# **CRS Electronics Inc.**

# **Management Discussion and Analysis**

Year Ended December 31, 2012

April 22, 2013

The following information prepared as of April 22, 2013 is Management's Discussion and Analysis ("MD&A") of the financial condition and performance of CRS Electronics Inc. (the "Company" or "CRS") for the year ended December 31, 2012 and should be read in conjunction with the audited financial statements for the year ended December 31, 2012 which have been prepared in accordance with International Financial Reporting Standards.

All amounts are in United States (U.S.) dollars unless otherwise noted (tabular amounts are in thousands of U.S. dollars).

This MD&A is the responsibility of management. The Board of Directors carries out its responsibility for the review of this disclosure principally through its audit committee comprised of a majority of independent directors. The audit committee reviews and prior to its publication, approves, pursuant to the authority delegated to it by the Board of Directors, this disclosure.

# **Forward-Looking Information**

The statements made in this MD&A, particularly those in the "Outlook" section that are not historical facts, contain forward-looking information that involves risk and uncertainties. All statements, other than statements of historical facts, which address CRS's expectations, should be considered forward-looking statements. Such statements are based on management's exercise of business judgment as well as assumptions made by management and with information currently available to management. When used in this document, the words "may", "will", "anticipate", "believe", "estimate", "expect", "intend" and words of similar import, are intended to identify any forward-looking statements. The forward-looking statements made in this MD&A describe our expectations as at April 22, 2013.

You should not place undue reliance on these forward-looking statements. These statements reflect our current view of future events and are subject to certain risks and uncertainties as contained in the Company's filings with Canadian securities regulatory authorities. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, our actual results could differ materially from those anticipated in these forward-looking statements. Management undertakes no obligation to reflect events or circumstances after the date hereof, or to reflect the occurrence of any unanticipated events. Although the Company believes that their expectations are based on reasonable assumptions, the Company can give no assurance that our forward-looking statements will materialize. Subject to applicable laws, the Company assumes no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or any other reason.

The material assumptions that were applied in making the forward looking statements in this MD&A include: execution of the Company's existing plans and development programs for its product line, either of which may change due to changes in the views of the Company or if new information arises which makes it prudent to change such plans or programs; and the accuracy of current interpretation of market study results.

For a description of material factors that could cause our actual results to differ materially from the forward-looking statements in this MD&A, please see the "Risk and Uncertainties" section.

# **Overview**

For over 14 years, CRS has been a developer and manufacturer of light emitting diode ("LED") light products. As a manufacturer of LED light boards for its own school bus warning lights and under contract for other light applications, CRS realized that the improvement in LEDs created an opportunity for CRS to supply LED based indoor and outdoor lighting. Throughout 2007 to 2012 inclusive, CRS expended a significant amount of time and capital to develop an LED streetlight engine, the LED MR16 halogen bulb replacement and an LED PAR series of interior lights for the commercial market sector.

CRS is currently focused on the expansion of its lamps to the North American interior light replacement market at a commercial level. LED lighting products save energy, have attractive economic benefits and are eco-friendly. CRS' LED MR16 was tested by the Department of Energy in the United States ("DOE") under the Commercially Available LED Product Evaluation and Reporting ("CALIPER") Program and received the highest ranking in several of the features tested. Additionally, CRS seeks to expand into the North American LED fixture market at a commercial level. Over the next few years, management believes that LED lighting products will gain market share.

# Outlook – Fiscal 2013

For Fiscal 2013 the Company will be focusing on increasing revenues by adding additional commercial partners and achieving Energy Star certification and DLC certification to support commercial sales efforts. Additional work being undertaken on reducing product costing is also expected to support these initiatives.

# **Business Objectives and Milestones**

CRS' overall business objective is to gain market share in the LED general illumination market to provide an economic return to its shareholders.

# Sales Objectives

# 1. Energizer Brand LED Sales

CRS' objective continues to be the expansion of its product line under the Energizer Licensing agreement. This objective incorporates a) the creation of select partnerships with commercial distributors for distribution of the lamps, b) the successful launch a North American marketing campaign, followed by c) a product roll out into the commercial North American market.

