad fluctuations. The market price of shares of our common stock could be subject to wide fluctuations in response to various risk factors listed in this section and others beyond our control, including:

- actual or anticipated fluctuations in our key operating metrics, financial condition and operating results;
- changes in the composition of and the orders received from our customers;
- actual or anticipated changes in our growth rate;
-

issuance of new or updated research or reports by securities analysts that have a change in outlook regarding the performance of our business or the future trading price of our common stock;
- our announcement of actual results for a fiscal period that are higher or lower than projected or expected results or our announcement of revenue or earnings guidance that is higher or lower than expected;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- sales or expected sales of additional common stock;
- announcements from, or operating results of, our competitors; and
- general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions, such as recessions, interest rate changes or international currency fluctuations, may cause the market price of shares of our common stock to decline. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We had ever

Table of Contents

been a defendant in two filed actions and may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

Future sales of shares of our common stock by existing stockholders could cause our stock price to fall.

Sales of substantial amounts of our common stock in the public market, or the perception that these sales might occur, could depress the market price of our common stock and impair our ability to raise capital through the sale of additional equity securities.

As of November 13, 2017, 3.5 million shares of common stock were issued and outstanding, including approximately 0.6 million shares of common stock issued in the initial public offering, which are freely tradable without restriction by non-affiliates. Certain stockholders, including stockholders owning a majority of our outstanding shares as well as current and former employees, are eligible to resell shares of common stock in the public market under Rule 144, which, in the case of our affiliate and persons who have been affiliates in the last three months, would be subject to volume limitations and certain other restrictions under Rule 144, including that we are current in our SEC filings. In general, Rule 144 provides that any of our non-affiliates, who have held restricted common stock for at least six-months, are entitled to sell their restricted stock freely, provided that we are current in our SEC filings. After one year, a non-affiliate may sell without any restrictions.

We have also filed registration statements on Form S-8 under the Securities Act to register approximately 565 thousand shares for issuance pursuant to options or other rights to purchase common stock under our equity incentive plans. These shares can be freely sold in the public market upon issuance and once vested, subject to the applicable plan and/or the agreements entered into with holders of options or other rights to purchase common stock in connection with the issuance of such options or other rights to purchase common stock.

Our directors, executive officers and principal stockholders have substantial control over us and will be able to influence corporate matters.

As of November 13, 2017, our directors and executive officers, together with their affiliates, beneficially owned, in the aggregate, nearly one-half of our outstanding common stock. As a result, certain of these stockholders acting alone or these stockholders, acting together, would have the ability to practically control the outcome of matters submitted to our stockholders for approval, including the election of our directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these stockholders, acting together, would have the ability to control the management and affairs of our company. Accordingly, this concentration of ownership might harm the market price of our common stock by:

- limiting stockholders' ability to influence corporate matters;
- delaying, deferring or preventing a change in corporate control;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

There can be no assurance that our interests will not conflict with those of these stockholders, who may also take actions that are not in line, or may conflict, with our other stockholders' best interests.

We do not anticipate paying any cash dividends on our common stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our common stock or convertible preferred stock and do not intend to do so for the foreseeable future. We currently intend to invest our future earnings, if any, to fund our growth. Therefore, you are not likely to receive any dividends on your common stock for the foreseeable future and the success of an investment in shares of our common stock will depend upon future appreciation in their value. There is no guarantee that shares of our common stock will appreciate in value or maintain the price at which our stockholders purchased their shares.

Delaware law and our certificate of incorporation and bylaws will contain anti-takeover provisions that could delay or discourage takeover attempts that stockholders may consider favorable.

Certain provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management. As long as our major stockholder, Simplot Taiwan, Inc., which is beneficially owned by Scott R. Simplot, one of our directors, continues to hold 25% or more of the total voting power of all outstanding shares of our stock entitled to vote generally in the election of directors, shareholders holding at least 25% of the total voting power of all outstanding shares of our stock entitled to vote generally in the election of directors are able to call a special meeting in accordance with our bylaws; provided, however, at such time when the ownership interest of Simplot Taiwan, Inc. first falls below 25% of our total voting power, our amended and restated certificate of incorporation requires that a special meeting may be called only by a majority of our board of directors. Our amended and restated certificate of incorporation precludes stockholder action by written consent. In addition, our amended and restated bylaws require that any stockholder

Table of Contents

proposals or nominations for election to our board of directors must meet specific advance notice requirements and procedures, which may make it more difficult for our stockholders to make proposals or director nominations. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law. These provisions may prohibit or restrict large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us. These provisions in our certificate of incorporation and bylaws and under Delaware law could discourage potential takeover attempts and could reduce the price that investors might be willing to pay for shares of our common stock in the future and result in our market price being lower than it would be without these provisions.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. Properties

The following are significant manufacturing and office facilities that we own or lease as of August 31, 2017:

- We own a five-story building located in Hsinchu Science Park, Taiwan. We occupy approximately 183,700 square feet of the building, and we lease approximately 50,100 square feet of the building to a third party tenant. Approximately 34% of our occupied space in the building is devoted to our manufacturing operations. We lease the land on which the building is situated from the Science Park Administration in Hsinchu. We entered into an agreement in December 2015 with a strategic partner for the potential sale of the headquarters building located at Miao-Li, Taiwan. The total cash consideration for the sale is $5.2 million, of which the initial installment of $3 million was received on December 14, 2015, $1 million was due on December 31, 2016 and the balance of $1.2 million is due on December 31, 2017. As of August 31, 2017, we haven't received the $1 million due on December 31, 2016. Both parties are in discussions regarding applying the $3 million deposit as partial consideration for the strategic partner to purchase a portion of the equity of one of our subsidiaries and intend to amend the agreement for the sale of the headquarters. However, the investment is subject to the negotiation of a definitive agreement and the approval of the strategic partner's investment committee.
- Taiwan Bandaoti Zhaoming Co., Ltd., formerly known as Silicon Base Development, Inc, leases a total of approximately 22,000 square feet of manufacturing facilities and office space in Hsinchu Science Park, Taiwan, of which approximately 55% is devoted to manufacturing operations and a total of approximately 16,700 square feet of manufacturing facilities and office space in Luzhu, Taoyuan County, Taiwan, of which approximately 85% is devoted to manufacturing operations. The lease contract will expire by February 28, 2018.

We believe that our facilities are adequate to meet our current corporate and manufacturing needs and that additional space would be available on commercially reasonable terms.

Item 3. Legal Proceedings

Due to the complex technology required to compete successfully in the LED industry, participants in our industry are often engaged in significant intellectual property licensing arrangements, negotiations, disputes and litigation. We are directly or indirectly involved from time to time and may be named in various other claims or legal proceedings arising in the ordinary course of our business or otherwise.

On June 21, 2017, Well Thrive filed a complaint against SemiLEDs Corporation in the United States District Court for the District of Delaware (the "Court"). The complaint alleges that Well Thrive is entitled to return of $500 thousand paid toward a note purchase pursuant to the Purchase Agreement effective July 6, 2016 with Dr. Peter Chiou, which was assigned to Well Thrive on August 4, 2016. Pursuant to the terms of the Purchase Agreement, we have retained the $500 thousand payment as liquidated damages. Well Thrive alleges that the liquidated damages provision is unenforceable as an illegal penalty and does not reflect the amount of purported damages. Well Thrive and SemiLEDs jointly filed a Joint Status Report, along with their proposed scheduling order on September 20, 2017 accordingly to the order required by the Court. Both parties are waiting whether the Court adopts the proposals in the proposed scheduling order.

Item 4. Mine Safety Disclosures

Not applicable.

Table of Contents

PART II.

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

Market Price Information for our Common Stock

Our common stock began trading on the NASDAQ Global Select Market under the symbol “LEDS” on December 8, 2010 and was transferred to the NASDAQ Capital Market effective November 5, 2015 where it continues to trade under the same symbol. The following table sets forth, for the quarters indicated, the high and low sales prices as reported by NASDAQ. All share prices have been adjusted to reflect our one-for-ten (1:10) reverse stock split effectuated on April 15, 2016.

Fiscal Year 2016	High	Low
First Quarter (September – November 2015)	$5.74	$3.50
Second Quarter (December 2015 – February 2016)	$4.90	$2.70
Third Quarter (March – May 2016)	$3.60	$1.36
Fourth Quarter (June – August 2016)	$11.35	$1.37

Fiscal Year 2017	High	Low
First Quarter (September – November 2016)	$8.15	$3.33
Second Quarter (December 2016 – February 2017)	$4.95	$3.04
Third Quarter (March – May 2017)	$4.58	$2.00
Fourth Quarter (June – August 2017)	$3.00	$1.61

There were 62 holders of record of our common stock as of November 13, 2017.

Dividend Policy

We have never declared or paid, and do not have any present plan to declare or pay any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings for use in the operation and expansion of our business. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors and will depend on then existing conditions, including our financial condition, operating results, general business conditions, contractual restrictions, capital requirements, business prospects, restrictions on the payment of dividends under Delaware law and any other factors our board of directors may deem relevant.

Recent Sales of Unregistered Securities

Not applicable.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

We did not make any repurchases of our common stock and no purchases of common stock were made on our behalf during the fourth quarter of our fiscal 2017.

Item 6. Selected Financial Data

Not applicable.

Table of Contents

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

The following discussion and analysis of our financial condition and results of operations is based upon and should be read in conjunction with the audited consolidated financial statements and the notes included elsewhere in this Annual Report on Form 10 K, as well as the Risk Factors contained in Part I, Item 1A of this Annual Report on Form 10 K, and other information provided from time to time in our other filings with the SEC.

Overview

We develop, manufacture and sell light emitting diode (LED) chips and LED components. Our products are used primarily for general lighting applications, including street lights and commercial, industrial and residential lighting. Our LED chips may also be used in specialty industrial applications, such as ultraviolet, or UV, curing of polymers, LED light therapy in medical/cosmetic applications, counterfeit detection, LED lighting for horticulture applications, architectural lighting and entertainment lighting.

We package our LED chips into LED components, which we sell to distributors and a customer base that is heavily concentrated in a few select markets, including Taiwan, the United States and China (including Hong Kong). We also sell our "Enhanced Vertical," or EV, LED product series in blue, white, green and UV in selected markets. We sell our LED chips to packagers or to distributors, who in turn sell to packagers. Our lighting products customers are primarily original design manufacturers, or ODMs, of lighting products and the end users of lighting devices. We also contract other manufacturers to produce for our sale certain LED products, and for certain aspects of our product fabrication, assembly and packaging processes, based on our design and technology requirements and under our quality control specifications and final inspection process.

We are a holding company for various wholly owned subsidiaries. SemiLEDs Optoelectronics Co., Ltd., or Taiwan SemiLEDs, is our wholly owned operating subsidiary, where a substantial portion of our assets are held and located and where a portion of our research, development, manufacturing and sales activities take place. Taiwan SemiLEDs owns a 100% equity interest in Taiwan Bandaoti Zhaoming Co., Ltd., formerly known as Silicon Base Development, Inc., which is engaged in the research, development, manufacture, and substantial portion of marketing and sale of LED products, and where most of our employees are based.

Key Factors Affecting Our Financial Condition, Results of Operations and Business

The following are key factors that we believe affect our financial condition, results of operations and business:

- Our ability to raise additional debt funding, sell additional equity securities and improve our liquidity. We need to improve our liquidity, access alternative sources of funding and obtain additional equity capital or credit when necessary for our operations. However, we may not be able to obtain such debt funding or sell equity securities on terms that are favorable to us, or at all. The raising of additional debt funding by us, if required and available, would result in increased debt service obligations and could result in additional operating and financing covenants, or liens on our assets, that would restrict our operations. The sale of additional equity securities, if required and available, could result in dilution to our stockholders.
-

Our ability to outsource manufacturing and our ability to get chips from other chip suppliers. Our reliance on our new ODM partner exposes us to a number of significant risks, including reduced control over delivery schedules, quality assurance and production costs, lack of guaranteed production capacity or product supply, and the possible breach of the manufacturing agreement by the contract manufacturer because of factors beyond our control. For example, we and our ODM partner are waiting for the qualification of the chip products manufactured by the ODM partner using their facilities. The delay for delivering products on time at a satisfactory level of quality has resulted in difficulties fulfilling our customer orders. As a consequence, our revenues attributable to the sales of our LED chips declined. If our ODM partner is unable or unwilling to continue to manufacture our products at requested quality, quantity, performance and costs, or in a timely manner, our business and reputation could be seriously harmed. As a result, we would have to identify and qualify substitute manufacturers, which could be time consuming and difficult, and might result in unforeseen manufacturing and operations problems. Our inability to procure chips from other chip suppliers at the desired quality, quantity, performance and cost might result in unforeseen manufacturing and operations problems. In such events, our customer relationships, business, financial condition and results of operations would be adversely affected.

- Industry growth and demand for products and applications using LEDs. The overall adoption of LED lighting devices to replace traditional lighting sources is expected to influence the growth and demand for LED chips and component products and impact our financial performance. We believe the potential market for LED lighting will continue to expand. LEDs for efficient generation of UV light are also starting to gain attention for various medical, germicidal and industrial applications. Since a substantial portion of our LED chips, LED components and our lighting products are used by end users in general lighting applications and specialty industrial applications such as UV curing, medical/cosmetic, counterfeit detection, horticulture, architectural lighting and entertainment lighting the adoption of LEDs into these applications will have a strong impact on the demand of LED chips generally and, as a result, for our LED chips, LED components and LED lighting products.
- Average selling price of our products. The average selling price of our products may decline for a variety of factors, including prices charged by our competitors, the efficacy of our products, our cost basis, changes in our product mix, the size of the order and

Table of Contents

our relationship with the relevant customer, as well as general market and economic conditions. Competition in the markets for LED products is intense, and we expect that competition will continue to increase, thereby creating a highly aggressive pricing environment. For example, some of our competitors have in the past reduced their average selling prices, and the resulting competitive pricing pressures have caused us to similarly reduce our prices, accelerating the decline in our revenues and the gross margin of our products. When prices decline, we must also write down the value of our inventory. Furthermore, the average selling prices for our LED products have typically decreased over product life cycles. Therefore, our ability to continue to innovate and offer competitive products that meet our customers' specifications and pricing requirements, such as higher efficacy LED products at lower costs, will have a material influence on our ability to improve our revenues and product margins, although in the near term the introduction of such higher performance LED products may further reduce the selling prices of our existing products or render them obsolete.