## 2. Commercial LED Lamp Sales

Our objective is to expand sales in the commercial replacement market. To achieve this target we plan to a) augment the existing LED lights offered by CRS (MR16, PAR 20, PAR 30 and PAR 38) to provide both premium and economy product lines to our electrical distributors and b) continue to expand the product portfolio (R20, BR30 and BR40 lamps) c) create strong partnerships in the new construction, replacement lamp and retrofit industries.

#### 3. Bus light business and contract LED light board manufacturing

CRS continues to support our partners in these market segments. Over many years CRS has developed strong partnerships and the product lines deliver consistent gross margins. CRS plans to work with our partners to maintain its current sales volumes.

#### 4. Lighting Fixture Sales

CRS will introduce LED light fixtures to North America through a new brand called Lumenova™. The brand will be represented by commercial lighting agents and sold through electrical distribution.

# **Product Development Objectives**

#### 1. Product cost reduction

CRS expects continued demand for lower cost offerings for customers. The Company has been engaged with various offshore companies and is considering various outsourcing and product development changes to reduce the price points of our products while maintaining CRS' high performance and specification standards.

# 2. Product Development

Market research has shown that Energy Star rating have strong consumer recognition and provide confidence for selection of sound, energy efficient products. On both domestically produced and imported products this approval is being aggressively pursued. CRS will work jointly with its strategic partners to provide performance specifications that are at the 'head of the class' for professional series commercial lights.

# Performance of CRS

## Key performance indicators

The key performance indicators for CRS are revenue growth, gross profit, EBITDA, net income, and increasing patent protection on intellectual property.

The success of the Company to expand will be measured by revenue growth. Revenue growth will be dependent on the Company being able to increase its sales staff and expand production capacity to meet the anticipated demand for its products.

The Company is targeting gross margin percentages (defined as revenues less cost of sales and plant expenses as a percentage of revenues) of approximately 35.0% on an annual basis. Maintaining a consistent gross margin will be an indicator of how well the Company is managing its production costs and customer contract negotiations. The Company is looking at various product development and outsourcing alternatives to increase gross margin.

Management believes that EBITDA is a measure of how efficiently and effectively the business is operating. The Company is entering a period of rapid expansion and growth. Therefore selling and general administration costs have increased over the last eighteen months. To maintain an acceptable EBITDA, management will need to balance the increase in selling and general administration costs and revenue growth. Net income is also viewed as an important measure for determining the value created for shareholders.

#### Measurement

Below in "Quarterly Results" and "Results of Operations" are two tables the Company uses to assess performance. "Quarterly Results" presents the Company's results for the last eight quarters, followed by a comparison of the Company's fiscal year to the prior year.

# **Quarterly Results**

	Fiscal 2012	2			Fiscal 2011			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
In Thousands of dollars	USD	USD	USD	USD	USD	USD	USD	USD
Sales	\$463.3	\$607.1	\$687.7	\$1,312.0	\$526.6	\$461.0	\$614.9	\$540.7
Gross profit (loss)	(\$750.1)	(\$348.1)	(\$277.3)	(\$357.6)	(\$384.1)	(\$179.6)	(\$18.0)	\$19.7
Gross profit (loss)%	(161.9%)	(57.3)%	(40.3)%	(27.3)%	(72.9)%	(39.0)%	(2.9)%	3.6%
Select expenses								
Selling and marketing	446.2	118.0	278.9	571.6	352.7	286.4	264.7	108.7
General and administrative	566.7	719.5	453.2	512.0	427.4	430.1	488.5	415.7
Engineering and research	61.0	103.2	106.5	112.8	175.8	194.0	85.7	80.2
Foreign exchange (gain) loss	49.6	(175.6)	(147.6)	30.1	(57.4)	152.9	(10)	6.0
Total expenses	1,123.5	765.1	691.0	1,226.5	898.5	1,063.4	828.9	610.6
Income (loss) from operations	(1,873.6)	(1,113.2)	(968.3)	(1,584.1)	(1,282.6)	(1,243.0)	(846.9)	(590.9)
Add back: Depreciation and amortization	107.5	109.4	112.3	111.8	125.1	89.9	83.3	81.6
EBITDA Loss	(1,766.1)	(1,003.8)	(856.0)	(1,472.3)	(1,157.5)	(1,153.1)	(763.6)	(509.3)
Finance costs	(10.1)	2.8	(34.3)	(23.2)	(18.9)	(13.6)	(10.8)	(16.9)
Refundable tax credit income (expense)	_	_	_	_	(41.3)	19.3	12.4	28.3
Depreciation of capital equipment	(70.6)	(72.2)	(75.7)	(76.1)	(67.5)	(61.2)	(54.6)	(52.7)
Amortization of intangibles	(28.5)	(28.8)	(28.7)	(28.0)	(27.5)	(28.7)	(28.7)	(28.9)
Amortization of patents and trademarks	(8.4)	(8.4)	(7.9)	(7.7)	(30.1)	_	_	_
Impairment of product development costs	_	_	_		(456.0)	_	_	_
Impairment of patents and trademarks Gain (loss) on sale of equipment, furniture	(21.8)	_	_	_	(258.2)	_	_	_
and fixtures	(237.4)	(12.4)	(5.3)	(0.3)	_	0.1	_	_
Change in warrant liability	170.7	(50.9)	26.3	462.1	13.3	1,078.7	277.0	62.8
Income taxes recovery	_	_	_	_	_	_	_	_
Net (loss) income	(\$1,972.2)	(\$1,173.7)	(\$981.6)	(\$1,145.5)	(\$2,043.7)	(\$158.5)	(\$568.3)	(\$516.7)
Loss per share	(0.03)	(0.02)	(0.02)	(0.03)	(0.05)	(0.00)	(0.02)	(0.02)

# **Results of Operations**

The following table sets out the Company's results for the year ended December 31, 2012 compared with the prior year ended.

	Year End Decembe		Increase	% Increase
In Thousands of U.S. dollars (1)	2012	2011	(Decrease)	(Decrease)
Sales	\$3,070.1	\$2,143.2	926.9	43.2%
Gross profit (loss)	(1,733.1)	(562.0)	(1,171.1)	208.4%
Gross profit (loss) percentage	(56.5%)	(26.2%)		
Selling and marketing	1,414.7	1,012.5	402.2	39.7%
As a % of sales	46.2%	47.2%		
General and administrative	2,251.4	1,761.7	489.7	27.8%
As a % of sales	73.3%	82.2%		
Engineering and research	383.4	535.7		
Foreign exchange (gain) loss	(243.5)	91.7		
Total operating expenses	3,806.0	3,401.6		
Income (loss) from operations	(5,539.1)	(3,963.6)		
Add back amortization	441.0	380.0		
EBITDA Loss	(5,098.1)	(3,583.6)	(1,514.5)	42.3%
Finance costs	(64.8)	(60.1)		
Depreciation of capital equipment	(294.6)	(236.1)		
Amortization of product development	(114.0)	(113.8)		
Amortization of patents and trademarks	(32.4)	(30.1)		
Impairment of product development	-	(456.0)		
Impairment of patents and trademarks Gain (loss) on sale of equipment, furniture	(21.8)	(258.2)		
and fixtures	(255.4)	0.1		
Refundable tax credit income	(===::)	18.8		
Change in warrant liability	608.2	1,431.8		
Net loss	(\$5,272.9)	(\$3,287.2)	(1,985.7)	60.4%

<sup>&</sup>lt;sup>(1)</sup> Information for 2012 and 2011 is prepared in accordance with International Financial Reporting Standards ("IFRS").

#### Revenues

Revenues for the three months ended December 31, 2012 decreased 12.0% to \$463,300 from \$526,600 for the same period in 2011.

Revenue from bus light sales during the three months ended December 31, 2012 increased 26.6% to \$221,900 from \$175,300 for the same period in 2011. Revenues from contract manufacturing for the three months ended December 31, 2012 decreased 30.4% to \$61,400 from \$88,200 in 2011.

Commercial LED revenue for the three months ended December 31, 2012 stemmed from LED MR16 sales that decreased 2.8% to \$106,300 from \$109,400 during the same period in 2011.