- Changes in our product mix. We anticipate that our gross margins will continue to fluctuate from period to period as a result of the mix of products that we sell and the utilization of our manufacturing capacity in any given period, among other things. For example, we continue to pursue opportunities for profitable growth in areas of business where we see the best opportunity to develop as an end-to-end LED module solution supplier by providing our customers with high quality, flexible and more complete LED system solution, customer technical support and LED module/system design, as opposed to just providing customers with individual components. As a strategic plan, we have placed greater emphasis on the sales of LED components rather than the sales of LED chips where we have been forced to cut prices on older inventory. Steadily growth of the module product and the continued commercial sales of our UV LED product are expected to improve our gross margin, operating results and cash flows. In addition, we have adjusted the lower-priced LED components strategy as appropriate. We have adopted a strategy to adjust our product mix by exiting certain high volume but low unit selling price product lines in response to the general trend of lower average selling prices for products that have been available in the market for some time. However, as we expand and diversify our product offerings and with varying average selling prices, or execute new business initiatives, a change in the mix of products that we sell in any given period may increase volatility in our revenues and gross margin from period to period.
- Our ability to reduce cost to offset lower average selling prices. Competitors may reduce average selling prices faster than our ability to reduce costs, and competitive pricing pressures may accelerate the rate of decline of our average selling prices. To address increased pricing pressure, we have improved and increased our production yields to reduce the per-unit cost of production of our products. However, such cost savings currently have limited impact on our gross profit, as we currently suffer from the underutilization of manufacturing capacity and must absorb a high level of fixed costs, such as depreciation. We are moving toward a fabless business model in which we would utilize foundry fabs to ODM our chips using our developed technology. As part of the restructuring, we continue to explore opportunities to sell our chip manufacturing equipment to our ODM partner or others, which will help us to reduce the idle capacity costs. While we intend to focus on managing our costs and expenses, over the long term we expect to be required to invest substantially in LED component products development and production equipment if we are to grow.
- Our ability to continue to innovate. As part of our growth strategy, we plan to continue to be innovative in product design, to deliver new products and to improve our manufacturing efficiencies. Our continued success depends on our ability to develop and introduce new, technologically advanced and lower cost products, such as more efficient, better performance LED component products. If we are unable to introduce new products that are commercially viable and meet rapidly evolving customer requirements or keep pace with evolving technological standards and market developments or are otherwise unable to execute our product innovation strategy effectively, we may not be

able to take advantage of market opportunities as they arise, execute our business plan or be able to compete effectively. In August 2015, we launched two UV COB module products: D4525 and D4825. These high density UV modules are suggested to be driven at 120W and 200W respectively with efficient thermal management. To differentiate ourselves from other LED package manufacturers, we are putting more resources towards module and system design. Along with our technical know-how in the chip and package sectors, we are able to further integrate electrical, thermal and mechanical manufacturing resources to provide customers with one-stop system services. Services include design, prototyping, OEM and ODM. Key markets that we intend to target at the system end include different types of UV LED industrial printers, aquarium lighting, medical applications, niche imaging light engines, horticultural lighting and high standard commercial lighting. The modules are designed for various printing, curing, and PCB exposure industrial equipments, providing uncompromised reliability and optical output. Our LED components include different sizes and wattage to accommodate different demands in the LED market.

• General economic conditions and geographic concentration. Many countries including the United States and the European Union (the "E.U.") members have instituted, or have announced plans to institute, government regulations and programs designed to encourage or mandate increased energy efficiency in lighting. These actions include in certain cases banning the sale after specified dates of certain forms of incandescent lighting, which are advancing the adoption of more energy efficient lighting solutions such as LEDs. The global financial crisis that began in late 2007 caused extreme disruption in the financial markets. Although the disruption in the financial markets moderated thereafter, the global financial markets continue to reflect uncertainty about a sustained economic recovery. When the global economy slows or a financial crisis occurs, consumer and government confidence declines, with levels of government grants and subsidies for LED adoption and consumer spending likely to be adversely impacted. Our revenues have been concentrated in a few select markets, including Taiwan, the United States and China (including Hong

Table of Contents

Kong). Given that we are operating in a rapidly changing industry, our sales in specific markets may fluctuate from quarter to quarter. Therefore, our financial results will be impacted by general economic and political conditions in such markets. For example, the aggressive support by the Chinese government for the LED industry through significant government incentives and subsidies to encourage the use of LED lighting and to establish the LED sector companies has resulted in production overcapacity in the market and intense competition. Furthermore, due to Chinese package manufacturers increasing usage of domestic LED chips, prices are increasingly competitive, leading to Chinese manufacturers growing market share in the global LED industry. In addition, we have historically derived a significant portion of our revenues from a limited number of customers. Some of our largest customers and what we produce/have produced for them have changed from quarter to quarter primarily as a result of the timing of discrete, large project based purchases and broadening customer base, among other things. For the years ended August 31, 2017 and 2016, sales to our three largest customers, in the aggregate, accounted for 49% and 39% of our revenues, respectively.

- Intellectual property issues. Competitors of ours and other third parties have in the past and will likely from time to time in the future allege that our products infringe on their intellectual property rights. Defending against any intellectual property infringement claims would likely result in costly litigation and ultimately may lead to our not being able to manufacture, use or sell products found to be infringing. In June 2012, we settled an intellectual property dispute involving Cree. We agreed to dismiss amended complaints filed against each other without prejudice. We agreed to the entry of a permanent injunction that was effective October 1, 2012 that precludes us from (and/or from assisting others in) making, using, importing, selling and/or offering to sell in the United States certain accused products and/or any device that includes such an accused product after that date and to payment of a settlement fee for past damages. All accused products sold before the date of settlement are released under this agreement and our customers and distributors are specifically released. All remaining claims between Cree and us were withdrawn without prejudice, with each retaining the right to assert them in the future. However, other third parties may also assert infringement claims against our customers with respect to our products, or our customers' products that incorporate our technologies or products. Any such legal action or the threat of legal action against us, or our customers, could impair such customers' continued demand for our products. This could prevent us from growing or even maintaining our revenues, or cause us to incur additional costs and expenses, and adversely affect our financial condition and results of operations.
- Declining cash position. Our cash and cash equivalents decreased to $3.6 million as of August 31, 2017 primarily due to the combination of our net cash used in operating activities and payments related to long-term debt. We have implemented actions to accelerate operating cost reductions and improve operational efficiencies. The plan is further enhanced through the fabless business model in which we implemented certain workforce reductions and are exploring opportunities to sell certain equipment related to the manufacturing of vertical LED chips to our ODM partner or others, in order to reduce the idle capacity charges, minimize our research and development activities associated with chips manufacturing operation. We believe we will be able to generate positive cash inflows through the restructuring of our chip operation and the significant ongoing cost savings in the form of reduced payroll and research and development activities. The shipment of our new module product and the continued commercial sales of our UV LED product are expected to grow steadily. Based on our current financial projections, we believe that we will have sufficient sources of liquidity to fund our operations and capital expenditure plans for the next 12 months. Please see "Critical Accounting Policies and Estimates— Basis of Presentation— Going Concern" for more information about our liquidity plans.

Components of Consolidated Statements of Operations

Revenues, net

Our core products are LED components, which are the most important part of our business, as well as LED chips and lighting products.

Our revenues are affected by sales volumes of our LED chips, LED components and lighting products and our average selling prices for such products. In addition, as we expand and diversify our product offerings and with varying average selling prices, any change in the mix of products that we sell in any given period may affect our total revenues. For example, average selling prices for our LED components are generally higher than for LED chips and the average selling prices for our lighting products are higher than for our LED chips and LED components.

We recognize revenue on sales of our products when persuasive evidence of an arrangement exists, the price is fixed or determinable, ownership and risk of loss has transferred and collection of the sales proceeds is probable. We obtain written purchase authorizations from our customers as evidence of an arrangement and these authorizations generally provide for a specified amount of product at a fixed price. We typically consider delivery to have occurred at the time of shipment, unless otherwise agreed in the applicable sales terms, as this is generally when title and risk of loss for the product passes to the customer.

Our larger customers typically provide us with non binding rolling forecasts of their requirements for the coming one to three months; however, recent global economic uncertainty and weakness has led to reduced spending in our target markets and made it difficult for our customers and us to accurately forecast and plan future business activities. Our customers may increase, decrease, cancel or delay purchase orders already in place, with no material consequences to the customer. As a result, we may face increased inventories and our backlog may decline as a result of any economic downturn or material change in market conditions or economic outlook. We price our products in accordance with prevailing market conditions, taking into account the technical specifications of the product being sold, the order volume, the

Table of Contents

strength and history of our relationship with the customer, our inventory levels and our capacity utilization. When average selling prices drop, as they did in recent years, inventory write downs to net realizable values may also result.

Our customers consist primarily of packagers, ODMs and end customers. Our revenues attributable to our ten largest customers accounted for 69% and 60% of our revenues for the years ended August 31, 2017 and 2016, respectively.

Our revenues have been concentrated in a few select markets, including Taiwan, the United States and China (including Hong Kong). Net revenues generated from these countries, in the aggregate, accounted for 71% and 79% of our net revenues for the years ended August 31, 2017 and 2016, respectively. We expect that our revenues will continue to be substantially derived from these countries for the foreseeable future. Given that we are operating in a rapidly changing industry, our sales in specific markets may fluctuate from quarter to quarter. Therefore, our financial results will be impacted by general economic and political conditions in such markets.

Our revenues are presented net of estimated sales returns and discounts. We estimate sales returns and discounts based on our historical discounts and return rates and our assessment of future conditions.

Cost of Revenues

Our cost of revenues consists primarily of cost of materials, depreciation expenses, manufacturing overhead costs, direct labor costs and utilities cost, all related to the manufacture of our LED products. Materials include raw materials, other materials such as gases and chemicals, consumables, and assembly materials. Because our products are manufactured based on customers' orders and specifications and we purchase materials and supplies to support such orders, we generally purchase our materials at spot prices in the marketplace and do not maintain long term supply contracts. We purchase materials from several suppliers. Our procurement policy is to select only a small number of qualified vendors who demonstrate quality of materials and reliability on delivery time. We are subject to variations in the cost of our materials and consumables from period to period. Moreover, because we consume a significant amount of electricity in our manufacturing process, any fluctuations in electricity costs will have an impact on our cost of revenues. We also use contract manufacturers to produce for our sale certain LED products, and for certain aspects of our product fabrication, assembly and packaging processes, based on our design and technology requirements and under our quality control specifications and final inspection process.

Direct labor costs consist of salary (including stock based compensation), bonus, training, retirement and other costs related to our employees engaged in the manufacture of our products. Manufacturing overhead costs consist primarily of salaries, bonuses and other benefits (including stock based compensation expenses) for our administrative personnel allocated to manufacturing functions, repairs and maintenance costs for equipment and machinery maintenance costs and lease expenses.

Our cost of revenues also includes excess capacity charges as a result of the underutilization of our manufacturing capacity and inventory valuation adjustments to write down our inventories to their estimated net realizable values as a result of declines in their average selling prices.

Operating Expenses

Research and development. Our research and development expenses, which are expensed as incurred, consist primarily of expenses related to employee salaries, bonuses and other benefits (including stock based compensation expenses) for our research and development personnel, engineering charges related to product design, purchases of materials and supplies, repairs and maintenance and depreciation related expenses.

Selling, general and administrative. Selling, general and administrative expenses consist primarily of salaries, bonuses and other benefits (including stock based compensation expenses) for our administrative, sales and marketing personnel, expenses for professional services, which include fees and expenses for accounting, legal, tax and valuation services, amortization and depreciation related expenses, marketing related travel, lease expenses, entertainment expenses, allowance for doubtful accounts and general office related expenses, as well as compensation to our directors. We expect our selling, general and administrative expenses to decrease as we continue to implement cost reduction initiatives, such as spending controls, and as we continue to streamline our operations.

Impairment of long-lived assets. We recognized impairment charges on our long-lived assets, which consisted of property, plant and equipment and intangible assets, for the year ended August 31, 2016. The $7.4 million of impairment charges on property, plant and equipment were primarily related to machinery and equipment used in the manufacturing of LED epitaxial wafers and chips. During the year ended August 31, 2016, we also recognized $1.2 million of impairment charges on the intangible assets, which consist primarily of patents, trademarks and acquired technology.

Employee termination benefits. In December 2015, we announced a restructuring plan with respect to our chips manufacturing operation in order to better align our fabless business model. Under the restructuring plan, we implemented certain workforce reductions with respect to our chips manufacturing operation. We recognized employee termination benefits of $207 thousand for 66 employees, or approximately 29 percent of our workforce for the year ended August 31, 2016.

Table of Contents

Gain on Disposal of Long Lived Assets, net. We recognized a gain of $149 thousand and $23 thousand on the disposal of long-lived assets for the year ended August 31, 2017 and 2016, respectively. Due to the excess capacity charges that we have suffered for a few years, considering the risk of technological obsolescence and according to the production plan built based on our sales forecast, we disposed of a certain level of our idle equipment.

Other Income (Expense)

Impairment loss on investment. We recognized impairment losses of $0.4 million on our investments in Intematix, that we account for using the cost method during the year ended August 31, 2017 and $0.6 million on our cost method investments in LumenMax and Nanoteco during the year ended August 31, 2016 as a result of other-than-temporary decline in the value of our investments.

Equity in loss from unconsolidated entities. Loss from unconsolidated entities consists of our portion of the income or losses of SILQ. The entity had been accounted for using the equity method of accounting, and as such, we generally recognized our portion of the net income or loss from the entity in our consolidated statements of operations. We report our investment in the entity as investments in unconsolidated entities on our consolidated balance sheets and such investment amounts are initially stated at cost, and subsequently adjusted for our portion of equity in undistributed earnings or losses. As of August 31, 2016, the carrying amount of our investment in SILQ had been reduced to our proportionate share of the net realizable value reported by SILQ. We sold all of our equity interest in SILQ and Nanoteco in November 2016 and February 2017 and recognized a loss on sale of investment of $9 thousand and $2 thousand for the year ended August 31, 2017, respectively.

Interest expenses, net. Interest expenses, net consists of interest income and interest expense. Interest income represents interest earned from our cash and cash equivalents deposited with commercial banks in the United States and Taiwan. As of August 31, 2017 and 2016, we had cash and cash equivalents of $3.6 million and $6.0 million, respectively, which consisted of time deposits with initial maturity of greater than three months. Interest expense consists primarily of interest on our long term borrowings and/or short term lines of credit with certain banks in Taiwan. We had long term debt totaling $2.7 million and $2.9 million as of August 31, 2017 and 2016, respectively.

Other income, net. Other income, net consists primarily of favorable settlement of the lawsuit with Mr. Han and rental income from the lease back of second floor of our Hsinchu building to the original owner, net of related depreciation charge, and government subsidy income to our research and development plan.

Foreign currency transaction gain (loss), net. The functional currency for certain of our consolidated and majority owned subsidiaries is in a currency other than U.S. dollars. For example, the functional currency for Taiwan SemiLEDs and certain other subsidiaries, is the NT dollar, and the functional currency for Xuhe Guangdian Co., Ltd. or Shenzhen SemiLEDs, is the Renminbi. Gains or losses on foreign currency transactions are recognized in our consolidated statements of operations as foreign currency transaction gains or losses. Certain purchase contracts for materials, supplies and equipment entered into by these subsidiaries are denominated in currencies other than NT dollars, mainly in U.S. dollars and to a lesser extent Japanese Yen. For our customers outside of Taiwan, these subsidiaries quote prices for our products and bill our customers in U.S. dollars, and record revenues and accounts receivable in NT dollars for such orders at the time of such sale based on our revenue recognition policies. Most of our sales to customers and purchases are on credit. Any changes in the exchange rates between the NT dollar, U.S.

dollar, Japanese Yen and other currencies will result in our recognizing foreign currency transaction gains or losses, as the case may be, depending on the movement of the foreign exchange rates from the time when we record revenues and purchases, to the time we receive and make payment. We also have foreign currency transaction gains or losses from cash and cash equivalents held in currencies other than the functional currency of our non U.S. subsidiaries that holds such deposits.

Provision for Income Taxes

United States tax treatment. We and our subsidiary, Helios Crew, are United States corporations and are therefore required to file federal income tax returns with the Internal Revenue Service as well as with certain applicable state tax authorities. As our operations in the United States have been minimal, we have not to date recorded nor paid any significant federal or state corporate income tax.