Retail LED revenue for the three months ended December 31, 2012 stemmed from LED MR16, GU10, PAR 20, 31, 38, and A19 sales that decreased 52.0% to \$73,700 from \$153,700 during the same period in 2011.

Revenues for the year ended December 31, 2012 increased 43.2% to \$3,070,100 from \$2,143,200 for the same period in 2011.

Revenue from bus light sales during the year ended December 31, 2012 increased 2.7% to \$1,043,300 from \$1,015,900 for the same period in 2011. Revenues from contract manufacturing for the year ended December 31, 2012 decreased 31.3% to \$311,600 from \$453,800 in 2011.

Commercial LED revenue for the year ended December 31, 2012 stemmed from LED MR16 sales that increased 13.9% to \$585,800 from \$514,500 during the same period in 2011.

Retail LED revenue for the year ended December 31, 2012 stemmed from LED MR16, GU10, PAR 20, 31, 38, and A19 sales that increased 610.3% to \$1,129,400 from \$159,000 the same period in 2011.

#### Cost of Sales and Gross Profit

The cost of sales is inclusive of direct material costs, plant labour, plant overheads, plant management salaries, amortization of plant and equipment and the amortization of product development costs.

For the three months ended December 31, 2012, gross loss percentage was (161.9)% compared to (72.9)% in the same period last year. For the year ended December 31, 2012, gross profit percentage was (56.5)% compared to (26.2)% in the same period last year. The decrease is primarily attributed to two factors: 1) A large portion of the retail product shipped in 2012 was subject to continued cost overrun issues and a contractual returned inventory provision, and 2) the sales volume in relation to increased fixed plant expenses and amortization charged to cost of goods sold resulted in lower gross margins. Measures are being taken to mitigate these issues which could persist to impact the gross margin of orders placed in fiscal 2013.

## Selling and marketing expenses

For the three months ended December 31, 2012 selling and marketing expenses increased 26.5% to \$446,200 from \$352,700 for the same period in 2011. This increase reflects the company's 2012 retail media strategy.

For the year ended December 31, 2012 selling and marketing expenses increased 39.7% to \$1,414,700 from \$1,012,500 for the same period in 2011. This increase reflects the addition of the retail sales and marketing team and additional marketing costs focused in the retail lighting sector in conjunction with the retail launch during Fiscal 2012.

# General and administrative expenses

For the three months ended December 31, 2012 general and administrative expenses increased 32.6% to \$566,700 from \$427,400 for the same period in 2011. The majority of the increase relates an increase in stock based compensation during the fourth quarter 2012.

For the year ended December 31, 2012 general and administrative expenses increased 27.8% to \$2,251,400 from \$1,761,700 for the same period in 2011. This increase mainly relates to expenses incurred in conjunction with the June 8, 2012 private placement, stock based compensation and restructuring expenses.

# **Engineering and Research**

Research costs are expensed in the year the costs are incurred. When a product is likely to be commercially viable in the form developed, the costs to complete the development are capitalized on the balance sheet. When commercial sales begin the development costs are amortized over the expected life of the product.

For the three months ended December 31, 2012 net research and development expenses decreased to \$61,000 from \$175,800 for the same period in 2011. The Company has restructured the Research and Development department to better utilize its assets after the retail lighting sector product launch.

For the year ended December 31, 2012 net research and development expenses decreased to \$383,400 from \$535,700 for the same period in 2011. The Company has restructured the Research and Development department to better utilize its assets after the retail lighting sector product launch.

#### Finance Costs

Total finance costs for the three month period ended December 31, 2012 decreased \$8,800 to \$10,100 from \$18,900 for the same period in 2011. Total finance costs for the year ended December 31, 2012 increased \$4,700 to \$64,800 from \$60,100 for the same period in 2011.

Finance costs are attributable to a mix of long and short term debt obligations as follows:

Interest on short-term debt obligations decreased 7.6% to \$8,500 during the three month period ended December 31, 2012 from \$9,200 during the same period in 2011. Interest on short-term debt obligations increased 31.6% to \$37,100 during the year ended December 31, 2012 from \$28,200 during the same period in 2011. The increase in the expense for the year ended resulted from an increase in the average credit card debt and bank operating loans during the period.