We have investments in controlled foreign corporations and affiliates, which under Subpart F of the United States Internal Revenue Code, or Subpart F, may under certain circumstances subject our investments in controlled foreign corporations and affiliates to taxation in the United States. Subpart F provides that United States corporations may be required to include in their income certain undistributed earnings of the foreign corporations and affiliates as though such earnings had been distributed currently. Subpart F applies only to United States shareholders (such as us) who hold an interest in a foreign corporation and affiliates that meet the definition of a “controlled foreign corporation.” Under Section 957(a) of the United States Internal Revenue Code, a “controlled foreign corporation” means any foreign corporation if more than 50% of either (i) the total combined voting power of all classes of stock of such corporation entitled to vote, or (ii) the total value of the stock of such corporation, is owned by “United States Shareholders” on any day during the foreign corporation’s taxable year.

Table of Contents

Subpart F does not apply, however, to the income of a controlled foreign corporation generated from the sale of goods that are manufactured in its country of incorporation. Also, any income attributable to a controlled foreign corporation and its affiliates that is not engaged in a United States trade or business is generally not subject to United States taxation until its earnings are distributed, or the stock of the foreign corporation is disposed. All of our products are manufactured in Taiwan by Taiwan SemiLEDs, our wholly owned foreign subsidiary. Because Taiwan SemiLEDs conducts its manufacturing activities in Taiwan, the income or loss of Taiwan SemiLEDs is included in our consolidated financial statements, but is not considered taxable income for United States taxation purposes pursuant to Section 954(d)(1)(A) of the United States Internal Revenue Code. This generally enables a United States taxpayer, such as us, to indefinitely defer United States taxation on the profits earned by its controlled foreign corporations and affiliates by retaining the earnings in such entities. We do not currently have any plans to repatriate any of our retained earnings from any of our controlled foreign subsidiaries or affiliates and we do not currently have any plans to declare or pay any dividends from such entities.

It has been reported, however, that the current presidential administration in the United States may seek to modify the rules governing taxation of controlled foreign corporations and affiliates and any such changes may result in our having to pay applicable taxes in the United States on income earned by such entities in the future.

Taiwan tax treatment. The corporate income tax rate in Taiwan is 17%. Corporate income taxes payable, however, are subject to an alternative minimum tax. The Taiwan government enacted the Taiwan Alternative Minimum Tax Act, or the AMT Act, on January 1, 2006. Under the AMT Act, a taxpayer must pay the higher of its taxable income multiplied by the corporate income tax rate or the alternative minimum tax, or AMT. In calculating the AMT amount, the taxpayer must include income that would otherwise be exempt from taxation pursuant to various tax holidays or investment tax credits, other than certain exemptions or tax credits that have been grandfathered for the purposes of calculating AMT. The AMT rate for business entities is 12%. In addition to the statutory corporate taxes payable, or the AMT, corporate taxpayers in Taiwan are subject to an additional 10% tax on distributable retained earnings (after statutory legal reserves) to the extent that such earnings are not distributed prior to the end of the subsequent year. This undistributed earnings surtax is determined in the subsequent year when the distribution plan relating to earnings attributable to the prior year is approved by a company's stockholders and is payable in the subsequent year. Because most of our subsidiaries in Taiwan incurred losses before income tax for both our fiscal year 2017 and 2016, we do not expect to pay such taxes on undistributed earnings.

Certain of our consolidated and majority owned subsidiaries in Taiwan are entitled to certain tax credits under the Statute for Industrial Innovation. A Taiwan company is entitled to apply for a tax credit of up to 15% of the aggregate amount invested in research and development if the amount of such credit does not exceed 30% of its income tax payable for that year. Any unused credit cannot be carried over to later years.

As of August 31, 2017, we had total foreign net operating loss carryforwards of $107.8 million, arising primarily from certain of our consolidated and majority owned subsidiaries in Taiwan, which will expire in various amounts in future years. Pursuant to the Taiwan Income Tax Act, as amended in January 2009, net operating loss carryforwards can be carried forward for a period of ten years.

In addition, in accordance with the Taiwan Income Tax Act, dividends distributed by companies incorporated in accordance with the Taiwan Company Act shall be deemed as income derived from sources in Taiwan and income taxes shall be levied on the shareholders receiving such dividends. In the event that a Taiwan incorporated company distributes dividends to its foreign shareholders, it will be required to withhold tax payable by the foreign shareholders at the time of payment at a rate of 20% or a lower tax treaty rate if applicable. Therefore, dividends received from our subsidiaries in Taiwan, if any, will be subjected to withholding tax under Taiwan law.

Inventory Valuation

Inventories consist of raw materials, work in process and finished goods and are stated at the lower of cost or market value. We determine cost using a weighted average. For work in process and manufactured inventories, cost consists of raw materials, direct labor and an allocated portion of our production overhead. At each balance sheet date, we evaluate our ending inventories for excess quantities and obsolescence and we write down our inventory to its estimated net realizable value based upon assumptions about future demand and market conditions. Our estimation of future demand is primarily based on the backlog of customer orders as of the balance sheet date and projections based on our actual historical sales trends and customers' demand forecast. We evaluated our inventories on an individual item basis. For our finished goods and work in process, if the estimated net realizable value for an inventory item, which is the estimated selling price in the ordinary course of business, less reasonably predictable costs to completion and disposal, is lower than its cost, the specific inventory item is written down to its estimated net realizable value. Market for raw materials is based on replacement cost. We also write down items that are considered obsolete based upon changes in customer demand, manufacturing process changes or new product introductions that may eliminate demand for the product. Once written down, inventories are carried at this lower amount until sold or scrapped. Provisions for inventory write downs are included in our costs of revenues in the consolidated statements of operations. There is significant judgment involved with the estimates of excess and obsolescence and if our estimates regarding customer demand or other factors are inaccurate or actual market conditions or technological changes are less favorable than those estimated by management, additional future inventory write downs may be required that could adversely affect our operating results. Inventory write downs totaled $1.5 million for both the years ended August 31, 2017

34

Table of Contents

and 2016. A majority of our inventory write downs during the years ended August 31, 2017 and 2016 was related to finished goods and work in process, primarily as a result of obsolescence.

Income Taxes

We are subject to income taxes in both the United States and foreign jurisdictions. Significant management judgment is required in determining our income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. Our deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in our consolidated statements of operations become deductible expenses under applicable income tax laws or when loss or credit carryforwards are utilized. Realization of these deferred tax assets is dependent on our ability to earn future taxable income against which these deductions, losses and credits can be utilized. Therefore, we assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that recovery is not more likely than not, a valuation allowance is established. These estimates and judgments about our future taxable income are based on assumptions that are consistent with our future plans. A net cumulative loss in recent years is a significant piece of negative evidence in determining the realization of the benefits of deferred tax assets. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. We have provided a full valuation allowance on our deferred tax assets because our cumulative losses in recent years causes us to believe that realization of our deferred tax assets is not more likely than not.

Useful Life of Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and amortization. Depreciation on property, plant and equipment is calculated using the straight line method over the estimated useful lives of the assets. Leasehold improvements are amortized using the straight line method over the shorter of the lease term or the estimated useful life of the asset. We make estimates of the useful life of our property, plant and equipment in order to determine depreciation expense to be recorded each reporting period based on similar assets purchased in the past and our historical experience with such similar assets, as well anticipated technological or market changes. The estimated useful life of our property, plant and equipment directly impacts the timing of when our depreciation expense is recognized. There is significant judgment involved with estimating the useful lives of our property, plant and equipment, and a change in the estimates of such useful lives could cause our depreciation expense in future periods to increase significantly. We made certain changes in the estimates of the useful life and salvage value of our property, plant and equipment to be depreciated in subsequent periods over its remaining estimated useful life at August 31, 2016. Consequently, there was no impact on the consolidated financial statements in fiscal 2016. The impact of the change for fiscal 2017 and afterwards was immaterial.

Impairment of Long lived Assets

In assessing the recoverability of our long lived assets, we first, determine whether indicators of impairment are present. Circumstances such as the discontinuation of a product or product line, a sudden or consistent decline in the forecast for a product, changes in technology or in the way an asset is being used, a history of negative operating cash flow, or an adverse change in legal factors or in the business climate, among others, may trigger an impairment review. Second, if we determine that indicators of impairment are present, we determine whether the estimated undiscounted cash flows expected to be generated from the use and eventual disposal of the potentially impaired assets (or asset group) are less than the carrying amount. Third, if such estimated undiscounted cash flows do not exceed the carrying amount, we estimate the fair value of the asset (or asset group) and recognize an impairment charge if the carrying amount is greater than the fair value of the asset (or asset group). Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values and third party independent appraisers, as considered necessary. We group our long lived assets with other assets and liabilities at the lowest level for which identifiable cash flows are generated, or an asset group. We determined that we have two asset groups for impairment testing purposes, one of which is associated with the manufacture and sale of LED chips and LED components, and the other is associated with our Ning Xiang subsidiary, which is engaged in the manufacture and sale of lighting fixtures and systems.

The estimates of future cash flows involve subjective judgments and represent our best estimate at each date of assessment about future developments, determined based on reasonable and supportable assumptions and projections taking into account past experience, as well as market data obtained from independent external sources. The use of different assumptions could increase or decrease the estimates of expected future cash flows and consequently, increase or decrease the related impairment charges. For example, if the average selling prices continue to decline beyond the assumptions used in our forecast of future cash flows expected to be generated by the asset groups, or if demand for our LED products does not grow as we anticipate, or if utilization rates are lower than anticipated, it is reasonably possible that the estimate of expected future cash flows may change in the near term resulting in the need to adjust our determination of fair value.

For the year ended August 31, 2017, lower than projected sales of our LED products and lower market capitalization compared to our consolidated net book values again indicated potential impairment of our long lived assets. We projected undiscounted future cash flows to analyze potential impairment, based upon a variety of factors, including primarily our continuous efforts to suppress gross loss from chip sales and the cooperation model discussed with our ODM partner and other parties, considering all known trends and uncertainties. The significant assumptions used in determining the estimated undiscounted cash flows for the LED chips and components asset group were revised to reflect

Table of Contents

the new operation status. Based on the assessment, the expected undiscounted cash flows to be generated by this asset group exceeded its carrying value by 49%. Consequently, no asset impairment was recognized during the year ended August 31, 2017.

In fiscal 2016, we continued to experience a decline in revenues and negative gross margins, primarily due to longer than anticipated time for the transition toward the fabless business model, a continued slowdown in demand for our LED products and pricing pressure from intense competition within the LED industry. During the fourth quarter of fiscal 2016, the ODM partner, which just recovered from a serious catastrophic event, expressed its interest in acquiring a portion of the equity of one of our subsidiaries. Although the discussion is in a preliminary stage, management believes the evaluation will take time and may further delay the transition schedule, which caused us to update our long-term financial forecasts, which reflected lower estimated near-term and longer-term revenues and profitability compared to estimates developed from prior years. Our market capitalization had also fallen below its consolidated net book value based on the quoted market price of common stock for a sustained period of time. Based on these potential impairment indicators, we evaluated the recoverability of long-lived assets for impairment in fiscal 2016. The carrying amount of the Company’s asset group associated with the manufacture and sale of LED chips and LED components exceeded the expected future net undiscounted cash flows to be generated from this asset group. The Company determined that the fair value of the asset group exceeded its carrying value by $8,635 thousand. The fair value of the asset group was determined, with the assistance of a third party independent valuation, based on the present value of expected future net cash flows discounted at the weighted average cost of capital of 13.4%. The resulting impairment charge that was allocated to the property, plant and equipment and to the intangible assets of the asset group was $7,433 thousand and $1,202 thousand, respectively, for the year ended August 31, 2016.

Exchange Rate Information

We are a Delaware corporation and, under SEC requirements, must report our financial position, results of operations and cash flows in accordance with U.S. GAAP. At the same time, our subsidiaries use the local currency as their functional currency. For example, the functional currency for Taiwan SemiLEDs is the NT dollar. The assets and liabilities of the subsidiaries are, therefore, translated into U.S. dollars at exchange rates in effect at each balance sheet date, with the resulting translation adjustments recorded to a separate component of accumulated other comprehensive income (loss) within equity. Income and expense accounts are translated at average exchange rates during the period. Any gains and losses from transactions denominated in currencies other than their functional currencies are recognized in the consolidated statements of operations as a separate component of other income (expense). Due to exchange rate fluctuations, such translated amounts may vary from quarter to quarter even in circumstances where such amounts have not materially changed when denominated in their functional currencies.

The translations from NT dollars to U.S. dollars were made at the exchange rates set forth in the statistical release of the Bank of Taiwan. On August 31, 2017, the exchange rate was 30.18 NT dollars to one U.S. dollar. On November 13, 2017, the exchange rate was 30.19 NT dollars to one U.S. dollar.

The following table sets forth, for the periods indicated, information concerning the number of NT dollars for which one U.S. dollar could be exchanged.

	NT dollars per U.S. dollar			
	Average(1)	High	Low	Period-End
Fiscal 2015	31.08	32.86	29.86	32.50
Fiscal 2016	32.55	33.77	31.19	31.73
Fiscal 2017	30.95	32.30	30.04	30.18
September 2017	30.13	30.38	29.99	30.26
October 2017	30.25	30.44	30.16	30.17
November 2017 (through November 13, 2017)	30.18	30.20	30.17	30.19

(1) Annual averages calculated from month end rates and monthly averages calculated from daily closing rates.
No representation is made that the NT dollar or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or NT dollars, as the case may be, at any particular rate or at all.

Results of Operations

The following table sets forth, for the periods presented, our consolidated statements of operations information. In the table below and throughout this "Management's Discussion and Analysis of Financial Condition and Results of Operations," the following consolidated statement of operations data for the years ended August 31, 2017 and 2016 has been derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10 K. The information contained in the table below should be read in conjunction with our consolidated financial statements and notes thereto included in Item 8, Financial Statements and Supplementary Data, of this Annual Report on Form 10 K. The historical results presented below are not necessarily indicative of the results that may be expected for any future period:

Table of Contents

	Years Ended August 31,			
	2017		2016	
	$	% of Revenues	$	% of Revenues
	(in thousands)			
Consolidated Statement of Operations Data:				
Revenues, net	$9,214	100 %	$10,140	100 %
Cost of revenues	9,132	99 %	15,078	149 %
Gross profit (loss)	82	1 %	(4,938)	(49)%
Operating expenses:				
Research and development	851	9 %	2,026	20 %
Selling, general and administrative	3,708	40 %	4,767	47 %
Impairment of long-lived assets	—	— %	8,635	85 %
Goodwill impairment	—	— %	55	1 %
Employee termination benefits	—	— %	207	2 %
Gain on disposals of long-lived assets, net	(149)	(2)%	(23)	(0)%
Total operating expenses	4,410	47 %	15,667	155 %
Loss from operations	(4,328)	(46)%	(20,605)	(204)%
Other income (expenses):				
Impairment loss on investments	(352)	(4)%	(597)	(6)%
Equity in loss from unconsolidated entities	(11)	(0)%	(79)	(1)%
Interest expenses, net	(34)	(0)%	(52)	(0)%
Other income, net	594	6 %	85	1 %
Foreign currency transaction gain (loss), net	27	0 %	(56)	(1)%
Total other income (expenses), net	224	2 %	(699)	(7)%
Loss before income taxes	(4,104)	(44)%	(21,304)	(211)%
Income tax expense	—	—	—	—
Net loss	(4,104)	(44)%	(21,304)	(211)%
Less: Net loss attributable to noncontrolling interests	(13)	(0)%	(29)	(0)%
Net loss attributable to SemiLEDs stockholders	$(4,091)	(44)%	$(21,275)	(211)%

Year Ended August 31, 2017 Compared to Year Ended August 31, 2016

Years Ended August 31,					
2017		2016			
$	% of Revenues	$	% of Revenues	Change $	Change %
(in thousands)					

LED chips	$358	4 %	$797	8 %	$(439)	(55)%
LED components	6,738	73 %	7,716	76 %	(978)	(13)%
Lighting products	1,335	14 %	1,466	14 %	(131)	(9)%
Other revenues(1)	783	9 %	161	2 %	622	386 %
Total revenues, net	9,214	100 %	10,140	100 %	(926)	(9)%
Cost of revenues	9,132	99 %	15,078	149 %	(5,946)	(39)%
Gross profit (loss)	$82	1 %	$(4,938)	(49)%	$5,020	(102)%

(1) Other includes primarily revenues attributable to the sale of epitaxial wafers, scraps and raw materials, the provision of services and the lease of manufacturing as well as research and development facilities.

Revenues, net

Our revenues decreased by 9% from $10.1 million for the year ended August 31, 2016 to $9.2 million for the year ended August 31, 2017. The $0.9 million decrease in revenues reflects a $0.4 million decrease in revenues attributable to sales of LED chips, a $1 million decrease in revenues attributable to sales of LED components, and a $0.1 million decrease in revenues attributable to the sales of lighting products, offset in part by a $0.6 million increase in other revenues.

Table of Contents

Revenues attributable to the sales of our LED chips represented 4% and 8% of our revenues for the years ended August 31, 2017 and 2016, respectively. The decrease in revenues attributable to sales of LED chips was the result of a 65% decrease in the volume of LED chips sold, primarily due to our strategic decision to place greater emphasis on the sales of LED components rather than the sales of LED chips.

Revenues attributable to the sales of our LED components represented 73% and 76% of our revenues for the years ended August 31, 2017 and 2016, respectively. The decrease in revenues attributable to sales of LED components was primarily due to lower average selling price for the UV LED product, which we particularly focus on within the niche LED markets. The decrease was also a result of lower volume sold for other LED components product, offset in part by a higher average selling price. We have adopted a strategy to adjust our product mix by exiting certain high volume but low unit selling price product lines in response to the general trend of lower average selling prices for products that have been available in the market for some time and to focus on the profitable products.

Revenues attributable to the sales of lighting products represented 14% of our revenues for both the years ended August 31, 2017 and 2016. The decrease in revenues attributable to the sales of lighting products was due to a slowdown in demand on LED luminaries and retrofits and fewer non-recurring project-based orders for LED lighting products.

The increase in other revenues was primarily due to an increase in the lease of manufacturing as well as research and development facilities for the year ended August 31, 2017.

Cost of Revenues

Our cost of revenues decreased by 39% from $15.1 million for the year ended August 31, 2016 to $9.1 million for the year ended August 31, 2017. The decrease in cost of revenues was primarily due to the effect of our ongoing cost reduction efforts, a decrease in volume sold and decreases in depreciation expenses and idle capacity charges associated with property, plant and equipment. Inventory write downs totaled $1.5 million for both the years ended August 31, 2017 and 2016. A majority of our inventory write downs during the years ended August 31, 2017 and 2016 was related to finished goods and work in process, primarily as a result of obsolescence.

Gross Profit (Loss)

Our gross loss decreased from a loss of $4.9 million for the year ended August 31, 2016 to a profit of $82 thousand for the year ended August 31, 2017. Our gross margin percentage was 1% for the year ended August 31, 2017, as compared to negative 49% for the year ended August 31, 2016 as a consequence of the reduction in cost of revenues, as more fully described above.

Operating Expenses

	Years Ended August 31,	
	2017	2016

	$ (in thousands)	% of Revenues	$	% of Revenues	Change $	Change %
Research and development	$851	9 %	$2,026	20 %	$(1,175)	(58)%
Selling, general and administrative	3,708	40 %	4,767	47 %	(1,059)	(22)%
Impairment of long-lived assets	—	— %	8,635	85 %	(8,635)	(100)%
Goodwill impairment	—	— %	55	1 %	(55)	(100)%
Employee termination benefits	—	— %	207	2 %	(207)	(100)%
Gain on disposals of long-lived assets, net	(149)	(2)%	(23)	(0)%	(126)	548 %
Total operating expenses	$4,410	47 %	$15,667	155 %	$(11,257)	(72)%

Research and development. Our research and development expenses decreased from $2.0 million for the year ended August 31, 2016 to $0.9 million for the year ended August 31, 2017. The decrease was primarily due to a $0.2 million decrease in payroll expense and other operating expenses as a result of lower headcount, a $0.6 million decrease in materials and supplies used in research and development, and a $0.3 million decrease in depreciation and amortization expense.

Selling, general and administrative. Our selling, general and administrative expenses decreased from $4.8 million for the year ended August 31, 2016 to $3.7 million for the year ended August 31, 2017. The decrease was mainly attributable to a $0.6 million decrease in payroll and stock based compensation, a $0.2 million decrease in professional service expenses, mainly legal and advisory services and decreases in various other expenses including depreciation and amortization, travel related expenses, rent and advertisement of $0.3 million. We have started and will continue to realize the benefits of operating cost reduction actions, such as savings on lease and lower payroll expenses due to workforce reductions and normal attrition, and improvement in operational efficiencies through the consolidation of facilities.

Table of Contents

Impairment of long-lived assets. We recognized an $8.6 million impairment charge for the year ended August 31, 2016, which consisted of a $7.4 million charge on our property, plant and equipment, and a $1.2 million charge on the intangible assets. The impairment charges on our property, plant and equipment of $7.4 million for the year ended August 31, 2016, were primarily related to machinery and equipment used in the manufacturing of LED epitaxial wafers and chips. The charges stemmed primarily from significant revenue declines and negative gross margins. The impairment charge of $1.2 million for the year ended August 31, 2016 on the intangible assets, which consist primarily of patents, trademarks and acquired technology stemmed primarily from our updated long-term financial forecasts that reflected a lower estimated near-term and longer-term revenues and profitability compared to estimates developed from prior years. These charges are more fully described in Note 3 in the Notes to Consolidated Financial Statements in Item 8, Financial Statements and Supplementary Data, of this Annual Report.

Employee termination benefits. Employee termination benefits of $207 thousand were recognized for severance-related expenses for workforce reductions with respect to our restructuring plan on chips manufacturing operation for the year ended August 31, 2016.

Gain on disposal of long lived asset, net. We recognized a gain of $149 thousand and $23 thousand, net on the disposal of long-lived assets for the years ended August 31, 2017 and 2016, respectively. Primarily due to the excess capacity charges that we have suffered for a few years, considering the risk of technological obsolescence and according to the production plan built based on our sales forecast, we disposed of a certain level of our idle equipment.

Other Income (Expenses)

	Years Ended August 31,			
	2017		2016	
	$	% of Revenues	$	% of Revenues
	(in thousands)			
Impairment loss on investments	$(352)	(4)%	$(597)	(6)%
Equity in loss from unconsolidated entities	(11)	(0)%	(79)	(1)%
Interest expenses, net	(34)	(0)%	(52)	(0)%
Other income, net	594	6%	85	1%
Foreign currency transaction gain (loss), net	27	0%	(56)	(1)%
Total other income (expenses), net	$224	2%	$(699)	(7)%

Impairment loss on investment.

We recognized an other-than-temporary impairment loss of $352 thousand on our cost method investment in Intematix for the year ended August 31, 2017 based on the excess of the carrying amount over the estimated recoverable value. The recoverable value of the investment was determined based on our best estimate of the amount that could be realized from the investment, which considered the latest financial information.

We recognized an other-than-temporary impairment loss of $317 thousand and $280 thousand on our cost method investments in LumenMax and Nanoteco respectively for the year ended August 31, 2016 based on the excess of the carrying amount over the estimated recoverable value. The recoverable value of the investment was determined based on our best estimate of the amount that could be realized from the investment, which considered the latest financial report and the investee’s plan of liquidation proposed in September 2016.

Equity in loss from unconsolidated entities.

We sold all of our equity interest in SILQ and Nanoteco in November 2016 and February 2017 and recognized a loss on sale of investment of $9 thousand and $2 thousand for the years ended August 31, 2017, respectively.

We recognized net loss from our portion of the net loss from SILQ, an unconsolidated entity. We also recognized additional loss to reduce the carrying amount of our investment in SILQ to our proportionate share of the net realizable value reported by SILQ for the year ended August 31, 2016.

Interest expenses, net. The decrease in interest expenses, net was primarily due to the decrease in debt balance because of the repayment of debt.

Other income, net. Other income, net increased for the year ended August 31, 2017 as compared to the year ended August 31, 2016, primarily due to the favorable settlement of a lawsuit.

Table of Contents

Foreign currency transaction gain (loss), net. We recognized a net foreign currency transaction gain of $27 thousand for the year ended August 31, 2017, primarily due to the appreciation of the NT dollar against the U.S. dollar from expenses payables held by Taiwan SemiLEDs in currency other than the functional currency of the subsidiary, as compared to a net foreign currency transaction loss of $56 thousand for the year ended August 31, 2016, primarily due to the depreciation of the U.S. dollar against the NT dollar from bank deposits and accounts receivables held by Taiwan SemiLEDs and Taiwan Bandaoti Zhaoming Co., Ltd. in currency other than the functional currency of such subsidiaries.

Income Tax Expense (Benefit)

We did not recognize any income tax expense for both the year ended August 31, 2017 and 2016, because although we incurred losses before income tax for most of our subsidiaries for the fiscal year, we provided a full valuation allowance on all deferred tax assets.

As of August 31, 2017 and 2016, we recognized full valuation allowances of $44.4 million and $43.4 million, respectively, on our net deferred tax assets to reflect uncertainties related to our ability to utilize these deferred tax assets, which consist primarily of certain net operating loss carryforwards and foreign investment loss. We considered both positive and negative evidence, including forecasts of future taxable income and our cumulative loss position, and continued to report a full valuation allowance against our deferred tax assets as of both August 31, 2017 and 2016. We continue to review all available positive and negative evidence in each jurisdiction and our valuation allowance may need to be adjusted in the future as a result of this ongoing review. Given the magnitude of our valuation allowance, future adjustments to this allowance based on actual results could result in a significant adjustment to our results of operations.

As of August 31, 2017, we had U.S. federal net operating loss carryforwards of $12.5 million, which will expire in various amounts beginning in our fiscal 2025. Utilization of these net operating losses carryforwards may be subject to an annual limitation due to applicable provisions of the Internal Revenue Code of 1986, as amended, and local tax laws if we have experienced an “ownership change” in the past, or if an ownership change occurs in the future.

As of August 31, 2017, we had total foreign net operating loss carryforwards of $107.8 million, arising primarily from certain of our consolidated and majority owned subsidiaries in Taiwan. Pursuant to the Taiwan Income Tax Act, as amended in January 2009, net operating losses carryforwards can be carried forward for a period of ten years.

Net Loss Attributable to Noncontrolling Interests

	Years Ended August 31,			
	2017		2016	
	$	% of Revenues	$	% of Revenues
	(in thousands)			
Net loss attributable to noncontrolling interests	$(13)	(0)%	$(29)	(0)%

We recognized net losses attributable to noncontrolling interests of $13 thousand and $29 thousand for the years ended August 31, 2017 and 2016, respectively, which was attributable to the share of the net losses of Ning Xiang held by the remaining noncontrolling holders. Noncontrolling interests represented a 49% equity interest in Ning Xiang since the date of acquisition, reduced to 34% beginning in April 2013, reduced to 13% beginning in November 2013, and further reduced to 7% beginning in December 2014. On March 1, 2017, the 93% equity interest subsidiary, Ning Xiang was dissolved. The assets, liabilities and certain employees of Ning Xiang were merged into its holding company, Taiwan Bandaoti Zhaoming Co., Ltd. An amount of $46 thousand was paid for the acquisition of the Ning Xiang non-controlling interests. As a result of this payment, non-controlling interest in the Company was reduced to zero.

Liquidity and Capital Resources

As of August 31, 2017 and 2016, we had cash and cash equivalents of $3.6 million and $6.0 million, respectively, which were predominately held in U.S. dollar denominated demand deposits and/or money market funds.

As of November 13, 2017, we had no available credit facility.

Table of Contents

Our long-term debt, which consisted of NT dollar denominated long-term notes, totaled $2.7 million and $2.9 million as of August 31, 2017 and 2016, respectively. These long-term notes carry an interest rates of 1.62%, based on the annual time deposit rate plus a specific spread, as of both August 31, 2017 and 2016, are payable in monthly installments, and are secured by our property, plant and equipment. These long-term notes do not have prepayment penalties or balloon payments upon maturity.

- The first note payable requires monthly payments of principal and interest in the amount of $13 thousand over the 15 year term of the note with final payment to occur in May 2024 and, as of August 31, 2017, our outstanding balance on this note payable was approximately $1 million.
- The second note payable requires monthly payments of principal and interest in the amount of $18 thousand over the 15-year term of the note with final payment to occur in December 2025 and, as of August 31, 2017, our outstanding balance on this note payable was approximately $1.7 million.

Property, plant and equipment pledged as collateral for our notes payable were $4.6 million and $4.7 million as of August 31, 2017 and 2016, respectively.

We have incurred significant losses since inception, including net losses attributable to SemiLEDs stockholders of $4.1 million and $21.3 million during the years ended August 31, 2017 and 2016, respectively. Net cash used in operating activities for the year ended August 31, 2017 was $2.1 million. As of August 31, 2017, we had cash and cash equivalents of $3.6 million. We have undertaken actions to decrease losses incurred and implemented cost reduction programs in an effort to transform the Company into a profitable operation.

Based on our current financial projections and assuming the successful implementation of our liquidity plans, we believe that we will have sufficient sources of liquidity to fund our operations and capital expenditure plans for the next 12 months. However, there can be no assurances that our planned activities will be successful in reducing losses and preserving cash. If we are not able to generate positive cash flows from operations, we may need to consider alternative financing sources and seek additional funds through public or private equity financings or from other sources, or refinance our indebtedness, to support our working capital requirements or for other purposes. There can be no assurance that additional debt or equity financing will be available to us or that, if available, such financing will be available on terms favorable to us. Please see “Critical Accounting Policies and Estimates— Basis of Presentation—Going Concern” for more information on our liquidity plans.

Cash Flows

The following summary of our cash flows for the periods indicated has been derived from our consolidated financial statements, which are included elsewhere in this Annual Report on Form 10 K (in thousands):

	Years Ended August 31,	
	2017	2016
Net cash used in operating activities	$(2,109)	$(3,439)
Net cash provided by (used in) investing activities	$31	$(535)

Net cash provided by (used in) financing activities	$(369)	$5,320

Cash Flows Used in Operating Activities

Net cash used in operating activities for the years ended August 31, 2017 and 2016 was $2.1 million and $3.4 million, respectively. Cash used in operating activities for the year ended August 31, 2017 was $1.3 million lower, primary attributable to the decrease in cash used to pay for salary-related expenses due to the reduction of employees engaged in manufacturing activities as we restructured our manufacturing operations and normal attrition. In addition, a decrease in cash used to pay for materials and supplies used in production and research and development reflecting the effect of cost reduction. These decreases in cash used in operating activities were offset in part by a decrease in cash collected from customers primarily as a result of lower sales.