Net interest on long-term debt obligations decreased 83.5% to \$1,600 during the three months ended December 31, 2012 from \$9,700 during the same period in 2011. Net interest on long-term debt obligations decreased 13.2% to \$27,700 during the year ended December 31, 2012 from \$31,900 during the same period in 2011. Net interest on long-term debt obligations are comprised of the following:

	Three Months ended		Year ended	
	Decembe	December 31		er 31
	2012 2011		2012	2011
Interest LTD	6,100	5,300	25,700	21,300
Accretion expense	12,700	11,100	41,500	39,700
Less:				
Interest revenue	(17,200)	(6,700)	(39,500)	(29,100)
Net Interest on LTD:	1,600	9,700	27,700	31,900

Interest costs are higher during 2012 due to higher average principal outstanding on long-term debt. This is primarily attributable to the finance of capital equipment that occurred in third and fourth quarter of 2012. Accretion expense is related to the non-interest bearing loan from the Southern Ontario Development Program. These expenses are partially offset by interest revenues. The 2012 revenues were due to two 1 year redeemable term deposits purchased by the Company with proceeds from the private equity placement issuance of common shares on June 8, 2012. Interest on the term deposits compounds annually at a rate of 1.3% and 1.536%.

## Depreciation of property and equipment

Depreciation increased 4.6% to \$70,600 during the three months ended December 31, 2012 from \$67,500 during the same period in 2011. Depreciation increased 24.8% to \$294,600 during the year ended December 31, 2012 from \$236,100 during the same period in 2011. The increase is related primarily to additional production equipment put into operation in the third and fourth quarters of 2011.

# Amortization of Intangible Assets

The amortization expense increased \$1,000 to \$28,500 during the three months ended December 31, 2012 from \$27,500 during the same period in 2011. The amortization expense increased \$200 to \$114,000 during the year ended December 31, 2012 from \$113,800 during the same period in 2011.

#### Amortization of Patents and Trademarks

The amortization expense decreased \$21,700 to \$8,400 during the three months ended December 31, 2012 from \$30,100 during the same period in 2011. During the fourth quarter of 2011, the Company decided to amortize \$30,100 representing the full year amortization of patents, patent pending, and active trademarks. The amortization expense increased \$2,300 to \$32,400 during the year ended December 31, 2012 from \$30,100 during the same period in 2011.

Patent and Trademarks impairment occurred during the year ended December 31, 2012 in the amount of \$21,800 compared to \$258,200 during the same period in 2011. The impairment charge is related to unfilled or abandoned patents and trademarks which are deemed to provide no future economic benefit for the Company.

# Scientific Research and Experimental Development Tax Credit ("SRED")

The tax credits that relate to the deferred development costs are recorded on the balance sheet as a reduction of deferred development expenses. The tax credits that relate to research are recorded as a reduction in expenses on the statement of operations. The amount recorded as reduction to expenses for the three months ended December 31, 2012 was nil compared to (\$41,300) in 2011. The amount recorded as reduction to expenses for the year ended December 31, 2012 was nil compared to \$18,800 in 2011.

## Foreign Exchange Losses

The US dollar is the functional currency of the Company and is also the currency in which it presents these financial statements. The Company recognizes transactions in currencies other than the US dollar (foreign currencies) at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, it retranslates monetary items denominated in foreign currencies at the rates prevailing at that date. It does not retranslate non-monetary items measured in terms of historical cost in a foreign currency. It recognizes exchange differences on monetary items in profit or loss in the period in which they arise. For the three months ended December 31, 2012, CRS incurred a foreign currency loss of \$49,600 compared to a gain of \$57,400 in 2011. For the year ended December 31, 2012, CRS incurred a foreign currency gain of \$243,500 compared to a loss of \$91,700 in 2011.

# Loss before Income Taxes, Depreciation and Amortization ("EBITDA")

The negative EBITDA loss for the three months ended December 31, 2012 was (\$1,766,100) compared to (\$1,157,500) for the same period in 2011. The decrease in the foreign exchange, lower sales volumes and increased general and administrative expenses has decreased overall earnings by \$608,600 for the three months ended December 31, 2012 compared to 2011. The negative EBITDA loss for the year ended December 31, 2012 was (\$5,098,100) compared to (\$3,583,600) for the same period in 2011. The increase in fixed overhead, and administrative costs have contributed to a reduction in overall earnings by \$1,514,500 for the year ended December 31, 2012 compared to 2011.