Cash Flows Provided By (Used In) Investing Activities

Net cash provided by investing activities for the year ended August 31, 2017 was $31 thousand, consisting primarily of the proceeds from the sales of property, plant and equipment and the sale of investments in SILQ and Nanoteco, offset in part by the purchases of machinery and equipment.

Net cash used in investing activities for the year ended August 31, 2016 was $0.5 million, consisting primarily of the purchases of $0.8 million in property, plant and equipment representing primarily the purchases of machinery and equipment and payments for the build out of our manufacturing facility and leasehold improvements. These were offset in part by a $0.3 million in proceeds from the sale of machinery and equipment.

Table of Contents

Cash Flows Provided by (Used in) Financing Activities

Net cash used in financing activities for the year ended August 31, 2017 was $0.4 million, primarily attributable to the repayments on long-term debt and the payment for the acquisition of noncontrolling interests.

Net cash provided by financing activities for the year ended August 31, 2016 was $5.3 million, consisting of the receipt of the $3.0 million initial installment of cash consideration for the potential sale of our headquarters building, $0.5 million advance receipt toward the convertible note and $2.9 million proceeds from issuance of common stock, offset in part by repayments on long-term debt of $1.1 million.

Capital Expenditures

We had capital expenditures of $0.2 million and $0.8 million for the years ended August 31, 2017 and 2016, respectively. Our capital expenditures consisted primarily of the purchases of machinery and equipment, construction in progress, prepayments for our manufacturing facilities and prepayments for equipment purchases. We expect to continue investing in capital expenditures in the future as we expand our business operations and invest in such expansion of our production capacity as we deem appropriate under market conditions and customer demand. However, in response to controlling capital costs and maintaining financial flexibility, our management continues to monitor prices and, consistent with its existing contractual commitments, may decrease its activity level and capital expenditures as appropriate.

Off Balance Sheet Arrangements

As of August 31, 2017, we did not engage in any off balance sheet arrangements. We do not have any interests in variable interest entities.

Accounting Pronouncements Not Yet Adopted

In May 2017, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2017-09, Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting. The guidance provides clarity and reduces diversity in practice and cost and complexity when accounting for a change to the terms or conditions of a share-based payment award. This standard will be effective for the Company on September 1, 2018. We are currently evaluating the impact the adoption of this ASU will have on our consolidated financial statements.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments. This standard requires a financial asset (or group of financial assets) measured at amortized cost basis to be presented at the net amount expected to be collected. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial asset(s) to present the net carrying value at the amount expected to be collected on the financial asset. This standard will be effective for the Company on September 1, 2020. We are currently evaluating the impact the adoption of this ASU will have on our consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which is intended to improve financial reporting on leasing transactions. This standard requires a lessee to record on the balance sheet the assets and liabilities for the rights and obligations created by lease terms of more than 12 months. This standard will be effective for the Company on September 1, 2019. We are currently evaluating the impact the adoption of this ASU will have on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, “Revenue from Contracts with Customers,” which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue recognition guidance in U.S. GAAP when it becomes effective. The FASB has subsequently issued multiple ASUs which amend and clarify the guidance. This standard will be effective for the Company on September 1, 2018. The standard permits the use of either the full retrospective method applying the standard to each prior reporting period presented, or the modified retrospective method with a cumulative effect of initially applying the guidance recognized at the date of initial application. Management has been evaluating the effect that ASU 2014-09 will have on the Company’s consolidated financial statements and related disclosures and expects to use the modified retrospective method. We are currently evaluating the likely impact the implementation of this standard will have on our financial statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Not applicable.

Table of Contents

Item 8. Financial Statements and Supplementary Data

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of SemiLEDs Corporation:

We have audited the accompanying consolidated balance sheet of SemiLEDs Corporation and its subsidiaries (the “Company”) as of August 31, 2017, and the related consolidated statements of operations, comprehensive loss, changes in equity, and cash flows for the year then ended. In connection with our audit of the consolidated financial statements, we also have audited the accompanying consolidated financial statement schedule II. These consolidated financial statements and financial statement schedule are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide 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 SemiLEDs Corporation and its subsidiaries as of August 31, 2017, and the results of their operations and their cash flows for the year then ended, in conformity with generally accepted accounting principles in the United States of America. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

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 audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the Company's internal control over financial reporting. Accordingly, we express no such opinion.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company has suffered recurring losses from operations, has not generated sufficient net cash flows from operating activities and has an accumulated deficit that raise substantial doubt about its ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 2. The consolidated financial statements and financial statement schedule do not include any adjustments that might result from the outcome of this uncertainty.

/s/ B F Borgers CPA PC

Lakewood, Colorado

November 29, 2017

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders

SemiLEDs Corporation:

We have audited the accompanying consolidated balance sheet of SemiLEDs Corporation and subsidiaries (the "Company") as of August 31, 2016, and the related consolidated statements of operations, comprehensive loss, changes in equity, and cash flows for the year then ended. In connection with our audit of the consolidated financial statements, we also have audited the accompanying consolidated financial statement schedule II as it pertains to the year ended August 31, 2016. These consolidated financial statements and financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 SemiLEDs Corporation and subsidiaries as of August 31, 2016, and the results of their operations and their cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule for the year ended August 31, 2016, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

The accompanying August 31, 2016 consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in note 2 to the consolidated financial statements, the Company has suffered recurring losses from operations, has not generated sufficient net cash flows from operating activities and has an accumulated deficit that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in note 2. The consolidated financial statements and financial statement schedule do not include any adjustments that might result from the outcome of this uncertainty.

/s/ KPMG

Taipei, Taiwan (the Republic of China)

November 21, 2016

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands of U.S. dollars and shares, except par value)

	August 31, 2017	2016
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$3,582	$6,030
Accounts receivable (including related parties), net of allowance for doubtful accounts of $815 and $746 as of August 31, 2017 and August 31, 2016, respectively	1,111	900
Inventories	2,946	4,067
Prepaid expenses and other current assets	405	640
Total current assets	8,044	11,637
Property, plant and equipment, net	8,275	8,813
Intangible assets, net	104	44
Investments in unconsolidated entities	992	1,368
Other assets	255	373
TOTAL ASSETS	$17,670	$22,235
LIABILITIES AND EQUITY		
CURRENT LIABILITIES:		
Current installments of long-term debt	$335	$314
Accounts payable	1,145	1,326
Advance receipt toward the convertible note	500	500
Accrued expenses and other current liabilities	5,482	2,761
Total current liabilities	7,462	4,901
Long-term debt, excluding current installments	2,391	2,595
Other liability	—	3,097
Total liabilities	9,853	10,593
Commitments and contingencies (Note 6)		
EQUITY:		
SemiLEDs stockholders’ equity		
Common stock, $0.0000056 par value—75,000 shares authorized; 3,544 shares and 3,517 shares issued and outstanding as of August 31, 2017 and August 31, 2016, respectively	—	—
Additional paid-in capital	175,386	175,384
Accumulated other comprehensive income	3,701	3,398
Accumulated deficit	(171,270)	(167,179)

Total SemiLEDs stockholders’ equity	7,817	11,603
Noncontrolling interests	—	39
Total equity	7,817	11,642
TOTAL LIABILITIES AND EQUITY	$17,670	$22,235

See notes to consolidated financial statements.

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands of U.S. dollars and shares, except per share data)

	Years Ended August 31, 2017	2016
Revenues, net	$9,214	$10,140
Cost of revenues	9,132	15,078
Gross profit (loss)	82	(4,938)
Operating expenses:		
Research and development	851	2,026
Selling, general and administrative	3,708	4,767
Impairment of long-lived assets	—	8,635
Goodwill impairment	—	55
Employee termination benefits	—	207
Gain on disposals of long-lived assets, net	(149)	(23)
Total operating expenses	4,410	15,667
Loss from operations	(4,328)	(20,605)
Other income (expenses):		
Impairment loss on investments	(352)	(597)
Equity in loss from unconsolidated entities	(11)	(79)
Interest expenses, net	(34)	(52)
Other income, net	594	85
Foreign currency transaction gain (loss), net	27	(56)
Total other income (expenses), net	224	(699)
Loss before income taxes	(4,104)	(21,304)
Income tax expense	—	—
Net loss	(4,104)	(21,304)
Less: Net loss attributable to noncontrolling interests	(13)	(29)
Net loss attributable to SemiLEDs stockholders	$(4,091)	$(21,275)
Net loss per share attributable to SemiLEDs stockholders:		
Basic and diluted	$(1.16)	$(7.25)
Shares used in computing net loss per share attributable to SemiLEDs stockholders:		
Basic and diluted	3,544	2,934

See notes to consolidated financial statements.

46

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands of U.S. dollars)

	Years Ended August 31, 2017	2016
Net loss	$(4,104)	$(21,304)
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustments, net of tax of $0 for both periods	300	313
Comprehensive loss	$(3,804)	$(20,991)
Comprehensive loss attributable to noncontrolling interests	$(16)	$(31)
Comprehensive loss attributable to SemiLEDs stockholders	$(3,788)	$(20,960)

See notes to consolidated financial statements.

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of U.S. dollars and shares)

	Common Shares	Stock Amount	Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total SemiLEDs Stockholders' Equity	Non-Controlling Interests	Total Equity
BALANCE—September 1, 2015	2,905	$ —	$ 172,117	$ 3,083	$ (145,904)	$ 29,296	$ 70	$ 29,366
Issuance of common stock for private placement	577	—	2,885	—	—	2,885	—	2,885
Issuance of common stock under equity incentive plans	35	—	—	—	—	—	—	—
Stock-based compensation	—	—	382	—	—	382	—	382
Comprehensive income (loss):								
Other comprehensive income (loss)	—	—	—	315	—	315	(2)	313
Net loss	—	—	—	—	(21,275)	(21,275)	(29)	(21,304)
BALANCE—August 31, 2016	3,517	$ —	$ 175,384	$ 3,398	$ (167,179)	$ 11,603	$ 39	$ 11,642
Issuance of common stock under equity incentive plans	27	—	—	—	—	—	—	—
Stock-based compensation	—	—	25	—	—	25	—	25
Purchase of common shares in Ning Xiang from noncontrolling interests	—	—	(23)	—	—	(23)	(23)	(46)
Comprehensive income (loss):								
Other comprehensive income (loss)	—	—	—	303	—	303	(3)	300
Net loss	—	—	—	—	(4,091)	(4,091)	(13)	(4,104)
BALANCE—August 31, 2017	3,544	$ —	$ 175,386	$ 3,701	$ (171,270)	$ 7,817	$ —	$ 7,817

See notes to consolidated financial statements.

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands of U.S. dollars)

	Years Ended August 31, 2017	2016
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$(4,104)	$(21,304)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,096	5,526
Goodwill impairment	—	55
Impairment of long-lived assets	—	8,635
Impairment loss on investments	352	597
Stock-based compensation expense	25	382
Bad debt expense	42	125
Provisions for inventory write-downs	1,506	1,542
Equity in loss from unconsolidated entities	11	79
Gain on disposals of long-lived assets, net	(149)	(23)
Changes in :		
Accounts receivable, net	(202)	1,042
Inventories	(205)	380
Prepaid expenses and other	351	281
Accounts payable	(191)	(85)
Accrued expenses and other current liabilities	(641)	(671)
Net cash used in operating activities	(2,109)	(3,439)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of property, plant and equipment	(150)	(821)
Proceeds from sales of property, plant and equipment	149	357
Payments for development of intangible assets	(25)	(54)
Proceeds from sale of investment	59	—
Other investing activities	(2)	(17)
Net cash provided by (used in) investing activities	31	(535)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock	—	2,885
Repayments of long-term debt	(323)	(1,065)
Acquisition of noncontrolling interests	(46)	—
Other financing activities	—	3,500
Net cash provided by (used in) financing activities	(369)	5,320

Effect of exchange rate changes on cash and cash equivalents	(1)	(124)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(2,448)	1,222
CASH AND CASH EQUIVALENTS—Beginning of year	6,030	4,808
CASH AND CASH EQUIVALENTS—End of year	$3,582	$6,030
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION:		
Cash paid for interest	$47	$60
Cash paid for income taxes	$3	$3
NONCASH INVESTING AND FINANCING ACTIVITIES:		
Accrual related to property, plant and equipment	$217	$257

See notes to consolidated financial statements.

Table of Contents

SEMILEDS CORPORATION AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended August 31, 2017 and 2016

1. BUSINESS

SemiLEDs Corporation ("SemiLEDs" or the "parent company") was incorporated in Delaware on January 4, 2005 and is a holding company for various wholly owned subsidiaries. SemiLEDs and its subsidiaries (collectively, the "Company") develop, manufacture and sell high performance light emitting diodes ("LEDs"). The Company's core products are LED components, as well as LED chips and lighting products. LED components have become the most important part of its business. A portion of the Company's business consists of the sale of contract manufactured LED products. The Company's customers are concentrated in a few select markets, including Taiwan, the United States and China.

As of August 31, 2017, SemiLEDs had five wholly owned subsidiaries. SemiLEDs Optoelectronics Co., Ltd., or Taiwan SemiLEDs, is the Company's wholly owned operating subsidiary, where a substantial portion of the assets is held and located, and where a portion of research, development, manufacturing and sales activities take place. Taiwan SemiLEDs owns a 100% equity interest in Taiwan Bandaoti Zhaoming Co., Ltd., formerly known as Silicon Base Development, Inc., which is engaged in the research, development, manufacturing and a substantial portion of marketing and sale of LED components, and where most of the Company's employees are based.

SemiLEDs' common stock began trading on the NASDAQ Global Select Market under the symbol "LEDS" on December 8, 2010 and was transferred to the NASDAQ Capital Market effective November 5, 2015 where it continues to trade under the same symbol.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation —The Company's consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP").

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The realization of assets and the satisfaction of liabilities in the normal course of business are dependent on, among other things, the Company's ability to operate profitably, to generate cash flows from operations, and to pursue financing arrangements to support its working capital requirements.

The Company has suffered losses from operations of $4.3 million, $20.6 million and $13.3 million, and used net cash in operating activities of $2.1 million, $3.4 million and $4.5 million for the years ended August 31, 2017, 2016 and 2015, respectively. Gross profit on product sales was $82 thousand for the year ended August 31, 2017 and gross loss was $4.9 million for the year ended August 31, 2016. Further, at August 31, 2017, the Company's cash and cash equivalents was down to $3.6 million. These facts and conditions raise substantial doubt about the Company's ability to continue as a going concern. However, management believes that it has developed a liquidity plan, as summarized below, that, if executed successfully, should provide sufficient liquidity to meet the Company's obligations as they become due for a reasonable period of time, and allow the development of its core business.

- The Company entered into an agreement in December 2015 with a strategic partner for the potential sale of the headquarters building located at Miao-Li, Taiwan. The total cash consideration for the sale is \$5.2 million, of which the initial installment of \$3 million was received on December 14, 2015, \$1 million was due on December 31, 2016 and the balance of \$1.2 million is due on December 31, 2017. As of August 31, 2017, the Company hasn't received the \$1 million due on December 31, 2016. Both parties are in discussions regarding applying the \$3 million deposit as partial consideration for the strategic partner to purchase a portion of the equity of one of the Company's subsidiaries and intend to amend the agreement for the sale of the headquarters. However, the investment is subject to the negotiation of a definitive agreement and the approval of the strategic partner's investment committee.
- The Company is suppressing the gross loss from chip sales by moving toward a fabless business model through an agreement with an ODM partner entered into on December 31, 2015. The Company is continuously restructuring its chips manufacturing operation. The Company expects to purchase chips from the strategic partner and follow the best process to combine the Company's technology with the strategic partner's production process.
- Expects the effects to be continued and further reduce idle capacity charges. This partnership should help the Company obtain a steady source of LED chips with competitive and favorable price for its packaging business, expand the production capacity for LED components, and strengthen its product portfolio and technology.
- Increasing sales of Automotive Projects in both China and India by cultivating relationships with automotive lighting developers that are outside the Company's historical distribution channels. Maintaining the number of display models at automotive lighting facilities in order to provide dealers, communities and consumers with examples of newly designed product.

Table of Contents

- Gaining positive cash-inflow from operating activities through continuous cost reductions and the sales of new higher margin products. Steady growth of module product and the continued commercial sales of its UV LED product are expected to improve the Company’s future gross margin, operating results and cash flows. The Company is targeting niche markets and focused on product enhancement and developing its LED product into many other applications or devices.
- Continuing to monitor prices, work with current and potential vendors to decrease costs and, consistent with its existing contractual commitments, may possibly decrease its activity level and capital expenditures further. This plan reflects its strategy of controlling capital costs and maintaining financial flexibility.
- Raising additional cash through further equity offerings, sales of assets and/or issuance of debt as considered necessary and looking at other potential business opportunities.

While the Company's management believes that the measures described in the above liquidity plan will be adequate to satisfy its liquidity requirements for the twelve months after the date that the financial statements are issued, there is no assurance that the liquidity plan will be successfully implemented. Failure to successfully implement the liquidity plan may have a material adverse effect on its business, results of operations and financial position, and may adversely affect its ability to continue as a going concern. These consolidated financial statements and financial statement schedule do not include any adjustments related to the recoverability and classification of recorded assets or the amounts and classification of liabilities or any other adjustments that might be necessary should the Company be unable to continue as a going concern.

Principles of Consolidation —The consolidated financial statements include the accounts of SemiLEDs and its consolidated subsidiaries. All intercompany transactions and balances have been eliminated during consolidation.

Investments in which the Company has the ability to exercise significant influence over the investee but not a controlling financial interest, are accounted for using the equity method of accounting and are not consolidated. These investments are in joint ventures that are not subject to consolidation under the variable interest model, and for which the Company: (i) does not have a majority voting interest that would allow it to control the investee, or (ii) has a majority voting interest but for which other shareholders have significant participating rights, but for which the Company has the ability to exercise significant influence over operating and financial policies. Under the equity method, investments are stated at cost after adding or removing the Company’s portion of equity in undistributed earnings or losses, respectively. The Company’s investment in these equity method entities is reported in the consolidated balance sheets in investments in unconsolidated entities, and the Company’s share of the income or loss of these equity method entities, after the elimination of unrealized intercompany profits, is reported in the consolidated statements of operations in equity in losses from unconsolidated entities. When net losses from an equity method investee exceed its carrying amount, the carrying amount of the investment is reduced to zero. The Company then suspends using the equity method to provide for additional losses unless the Company has guaranteed obligations or is otherwise committed to provide further financial support to the equity method investee. The Company resumes accounting for the investment under the equity method if the investee subsequently returns to profitability and the Company’s share of the investee’s income exceeds its share of the cumulative losses that have not been previously recognized during the period the equity method is suspended.

Investments in entities that are not consolidated or accounted for under the equity method are accounted for using the cost method. Under the cost method, investments are reported at cost on the consolidated balance sheets in investments in unconsolidated entities, and dividend income, if any, received is reported in the consolidated statements of operations in equity in losses from unconsolidated entities.

If the fair value of an equity method or cost method investment declines below its respective carrying amount and the decline is determined to be other than temporary, the investment will be written down to its fair value.

Use of Estimates— The preparation of consolidated financial statements in conformity with U.S. GAAP 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 consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the preparation of the Company's consolidated financial statements on the basis that the Company will continue as a going concern, the collectibility of accounts receivable, inventory net realizable values, realization of deferred tax assets, valuation of stock based compensation expense, the useful lives of property, plant and equipment and intangible assets, the recoverability of the carrying amount of property, plant and equipment, intangible assets and investments in unconsolidated entities, the fair value of acquired tangible and intangible assets, income tax uncertainties, provision for potential litigation costs and other contingencies. Management bases its estimates on historical experience and also on assumptions that it believes are reasonable. Management assesses these estimates on a regular basis; however, actual results could differ materially from those estimates.

Certain Significant Risks and Uncertainties— The Company is subject to certain risks and uncertainties that could have a material and adverse effect on the Company's future financial position or results of operations, which risks and uncertainties include, among others: it has incurred significant losses over the past few years, any inability of the Company to compete in a rapidly evolving market and to respond quickly and effectively to changing market requirements, any inability of the Company to grow its revenue and/or maintain or increase its margins, it may

Table of Contents

experience fluctuations in its revenues and operating results, any inability of the Company to protect its intellectual property rights, claims by others that the Company infringes their proprietary technology, and any inability of the Company to raise additional funds in the future.

Concentration of Supply Risk— Some of the components and technologies used in the Company's products are purchased and licensed from a limited number of sources and some of the Company's products are produced by a limited number of contract manufacturers. The loss of any of these suppliers and contract manufacturers may cause the Company to incur transition costs to another supplier or contract manufacturer, result in delays in the manufacturing and delivery of the Company's products, or cause it to carry excess or obsolete inventory. The Company relies on a limited number of such suppliers and contract manufacturers for the fulfillment of its customer orders. Any failure of such suppliers and contract manufacturers to perform could have an adverse effect upon the Company's reputation and its ability to distribute its products or satisfy customers' orders, which could adversely affect the Company's business, financial position, results of operations and cash flows.

Concentration of Credit Risk— Financial instruments that subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents and accounts receivable.

The Company keeps its cash and cash equivalents in demand deposits with prominent banks of high credit quality and invests only in money market funds. Deposits held with banks may exceed the amount of insurance provided on such deposits. As of August 31, 2017 and 2016, cash and cash equivalents of the Company consisted of the following (in thousands):

	August 31,	
Cash and Cash Equivalents by Location	2017	2016
United States;		
Denominated in U.S. dollars	$109	$945
Taiwan;		
Denominated in U.S. dollars	2,350	3,580
Denominated in New Taiwan dollars	81	738
Denominated in other currencies	646	481
China (including Hong Kong);		
Denominated in U.S. dollars	7	8
Denominated in Renminbi	389	277
Denominated in H.K. dollars	—	1
Total cash and cash equivalents	$3,582	$6,030

The Company's revenues are substantially derived from the sales of LED products. A significant portion of the Company's revenues are derived from a limited number of customers and sales are concentrated in a few select markets. Management performs ongoing credit evaluations of its customers and generally does not require collateral on accounts receivable. Management evaluates the need to establish an allowance for doubtful accounts for estimated potential credit losses at each reporting period. The allowance for doubtful accounts is based on the management's assessment of the collectibility of its customer accounts. Management regularly reviews the allowance by considering certain factors, such as historical experience, industry data, credit quality, age of accounts receivable balances and current economic conditions that may affect a customer's ability to pay.

Customers that accounted for 10% or more of the Company's total net accounts receivable as of August 31, 2017 and 2016 consist of the following:

	August 31,	
Customers	2017	2016
Customer A	53 %	37 %
Customer B	5 %	24 %
Customer C	24 %	— %

The customers accounted for 10% or more of the Company's total net revenues for the years ended August 31, 2017 and 2016, as follows (in thousands, except percentages):

	Years Ended August 31,			
	2017		2016	
Customers	Amount	% of Revenues	Amount	% of Revenues
Customer A	$3,430	36 %	$2,334	23 %
Customer D	—	— %	1,100	11 %

Table of Contents

Cash and Cash Equivalents—The Company considers all highly liquid investment instruments purchased with initial maturities of three months or less to be cash equivalents.

As of August 31, 2017 and 2016, cash and cash equivalents of the Company consist of the following (in thousands):

	August 31,	
Cash and Cash Equivalents	2017	2016
Cash;		
Cash and demand deposits	$3,564	$6,013
Cash equivalents;		
Money market funds	18	17
Total cash and cash equivalents	$3,582	$6,030

Foreign Currency— The Company's subsidiaries use the local currency as their functional currency. The assets and liabilities of the subsidiaries are, therefore, translated into U.S. dollars at exchange rates in effect at each balance sheet date, with the resulting translation adjustments recorded to a separate component of accumulated other comprehensive income (loss) within equity. Income and expense accounts are translated at average exchange rates during the period. Any gains and losses from transactions denominated in foreign currencies are recognized in the consolidated statements of operations as a separate component of other income (expense).

Inventories— Inventories consist of raw materials, work in process and finished goods and are stated at the lower of cost or market. Cost is determined using a weighted average. For work in process and manufactured inventories, cost consists of raw materials, direct labor and an allocated portion of the Company's production overhead. The Company writes down excess and obsolete inventory to its estimated net realizable value based upon assumptions about future demand and market conditions. For finished goods and work in process, if the estimated net realizable value for an inventory item, which is the estimated selling price in the ordinary course of business, less reasonably predicable costs to completion and disposal, is lower than its cost, the specific inventory item is written down to its estimated net realizable value. Market for raw materials is based on replacement cost. Provisions for inventory write downs are included in cost of revenues in the consolidated statements of operations. Once written down, inventories are carried at this lower cost basis until sold or scrapped.

Property, Plant and Equipment— Property, plant and equipment are stated at cost less accumulated depreciation, amortization and impairment. Depreciation on property, plant and equipment is calculated using the straight line method over the estimated useful lives, less estimated salvage values of the assets. Leasehold improvements are amortized using the straight line method over the shorter of the lease term or estimated useful life of the asset.

The estimated useful lives of property, plant and equipment are as follows:

Buildings and improvements	5 to 20 years
Machinery and equipment	1 to 10 years
Leasehold improvements	2 to 15 years
Other equipment	2 to 6 years

Major Maintenance Activities— The Company incurs maintenance costs on its major equipment. Repair and maintenance costs are expensed as incurred.

Intangible Assets— Intangible assets consist of patents, trademarks and acquired technology. Intangible assets are initially recognized at their respective acquisition costs. All of the Company's intangible assets have been determined to have finite useful lives and are, therefore, amortized using the straight line method over their estimated useful lives:

Patents and trademarks	5 to 25	years
Acquired technology	5	years

Impairment of Long Lived Assets— Management evaluates the Company's long lived assets, excluding goodwill, that consist of property, plant and equipment and intangible assets, for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Impairment exists if the carrying amounts of such assets exceed the estimates of future net undiscounted cash flows expected to be generated by such assets. Should impairment exist, the impairment loss would be measured based on the excess carrying amount of the asset over the estimated fair value of the asset. Fair value is determined through various valuation techniques, including discounted cash flow models, quoted market values and third party independent appraisers, as considered necessary.

Table of Contents

During the year ended August 31, 2016, the Company recognized total impairment charges of $8,635 thousand of which $7,433 thousand pertained to property, plant and equipment and $1,202 thousand pertained to intangible assets, see Notes 3 and 13 for further details. No impairment charge was recognized in the year ended August 31, 2017.

Recovery of Investments in Unconsolidated Entities —Management evaluates the recoverability of the carrying amount of the Company's equity investments accounted for using the equity method and cost method when there is an indication of potential impairment. If the estimated realizable value of an equity investment falls below its carrying amount and management determines that this shortfall is other than temporary, the carrying amount of such investment is written down to its estimated realizable value. In determining whether a decline in value is other than temporary, management considers the length of time and the extent to which such value has been less than the carrying amount, the financial condition and prospects of the investee, and the Company's ability and intent to retain the equity investment for a period of time sufficient to allow for any anticipated recovery in value.

During the year ended August 31, 2017 and 2016, the Company recognized an other-than-temporary impairment loss of $352 thousand and $597 thousand, respectively, on its investments. See Note 4 for further details.

Income Taxes —The Company accounts for income taxes under the asset and liability method. As part of the process of preparing the consolidated financial statements, the Company estimates its income taxes in each of the jurisdictions in which it operates. The Company estimates actual current tax expense together with assessing temporary differences resulting from differing accounting treatment for items such as accruals and allowances that are not currently deductible for tax purposes. These differences result in deferred tax assets and liabilities which are included in the Company's consolidated balance sheets. In general, deferred tax assets represent future tax benefits to be received when certain expenses previously recognized in the Company's consolidated statements of operations become deductible expenses under applicable income tax laws or when operating loss or tax credit carryforwards are utilized. Accordingly, realization of the deferred tax assets is dependent on the Company's ability to earn future taxable income against which these deductions, losses and credits can be utilized. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applicable to the taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of a change in tax rates on the Company's deferred tax assets and liabilities is recognized in the consolidated statements of operations in the period the change in the tax law was enacted.

Management assesses the likelihood that the Company's deferred tax assets will be recovered from future taxable income and, to the extent management believes that recovery is not more likely than not, a valuation allowance is established. The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50 percent likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest and penalties, if any, related to unrecognized tax benefits in income tax expense.

Stock based Compensation —Compensation costs related to employee stock options and restricted stock units are based on the fair value of the options and stock units on the date of grant, net of estimated forfeitures. The Company determines the grant date fair value of the options using the Black Scholes option pricing model. The related stock based compensation expense is generally recognized on a straight line basis over the period in which an employee is required to provide service in exchange for the options and stock units, or the vesting period of the respective options and stock units.

Research and Development Costs —Research and development costs are expensed as incurred. Research and development costs are presented as a separate line item in the consolidated statements of operations.

Advertising Costs —Advertising costs are expensed as incurred. Advertising costs totaled $3 thousand and $22 thousand for the years ended August 31, 2017 and 2016, respectively, are included in selling, general and administrative expenses in the consolidated statements of operations.

Segment Reporting —The Company uses the management approach in determining reportable operating segments. The management approach considers the internal organization and reporting used by the Company's chief operating decision maker for making operating decisions, allocating resources and assessing performance as the source for determining the Company's reportable segments. During the years ended August 31, 2017 and 2016, the Chief Executive Officer has been identified as the chief operating decision maker. The Company's chief operating decision maker regularly reviews consolidated assets and consolidated operating results prepared under U.S. GAAP for the enterprise as a whole when making decisions about allocating resources and assessing performance of the Company. Consequently, management has determined that the Company does not have any operating segments as defined in the Financial Accounting Standards Board (the "FASB") Accounting Standards Codification ("ASC") 280 10 50 1, "Segment Reporting."

Shipping and Handling Costs — The Company includes costs from shipping and handling within cost of revenues in the period in which they are incurred.

Table of Contents

Revenue Recognition — The Company recognizes revenues on sales of its products when persuasive evidence of an arrangement exists, the price is fixed or determinable, ownership and risk of loss has transferred and collection of the sales proceeds is probable. The Company obtains written purchase authorizations from its customers as evidence of an arrangement and these authorizations generally provide for a specified amount of product at a fixed price. Generally, the Company considers delivery to have occurred at the time of shipment as this is generally when title and risk of loss for the products will pass to the customer. The Company provides its customers with limited rights of return for non conforming shipments and product warranty claims. Based on historical return percentages, which have not been material to date, and other relevant factors, the Company estimates its potential future exposure on recorded product sales which reduces product revenues in the consolidated statements of operations and reduces accounts receivable in the consolidated balance sheets. The Company also provides standard product warranties on its products, which generally range from three months to two years. Management estimates the Company's warranty obligations as a percentage of revenues, based on historical knowledge of warranty costs and other relevant factors. To date, the related estimated warranty provisions have been insignificant.