# Net losses

As a result of the above activities, the net loss for the three months ended December 31, 2012 was (\$1,972,200), or (\$0.03) per share compared to a loss of (\$2,043,700), or (\$0.05) per share for the same period 2011. The \$71,500 positive change in net losses have been increased principally by a positive change in product development and patent impairment of \$692,400 for the three months ended December 31, 2012 compared to the corresponding period. The net loss for the year ended December 31, 2012 was (\$5,272,900), or (\$0.09) per share compared to a loss of (\$3,287,200), or (\$0.09) per share for the same period 2011. The \$1,985,700 negative change in net losses vs. 2011 have been partly caused by a negative change in warrant liability totalling \$823,600, by a negative change in the loss on disposal of fixed assets totaling \$255,400, and by an overall increase in selling and administrative expenses of \$891,900 for the year ended December 31, 2012 compared to the corresponding period.

# **Liquidity and Capital Resources**

The following table summarizes the key financial ratios of the Company.

(in U.S. dollars except for ratios)	December 31 2012	December 31 2011
Current Ratio	4.8:1	1.7:1
Cash	\$4,517,911	\$935,201
Available operating line	N/A	\$0
Net Working Capital	\$4,679,873	\$1,582,302
Total Assets	\$6,896,844	\$5,118,722
Total Debt	\$1,926,620	\$3,543,021
Total Equity	\$4,970,224	<i>\$1,575,701</i>
Debt to Equity Ratio	0.39:1	2.25:1

In accordance with International Accounting Standards ("IAS"), warrants issued for cash and denominated in CAD dollars are classified as a liability and stated at fair value on the statement date. The value of warrants included in total debt obligations (above) is:

	December 31	December 31
(in U.S. dollars)	2012	2011
Derivative liability – Warrants	\$224,685	\$832,860

Total funding received from the Southern Ontario Development Program (SODP) was CAD \$667,036. The contribution amount is repayable in 60 equal monthly payments commencing August 1, 2011. No interest is payable on the outstanding balance of the contribution amount.

Due to the losses incurred by the Company in the current and previous years and negative cash flows from operating activities relating thereto, there may be significant doubt with respect to the Company's ability to continue as a going concern. Management closely monitors the Company's current cash position and the short-term and long-term cash requirements. The Company is in a volatile market place that could generate significant orders for their LED products. The Company may be required to obtain additional funding to take advantage of the market opportunities. If additional funding is required, an issuance of common stock or a commitment to issue common stock will most likely be a component of the funding.

#### Cash Flows

During the period ended December 31, 2012, CRS experienced negative cash flows used in operations of (\$4,089,907) compared to a negative cash flow of (\$3,528,448) for the same period in 2011. Reduction of inventory and deposits and prepaid expenses partially offset higher losses. The Company invested \$236,383 in tooling and other capital equipment, development costs and patents in the year ended December 31, 2012 compared to \$1,050,961 in the prior year. The Company's various financing activities generated \$7,898,375 in cash flow for the year ended December 31, 2012 compared to \$5,173,869 in the same period last year. The increase during the second quarter of 2012 is mainly attributable to the June 8, 2012 private placement offering generating gross proceeds of CAD \$8,880,000

# **Outstanding Share Data**

As at December 31, 2012 the Company had the following items issued and outstanding:

Common shares: 71,399,844

Stock options: 1,384,169

				Weighted-	Weighted-
				average	average
			Number	remaining	exercise price
Range of ex	ercise prices	(CAD\$)	outstanding	contractual life	(CAD\$)
•	0.28	\$0.48	810,836	23.28 months	\$0.33
	0.58	\$0.59	573,333	29.44 months	\$0.58
Total			1,384,169	25.83 months	\$0.44

<sup>1,350,837</sup> options are exercisable as at December 31, 2012. The weighted average exercise price of these options is CAD \$0.44.