Accounts Receivable —Accounts receivable are recorded at invoiced amounts, net of allowances for doubtful accounts, and do not bear interest. The allowance for doubtful accounts is based on management's assessment of the collectibility of customer accounts. Management regularly reviews the allowance by considering certain factors such as historical experience, industry data, credit quality, age of accounts receivable balances and current economic conditions that may affect a customer's ability to pay. Charges to bad debt expense were $42 thousand and $125 thousand during the years ended August 31, 2017 and 2016, respectively.

Net Income (Loss) Per Share of SemiLEDs Common Stock —Basic net income (loss) per share is computed by dividing net income (loss) attributable to SemiLEDs stockholders by the weighted average number of shares of common stock outstanding during the period. Net income (loss) attributable to SemiLEDs stockholders is determined by allocating undistributed earnings as if all of the earnings for the period had been distributed. Diluted net income (loss) per share is computed by using the weighted average shares of common stock outstanding, including potential dilutive shares of common stock assuming the dilutive effect of outstanding stock options and unvested restricted stock units using the treasury stock method.

Noncontrolling Interests —Noncontrolling interests are classified in the consolidated statements of operations as part of consolidated net income (loss) and the accumulated amount of noncontrolling interests in the consolidated balance sheets as part of equity. Changes in ownership interest in a consolidated subsidiary that do not result in a loss of control are accounted for as an equity transaction. If a change in ownership of a consolidated subsidiary results in loss of control and deconsolidation, any retained ownership interests are remeasured with the gain or loss reported in net earnings.

In December 2014, SemiLEDs acquired an additional 6% of the outstanding shares of Ning Xiang, increasing its ownership interest from 87% to 93%. On March 1, 2017, the 93% equity interest subsidiary, Ning Xiang was dissolved. The assets, liability and certain employees of Ning Xiang were merged into its holding company, Taiwan Bandaoti Zhaoming Co., Ltd. As a result, the difference between the consideration paid and the adjustment to the carrying amount of the noncontrolling interests to reflect SemiLEDs' increased ownership interest in Ning Xiang was recorded as a reduction in additional paid-in capital. Transactions with noncontrolling interests had the following effect on equity attributable to SemiLEDs stockholders (in thousands):

	Years Ended August 31, 2017
Net loss attributable to SemiLEDs stockholders	$(4,091)
Transfers to noncontrolling interests:	
Decrease in SemiLEDs additional paid in capital for purchase of common shares in Ning Xiang	(23)
Change from net loss attributable to SemiLEDs stockholders and transfer to noncontrolling interests	$(4,114)

Commitments and Contingencies — Liabilities for loss contingencies arising from claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred.

Fair Value Measurements — The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible. The Company determines fair value based on assumptions that market participants would use in pricing an asset or liability in the principal or most advantageous market. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

- Level 1 Inputs: Unadjusted quoted prices in active markets for identical assets or liabilities accessible to the reporting entity at the measurement date.

Table of Contents

- Level 2 Inputs: Other than quoted prices included in Level1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3 Inputs: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at measurement date.

See Note 13 for further details.

Reclassifications —Certain prior period amounts in the accompanying consolidated financial statements have been reclassified to conform to the current year presentation. These reclassifications had no effect on previously reported net income or shareholders' equity.

3. BALANCE SHEET COMPONENTS

Inventories

Inventories as of August 31, 2017 and 2016 consist of the following (in thousands):

	August 31,	
	2017	2016
Raw materials	$885	$1,400
Work in process	758	700
Finished goods	1,303	1,967
Total	$2,946	$4,067

Inventory write downs to estimated net realizable values for the years ended August 31, 2017 and 2016 were $1,506 thousand and $1,542 thousand, respectively.

Property, Plant and Equipment

Property, plant and equipment as of August 31, 2017 and 2016 consist of the following (in thousands):

	August 31,	
	2017	2016
Buildings and improvements	$13,891	$12,822
Machinery and equipment	42,562	41,065
Leasehold improvements	238	213
Other equipment	2,311	2,198
Construction in progress	321	812
Total property, plant and equipment	59,323	57,110

Less: Accumulated depreciation and amortization	(51,048)	(48,297)
Property, plant and equipment, net	$8,275	$8,813

Depreciation expense was $1,081 thousand and $5,288 thousand for the years ended August 31, 2017 and 2016, respectively.

During the fourth quarter of fiscal 2016, the ODM partner, which just recovered from a serious catastrophic event, expressed its interest on acquiring a portion of the equity of one of the Company's subsidiaries. Although the discussion is in a preliminary stage, the management believes the evaluation will take time and may further delay the transition schedule, which caused the Company to update long-term financial forecasts, which reflected lower estimated near-term and longer-term revenues and profitability compared to estimates developed from prior years. The Company's market capitalization had also fallen below its consolidated net book value based on the quoted market price of common stock for a sustained period of time. Based on these potential impairment indicators, management evaluated the recoverability of the Company's long-lived assets for impairment in fiscal 2016. The carrying amount of the Company's asset group associated with the manufacture and sale of LED chips and LED components exceeded the expected future net undiscounted cash flows to be generated from this asset group. The Company determined that the fair value of the asset group exceeded its carrying value by $8,635 thousand. The fair value of the asset group was determined, with the assistance of a third party independent valuation, based on the present value of expected future net cash flows discounted at the weighted average cost of capital of 13.4%. The resulting impairment charge that was allocated to the property, plant and equipment of the asset group was $7,433 thousand for the year ended August 31, 2016.

Property, plant and equipment pledged as collateral for the Company's notes payable were $4.6 million and $4.7 million as of August 31, 2017 and 2016, respectively.

Table of Contents

Intangible Assets

Intangible assets as of August 31, 2017 and 2016 consist of the following (in thousands):

	August 31, 2017 Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and trademarks	15	$ 574	$ 470	$ 104
Acquired technology	5	503	503	—
Total		$ 1,077	$ 973	$ 104

	August 31, 2016 Weighted Average Amortization Period (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Patents and trademarks	15	$ 487	$ 443	$ 44
Acquired technology	5	479	479	—
Total		$ 966	$ 922	$ 44

Amortization expense was $15 thousand and $238 thousand for the years ended August 31, 2017 and 2016, respectively.

No impairment charge was recognized in the year ended August 31, 2017. In the fourth quarter of fiscal 2016, in conjunction with the asset group impairment test discussed further above, management determined the intangible assets of the Company's associated with the manufacture and sale of LED chips and LED components, which consists primarily of patents, trademarks and acquired technology are part of that asset group. The asset group impairment was also allocated to these intangible assets and consequently the Company recognized an impairment charge of $1,202 thousand during the year ended August 31, 2016 on these intangible assets.

The estimated future amortization expense for the Company's intangible assets as of August 31, 2017 is as follows (in thousands):

Years Ending August 31,	Total
2018	$ 9

2019	9
2020	9
2021	9
2022	9
Thereafter	59
Total	$ 104

Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities as of August 31, 2017 and 2016 consist of the following (in thousands):

	August 31,	
	2017	2016
Advance receipts from sale of our headquarters building	$3,256	$—
Accrued compensation and benefits	1,348	1,283
Accrued business expenses	241	305
Customer deposits	215	245
Accrued professional service fees	118	223
Advance receipts	—	250
Other (individually less than 5% of total accrued expenses and other current liabilities)	304	455
Total	$5,482	$2,761

Table of Contents

4. INVESTMENTS IN UNCONSOLIDATED ENTITIES

The Company's ownership interest and carrying amounts of investments in unconsolidated entities as of August 31, 2017 and 2016 consist of the following (in thousands, except percentages):

	August 31, 2017		August 31, 2016	
	Percentage Ownership	Amount	Percentage Ownership	Amount
Equity method investments:				
SILQ (Malaysia) Sdn. Bhd. ("SILQ")	—%	$ —	33%	$ 50
Xurui Guangdian Co., Ltd. ("China SemiLEDs")	49%	—	49%	—
Cost method investments	Various	992	Various	1,318
Total investments in unconsolidated entities		$ 992		$ 1,368

There were no dividends received from unconsolidated entities through August 31, 2017.

Equity Method Investments

The Company and the other investor in SILQ, a joint venture in Malaysia which is engaged in the design, manufacture and sale of lighting fixtures and systems, each owned a 50% equity interest in SILQ in 2009. In January 2014, the Company participated in SILQ's capital increase and contributed $76 thousand. Following the capital increase, the Company's equity interest in SILQ was diluted from 50% to 49%, and consequently, the Company recognized a gain on dilution of its investment of $26 thousand. The dilution gain was recognized as additional paid in capital in the consolidated statement of changes in equity. In April 2014, the Company sold part of its equity interest in SILQ to the other investor for a cash consideration of $114 thousand and recognized a gain on sale of investment of $37 thousand. The gain was reported in the consolidated statements of operations in equity in losses from unconsolidated entities. Upon consummation of the sale, the Company's equity interest in SILQ was reduced from 49% to 33%. The Company subsequently invested $130 thousand in SILQ's capital increase in April 2014 and its equity interest remains unchanged. In November 2016, the Company sold all of its equity interest in SILQ to the other investor for a cash consideration of $41 thousand and recognized a loss on sale of investment of $9 thousand.

The Company still owns a 49% equity interest in China SemiLEDs. However, this investment has a carrying amount of zero as a result of a previously recognized impairment.

Cost Method Investments

The fair values of the Company's cost method investments are not readily available. All cost method investments are assessed for impairment when events or changes in circumstances indicate that the carrying amounts may not be recoverable. In February 2017, the Company sold all Nanoteco shares owned to the other investor for a cash consideration of $18 thousand and recognized a loss on sale of investment of $2 thousand. The Company recognized an other-than-temporary impairment loss of $352 thousand on our cost method investments in Intematix for the year ended August 31, 2017 based on the excess of the carrying amount over the estimated recoverable value. The recoverable value of the investment was determined based on the Company's best estimate of the amount that could be realized from the investment, which considered the latest financial information.

In the fourth quarter of fiscal 2016, management reviewed the operating performance and financial condition of the investees based on their latest available financial statements or other publicly available information or the investees' plan of liquidation. Management considered the extent and duration of time to which the fair value of the investment has been less than its carrying amount, the financial condition of the investees and the prospect for recovery in the near term, and recognized an other-than-temporary impairment loss of $317 thousand and $280 thousand on its investments in LumenMax and Nanoteco respectively for the year ended August 31, 2016.

Table of Contents

5. INDEBTEDNESS
Long term Debt

Long term debt as of August 31, 2017 and 2016 consist of the following loans with a bank (in thousands):

	August 31,	
	2017	2016
First note payable	$1,019	$1,105
Second note payable	1,707	1,804
Total long-term debt	2,726	2,909
Less: Current installments	(335)	(314)
Total long-term debt, excluding current installments	$2,391	$2,595

The long term notes in the table above carry an interest rates of 1.62% as of August 31, 2017 and 2016, are payable in monthly installments, and are secured by the Company's property, plant and equipment. The interest rates are based on the annual time deposit rate plus a certain spread. The first note payable requires monthly payments of principal and interest in the amount of $13 thousand over the 15 year term of the note with final payment to occur in May 2024. The second note payable requires monthly payments of principal and interest in the amount of $18 thousand over the 15 year term of the note with final payment to occur in December 2025. The notes do not have prepayment penalties or balloon payments upon maturity of the notes.

The scheduled principal payments for the Company's long term debt as of August 31, 2017 consist of the following (in thousands):

Years Ending August 31,	Scheduled Principal Payments
2018	$ 337
2019	342
2020	348
2021	354
2022	359
Thereafter	986
Total	$ 2,726

6. COMMITMENTS AND CONTINGENCIES

Operating Lease Agreements —The Company has several operating leases with unrelated parties, primarily for land, plant and office spaces in Taiwan, including cancellable and noncancellable leases that expire at various dates between February 2018 and December 2020. As of August 31, 2017 and 2016, the Company maintained outstanding deposits for these leases in the amount of $87 thousand and $83 thousand, respectively, which are included other long term assets in the accompanying consolidated balance sheets. Lease expense related to these operating leases was $454 thousand and $462 thousand for the years ended August 31, 2017 and 2016, respectively. Lease expense is recognized on a straight line basis over the term of the lease.

The aggregate future noncancellable minimum rental payments for the Company’s operating leases as of August 31, 2017 consist of the following (in thousands):

Years Ending August 31,	Operating Leases
2018	$ 319
2019	96
2020	96
2021	32
2022	—
Thereafter	—
Total	$ 543

Purchase Obligations —The Company had purchase commitments for inventory, property, plant and equipment in the amount of $1.5 million as of both August 31, 2017 and 2016.

59

Table of Contents

Litigation — The Company is directly or indirectly involved from time to time in various claims or legal proceedings arising in the ordinary course of business. The Company recognizes a liability when it is probable that a loss has been incurred and the amount is reasonably estimable. There is significant judgment required in assessing both the likelihood of an unfavorable outcome and whether the amount of loss, if any, can be reasonably estimated.

On June 21, 2017, Well Thrive filed a complaint against SemiLEDs Corporation in the United States District Court for the District of Delaware. The complaint alleges that Well Thrive is entitled to return of $500 thousand paid toward a note purchase pursuant to the Purchase Agreement effective July 6, 2016 with Dr. Peter Chiou, which was assigned to Well Thrive on August 4, 2016. Pursuant to the terms of the Purchase Agreement, the Company has retained the $500 thousand payment as liquidated damages. Well Thrive alleges that the liquidated damages provision is unenforceable as an illegal penalty and does not reflect the amount of purported damages. Well Thrive and the Company jointly filed a Joint Status Report, along with their proposed scheduling order on September 20, 2017 accordingly to the order required by the Court. Both parties are waiting whether the Court adopts the proposals in the proposed scheduling order.

Except as described above, as of August 31, 2017, there was no pending litigation that could have a material impact on the Company’s financial position, results of operations or cash flows.

7. COMMON STOCK

Reverse Stock Split —On April 15, 2016, the Company amended its certificate of incorporation to effect a one-for-ten (1:10) reverse stock split. This reverse stock split became effective as of the close of business on April 15, 2016. The reverse stock split had no effect on the par value of its common stock and did not reduce the number of authorized shares of common stock but reduced the number of issued and outstanding shares of common stock by the ratio. Accordingly, the issued and outstanding shares, stock options disclosures, net loss per share, and other per share disclosures for all periods presented have been retrospectively adjusted to reflect the impact of this reverse stock split.

On August 23, 2016, SemiLEDs issued 577 thousand shares of common stock at a price of $5.00 per share, resulting in net cash proceeds of $2,885 thousand, in a private placement pursuant to an exemption from the registration requirements of the Securities Act of 1933.

8. STOCK BASED COMPENSATION

The Company currently has one equity incentive plan (the “2010 Plan”), which provides for awards in the form of restricted shares, stock units, stock options or stock appreciation rights to the Company’s employees, officers, directors and consultants. In April 2014, SemiLEDs’ stockholders approved an amendment to the 2010 Plan that increases the number of shares authorized for issuance under the plan by an additional 250 thousand shares. Prior to SemiLEDs’ initial public offering, the Company had another stock based compensation plan (the “2005 Plan”), but awards are made from the 2010 Plan after the initial public offering. Options outstanding under the 2005 Plan continue to be governed by its existing terms.

A total of 521 thousand shares was reserved for issuance under the 2010 Plan as of both August 31, 2017 and 2016. As of August 31, 2017 and 2016, there were 254 thousand and 255 thousand shares of common stock available for future issuance under the equity incentive plans.

In March 2017, SemiLEDs granted 5 thousand restricted stock units to its directors that vest 100% on the earlier of March 31, 2018 and the date of the next annual meeting. The grant-date fair value of the restricted stock units was $3.18 per unit.

During fiscal 2016, SemiLEDs granted 8 thousand restricted stock units in April 2016 to its directors that vested 100% on March 31, 2017. The grant-date fair value of the restricted stock units was $3.40 per unit.

Stock based Compensation Expense

The total stock-based compensation expense consists of stock-based compensation expense for stock options and restricted stock units granted to employees, directors, nonemployees and also includes stock options to purchase SemiLEDs' common stock as part of an employment agreement related to the Company's acquisition of SBDI (later on renamed as TSLC Corporation). A summary of the stock-based compensation expense for the years ended August 31, 2017 and 2016 are as follows (in thousands):

	Years Ended August 31,	
	2017	2016
Cost of revenues	$48	$91
Research and development	12	40
Selling, general and administrative	(35)	251
	$25	$382

60

Table of Contents

Stock based compensation expense is recorded net of estimated forfeitures such that expense is recorded only for those stock based awards that are expected to vest. A forfeiture rate is estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from initial estimates. A forfeiture rate of zero is estimated for stock based awards with vesting term that is less than or equal to one year from the date of grant.

There was no recognized stock-based compensation tax benefit for the years ended August 31, 2017 and 2016, as the Company recorded a full valuation allowance on net deferred tax assets as of August 31, 2017 and 2016.

Stock Options Awards

The grant date fair value of stock options is determined using the Black Scholes option pricing model. The Black Scholes option pricing model requires inputs including the market price of SemiLEDs' common stock on the date of grant, the term that the stock options are expected to be outstanding, the implied stock volatilities of several of the Company's publicly traded peers over the expected term of stock options, risk free interest rate and expected dividend. The expected term is derived from historical data on employee exercises and post vesting employment termination behavior after taking into account the contractual life of the award. The risk free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the expected term of the related options. The expected dividend has been zero for the Company's option grants as SemiLEDs has never paid dividends and does not expect to pay dividends for the foreseeable future. Each of these inputs is subjective and generally requires significant judgment to determine.

A summary of the option activity and changes for the years ended August 31, 2017 and 2016 is presented below:

	Number of Stock Options Outstanding (In thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In thousands)
Outstanding—September 1, 2015	22	$ 107.14	4.1	$ —
Granted	—	—		
Forfeited	(8)	106.69		
Exercised	—	—		
Outstanding—August 31, 2016	14	$ 107.40	3.6	$ 1
Granted	—	—		
Forfeited	(2)	63.75		
Exercised	—	—		
Outstanding—August 31, 2017	12	$ 116.10	3.0	$ —
Vested and expected to vest—August 31, 2017	12	$ 116.10	3.0	$ —
Exercisable—August 31, 2017	12	$ 116.10	3.0	$ —

As of August 31, 2017 and 2016, unrecognized compensation costs related to unvested stock options were nil.

Restricted Stock Units Awards

The grant date fair value of stock units is based upon the market price of SemiLEDs' common stock on the date of the grant. This fair value is amortized to compensation expense over the vesting term.

Table of Contents

A summary of the restricted stock unit awards outstanding and changes for the years ended August 31, 2017 and 2016 is presented below:

	Number of Stock Units Outstanding (In thousands)	Weighted-Average Grant Date Fair Value
Outstanding—September 1, 2015	119	$ 12.68
Granted	8	3.40
Vested	(35)	16.61
Forfeited	(30)	11.75
Outstanding—August 31, 2016	62	$ 9.83
Granted	5	3.18
Vested	(26)	10.16
Forfeited	(25)	9.75
Outstanding—August 31, 2017	16	$ 7.33

As of August 31, 2017 and 2016, unrecognized compensation cost related to unvested restricted stock unit awards of $0.1 million and $0.3 million, respectively, is expected to be recognized over a weighted average period of 0.93 years and 1.35 years, respectively, and will be adjusted for subsequent changes in estimated forfeitures.

9. NET LOSS PER SHARE OF COMMON STOCK

The following stock based compensation plan awards were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been anti dilutive (in thousands of shares):

	Years Ended August 31, 2017	2016
Stock units and stock options to purchase common stock	10	28

10. INCOME TAXES

The Company's loss before income taxes is primarily derived from the operations in Taiwan and income tax expense is primarily incurred in Taiwan.

The statutory income tax rate in Taiwan is 17%. An additional 10% corporate income tax is assessed on undistributed income for the entities in Taiwan, but only to the extent such income is not distributed or set aside as a legal reserve before the end of the following year. The 10% surtax is recorded in the period the income is earned, and the reduction in the surtax liability is recognized in the period the distribution to stockholders or the setting aside of legal reserve is finalized in the following year.

The Company's loss before income taxes for the years ended August 31, 2017 and 2016 consist of the following (in thousands):

	Years Ended August 31,	
	2017	2016
U.S. operations	$(628)	$(973)
Foreign operations	(3,476)	(20,331)
Loss before income taxes	$(4,104)	$(21,304)

Table of Contents

Income tax expense differed from the amounts computed by applying the statutory U.S. federal income tax rate of 34% to loss before income taxes for the years ended August 31, 2017 and 2016 as a result of the following (in thousands):

	Years Ended August 31,	
	2017	2016
Computed "expected" income tax benefit	$(1,396)	$(7,243)
Foreign tax rate differential	337	2,078
Valuation allowance	1,036	5,097
Other	23	68
Income tax expense	$—	$—

Net deferred tax assets (liabilities) as of August 31, 2017 and 2016 consist of the following (in thousands):

	August 31,	
	2017	2016
Deferred tax assets:		
Inventories, primarily due to inventory obsolescence and lower of cost or market provisions	$1,179	$1,659
Allowance for doubtful accounts	161	155
Accruals and other	86	196
Property, plant and equipment	3,604	4,126
Stock-based compensation	615	609
Investments in unconsolidated entities	5,557	5,560
Net operating loss carryforwards	22,741	21,396
Net operating loss carryforwards-undistributed earnings tax	10,486	9,679
Total gross deferred tax assets	44,429	43,380
Less: Valuation allowance	(44,429)	(43,380)
Deferred tax assets, net of valuation allowance	$—	$—

A valuation allowance is provided when it is more likely than not that 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 and operating loss carryforwards utilizable. Management considers the scheduled reversal of deferred tax liabilities, carryback availability, projected future income, and tax-planning strategies in making this assessment. The Company established full valuation allowances to offset all of its deferred tax assets due to the uncertainty of realizing future tax benefits from its net operating loss carryforwards and other deferred tax assets.

As of August 31, 2017, unused net operating loss carryforwards were as follows (in thousands):

	August 31, 2017	Expiration Year
U.S. federal net operating loss carryforwards	$12,490	2025-2037
Foreign net operating loss carryforwards (expiring over the next 5 years)	21,950	2018-2022
Foreign net operating loss carryforwards (expiring in more than 5 years)	85,810	2023-2027
Foreign net operating loss carryforwards (indefinite life)	116,512	—
Total unused net operating loss carryforwards and income tax credits	$236,762	

Unrecognized Tax Benefits

As of both August 31, 2017 and 2016, the Company had no unrecognized tax benefits.

63

Table of Contents

The Company files income tax returns in the United States federal and certain foreign jurisdictions. The tax years 2005 through 2016 remain open in most jurisdictions, and previously filed in various U.S. states. Below is a summary of open tax years by major tax jurisdiction:

	Open Tax Year
U.S. federal	2005-2016
U.S. state	2005-2014
Foreign—Taiwan	2016

The Company is not currently under examination by income tax authorities in any federal, state or foreign jurisdictions. The Company does not expect that the total amount of unrecognized tax benefits will change significantly within the next 12 months.

11. EMPLOYEE TERMINATION BENEFITS

In December 2015, the Company announced a restructuring plan with respect to its chips manufacturing operation in order to better align its fabless business model. Under the restructuring plan, the Company implemented certain workforce reductions with respect to its chips manufacturing operation. In the second quarter of fiscal 2016, part of its employees related to the Company's chips manufacturing transferred to their ODM partner. The Company also reduced the workforce at chips manufacturing operations that are no longer required to support production and operations. Accordingly, employee termination benefits of $207 thousand for 66 employees, or approximately 29 percent of the workforce, was recognized during the year ended August 31, 2016.

12. PRODUCT AND GEOGRAPHIC INFORMATION

Revenues by products for the years ended August 31, 2017 and 2016 are as follows (in thousands):

	Years Ended August 31, 2017	2016
LED chips	$358	$797
LED components	6,738	7,716
Lighting products	1,335	1,466
Other(1)	783	161
Total	$9,214	$10,140

(1) Other includes primarily revenues attributable to the sale of epitaxial wafers, scraps and raw materials and the provision of services.

Revenues by geography are based on the billing address of the customer. The following table sets forth revenues by geographic area for the years ended August 31, 2017 and 2016 (in thousands):

	Years Ended August 31,	
	2017	2016
United States	$4,469	$4,157
Taiwan	1,114	1,190
Netherlands	750	706
France	716	21
China	560	1,375
Germany	507	523
Hong Kong	440	1,287
Other (individually less than 5% of total net revenues)	658	881
Total	$9,214	$10,140

Tangible Long Lived Assets

Substantially all of the Company’s tangible long lived assets are located in Taiwan.

Table of Contents

13. FAIR VALUE MEASUREMENTS

The following table presents the carrying amounts and estimated fair values of the Company's financial instruments as of August 31, 2017 and 2016 (in thousands):

	August 31, 2017		August 31, 2016	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial assets:				
Cash and cash equivalents	$3,582	$3,582	$6,030	$6,030
Receivables (including related parties)	1,111	1,111	900	900
Other assets (non-derivatives)	506	506	643	643
Financial liabilities:				
Payables (including related parties)	$3,835	$3,835	$4,552	$4,552
Long-term debt (including current installments)	2,726	2,708	2,909	2,889

The fair values of the financial instruments shown in the above table as of August 31, 2017 and 2016 represent the amounts that would be received to sell those assets or that would be paid to transfer those liabilities in an orderly transaction between market participants at that date. Those fair value measurements maximize the use of observable inputs. However, in situations where there is little, if any, market activity for the asset or liability at the measurement date, the fair value measurement reflects management's own judgments about the assumptions that market participants would use in pricing the asset or liability. Those judgments are developed by management based on the best information available in the circumstances, including expected cash flows and appropriately risk adjusted discount rates, available observable and unobservable inputs.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments:

- Cash, cash equivalents, receivables and payables (including related parties) and notes payable to banks: The carrying amounts, at face value or cost plus accrued interest, approximate fair value because of the short maturity of these instruments.
- Other assets (non derivatives) include primarily value added tax ("VAT") refund receivables, refundable deposits, and restricted time deposits. The fair value of VAT refund receivables approximates the carrying amount because of the short maturity. The fair value of refundable deposits and restricted time deposits with no fixed maturity is based on the carrying amount.
- Long term debt: The fair value of the Company's variable rate long term debt is estimated based on the prevailing market rate adjusted by the Company's credit spread.

The following table presents assets that were measured at fair value on a nonrecurring basis as of August 31, 2017 and 2016 (in thousands):

	August 31, 2017				
	Fair value	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total loss
Investment in non-marketable equity security—Intematix	$62	$ —	$ —	$ 62	$352

	August 31, 2016				
	Fair value	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total losses
Long-lived assets	$9,660	$ —	$ —	$ 9,660	$8,635
Goodwill	—	—	—	—	55
Investment in non-marketable equity security—Nanoteco and LumenMax	20	—	—	20	597
Total	$9,680	$ —	$ —	$ 9,680	$9,287

65

Table of Contents

The asset group associated with the manufacture and sale of LED chips and LED components with a carrying amount of $18.3 million at August 31, 2016 was written down to its fair value of $9.7 million, resulting in an impairment charge of $8,635 thousand on property, plant and equipment and intangible assets for the year ended August 31, 2016. Management determined the fair value of the asset group based on the present value of expected future net cash flows discounted at the weighted average cost of capital of 13.4%. Management developed the expected future net cash flows based on company-specific assumptions established using historical data and internally developed estimates as part of the Company's long-term planning process, and adjusted them as appropriate to take into account the highest and best use of the long-lived assets from the perspective of market participants in measuring fair value of the asset group.

An impairment loss on the Company's investment in Intematix, Nanoteco and LumenMax was recognized based on the excess of the carrying amount over the estimated recoverable value. The recoverable value of the investment was determined based on management's best estimate of the amount that could be realized from the investment, which considered the latest financial information. Management believes the estimated recoverable value reflected the exit price from a market participant's perspective at August 31, 2017 and 2016.

The following table presents the long-lived assets (property, plant and equipment and intangible assets) that were measured at relative fair value on a nonrecurring basis as of August 31, 2016 (in thousands):

	Fair value	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total losses
Property, plant and equipment	$8,738	$ —	$ —	$ 8,738	$7,433
Intangible assets	44	—	—	44	1,202
Total	$8,782	$ —	$ —	$ 8,782	$8,635

Property, plant and equipment with a carrying amount of $16.1 million was written down to its relative fair value of $8.7 million, resulting in an impairment charge of $7.4 million for the year ended August 31, 2016. Intangible assets with a carrying amount of $1.2 million was written down to its relative fair value of $44 thousand, resulting in an impairment charge of $1.2 million for the year ended August 31, 2016. Management determined the fair value of the asset group based on the present value of estimated future net cash flows discounted at the weighted average cost of capital of 13.4%. Management developed the expected future net cash flows based on company-specific assumptions established using historical data and internally developed estimates as part of the Company's long-term planning process, and adjusted them as appropriate to take into account the highest and best use of the long-lived assets from the perspective of market participants in measuring fair value.

66

Table of Contents

14. QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The following tables set forth selected quarterly statement of operations data for each of the years ended August 31, 2017 and 2016 (in thousands, except per share data):

	Three Months Ended				
	November 30, 2016	February 28, 2017	May 31, 2017 (1)	August 31, 2017	Fiscal 2017
Revenues, net	$2,702	$1,830	$2,111	$2,571	$9,214
Cost of revenues	2,586	1,823	2,297	2,426	9,132
Gross profit (loss)	116	7	(186)	145	82
Operating expenses	1,219	1,136	1,103	952	4,410
Loss from operations	(1,103)	(1,129)	(1,289)	(807)	(4,328)
Net loss attributable to SemiLEDs stockholders	$(690)	$(1,142)	$(1,586)	$(673)	$(4,091)
Net loss per share attributable to SemiLEDs stockholders, basic and diluted	$(0.20)	$(0.32)	$(0.45)	$(0.19)	$(1.16)

(1) Results for the third quarter of fiscal 2017 include impairment charge of $352 thousand pertained to cost method investment.

	Three Months Ended				
	November 30, 2015	February 29, 2016	May 31, 2016	August 31, 2016 (2)	Fiscal 2016
Revenues, net	$2,963	$2,916	$2,378	$1,883	$10,140
Cost of revenues	4,407	3,711	3,828	3,132	15,078
Gross loss	(1,444)	(795)	(1,450)	(1,249)	