As at April 19, 2013 the Company had the following items issued and outstanding:

Common shares: 71,399,844

Stock options: 5,694,170

				Weighted-	Weighted-
				average	average
			Number	remaining	exercise price
Range	of exercise prices	s (CAD\$)	outstanding	contractual life	(CAD\$)
	\$0.24	\$0.48	5,160,836	54.44 months	\$0.25
	\$0.58	\$0.59	533,334	12.51 months	\$0.58
Total			5,694,170	50.52 months	\$0.28

<sup>1,350,837</sup> options are exercisable as at April 18, 2013. The weighted average exercise price of these options is CAD \$0.44.

#### Charitable options:

In March 27, 2008, charitable options to purchase 66,486 common shares were granted to an eligible charitable organization. These options are exercisable at CAD \$0.30 per share with an expiry date as of March 27, 2018.

# Agent options:

As compensation for services related to the April 28, 2011 offering, the Company issued a total of 530,022 non-transferable compensation options to the lead agents. Each option entitles the agent to subscribe for one common share unit at a price of CAD \$0.55 until October 28, 2012. These options expired unexercised.

# **Commitments and Contingencies**

Due to the nature of the business, the Company may have unspecified contingent liabilities that are not known to the Company at the end of the year. The Company will recognize contingent liabilities in a future period when they become known to the Company.

The Company has the following commitments outstanding:

 The Company signed an exclusive license agreement with Eveready Battery Company, Inc. (the "Exclusive Agreement"), a subsidiary of Energizer Holdings, Inc., for the Company to manufacture a suite of LED lighting products under the brand name Energizer. The term of the Exclusive Agreement is from January 1, 2011 to December 31, 2015.

In accordance with the Exclusive Agreement, the minimum guaranteed royalty to be paid by the Company over the remaining term thereof is as follows:

<u>Year</u>	Minimum Guaranteed Royalty
2013	\$ 592,500
2014	756,000
2015	836,000

2. The Company signed a service agreement with DBA Tenzing Managed IT Services, for the Company to establish offsite IT infrastructure and related management services. The services primarily relate to administration of the supplied infrastructure, network availability, data backup and archiving. The term of the agreement is from December 12, 2011 (deployment date) to February 28, 2015.

In accordance with the Agreement, the service cost to be paid by the Company over the remaining term thereof is as follows:

<u>Year</u>	IT Hosting Fees
2013	\$ 42,955
2014	42,955
2015	7,159

3. The Company signed a service agreement with Niagara Regional Broadband Network Limited, for the Company to establish high-speed fiber optic network bandwidth and related management services. The services primarily relate to the maintenance of the supplied fiber optic network and network availability for the Welland plant. The term of the agreement is from April 1, 2011 (deployment date) to March 31, 2016.

In accordance with the Agreement, the service cost to be paid by the Company over the remaining term thereof is as follows:

<u>Year</u>	IT Hosting Fees	
2013	\$ 8,744	
2014	8,744	
2015	8,744	
2016	2,186	

4. The Company signed a service agreement with Activo Inc, for the Company to establish high-speed fiber optic network bandwidth and related management services. The services primarily relate to the maintenance of the supplied fiber optic network and network availability for the Richmond Hill office. The term of the agreement is from Aug 1, 2012 (deployment date) to June 30, 2016.

In accordance with the Agreement, the service cost to be paid by the Company over the remaining term thereof is as follows:

<u>Year</u>	IT Hosting Fees
2013	\$ 2,255
2014	2,255
2015	2,255
2016	1,128

 The Company signed a tenant lease agreement for the use of office space located at 9120 Leslie Street, Suite 102, Richmond Hill, Ontario. The tenant agreement covers general rent of office space, operating costs, utilities and realty taxes. The term of the agreement is from August 1, 2012 to July 31, 2015.

In accordance with the Agreement, the service cost to be paid by the Company over the remaining term thereof is as follows:

<u>Year</u>	<u>Rent</u>
2013	\$ 43,005
2014	43,617
2015	25,673

6. On September 19, 2012, the Company received a claim from an ex-employee claiming wrongful dismissal on August 28, 2012. The employee was made redundant as part of the rationalization process undertaken by the Company. Based on discussions with the Company's legal advisors, it has been determined that it is probable that the resolution of these contingencies could result in a payment by the Company and accordingly a provision based on managements' best estimates has been recorded in the trade and other payables in the Company's consolidated statements of financial position.

7. On December 28, 2012, GE Lighting Solutions, LLC ("GE") filed a lawsuit against the Company claiming CRS has infringed two GE patents and has asked for an Order to have CRS destroy all infringing products and related moulds, machine, tooling or other equipment used in their manufacture, to prevent CRS from importing, manufacturing, using, selling and/or offering all infringing products and to have CRS pay damages to GE, together with costs and prejudgment and post-judgment interest. The amount of the claim for damages and costs was not stipulated in the lawsuit. CRS denies any wrongdoing or infringement of any patent owned by GE, believes the claim to be without merit and intends to vigorously defend against the GE lawsuit. No accruals have been made as a result.

# **Off-Balance Sheet Arrangement**

The Company does not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future effect on the results of operations or financial condition of CRS including, without limitation, such considerations as liquidity and capital resources that have not previously been discussed.

# **Proposed Transactions**

CRS is not a party to any proposed transactions, other than the financing initiatives being pursued as described elsewhere in this document, which may have an effect on the financial condition, results of operations or cash flows or proposed asset or business acquisition or disposition.

# **Related Party Transactions**

Key management includes the Chief Executive Officer, Chief Administrative Officer, Chief Financial Officer, and the Former Chief Operating Officer. The compensation paid or payable to key management for services is as follows:

	December 31 2012	December 31 2011
Wages and benefits	483,100	356,013
Stock based compensation	84,363	124,482
	567,463	480,495

# **Critical Accounting Policies**

The accounting estimates considered to be significant to the Company include revenue recognition, the impairment of long lived assets such as intangible assets and patents and trademarks, the valuation of inventory, the decision to capitalize development costs, and the computation of share-based payments expense and warrants.

#### Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and its wholly-owned subsidiary, CRS Lighting (USA) Inc. Control is achieved where the Company has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary. All intercompany balances and transactions are eliminated upon consolidation.

# Revenue recognition

The Company measures revenue at the fair value of the consideration received or receivable, reducing revenue for estimated customer returns, rebates and other similar allowances. It recognizes revenue from the sale of goods when it satisfies the following conditions:

- it has transferred to the buyer the significant risks and rewards of ownership of the goods;
- it retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- it can measure the amount of revenue reliably;
- it is probable that the economic benefits associated with the transaction will flow to the Company;
   and
- it can measure the costs incurred or to be incurred in respect of the transaction reliably.

Specifically, the Company recognizes revenue from sales of child safety systems, LED lighting products that it manufactures, and lighting products that it buys and resells, when it ships the products to the customer and collectability is reasonably assured. Ownership transfers at the point of shipment from the Company's plant.

The Company manufactures custom lighting boards based on designs from a specific customer. Customers send parts to the Company to manufacture these boards; the Company does not record the cost of these parts in its accounts. It recognizes revenues when it ships the products to the customer and collectability is reasonably assured. Ownership again transfers at the point of shipment from the Company's plant.

The Company holds a contract with a specific customer which allows for return of un-sold product 180 days from the invoice date for either credit or exchange. The Company records a sale on all goods initially shipped to the customer and provides a provision against this inventory held by the customer until the 180 day period is satisfied.

# Cash and cash equivalents

Cash includes cash on hand and, when applicable, short-term, highly liquid deposits which are either cashable or with original maturities of less than three months at the date of their acquisition.

### Inventory

The Company records inventory at the lower of cost and estimated net realizable value. Costs include raw materials, incoming freight, duty, brokerage and non-recoverable taxes, and are assigned to inventories on a first-in first-out basis. Net realizable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale.

# Equipment, furniture and leaseholds

The Company records equipment, furniture and leaseholds at cost (including directly applicable taxes, freight-in and installation costs) less accumulated depreciation and accumulated impairment losses. Assets held under finance leases are included in this category and are depreciated on a straight-line basis over their estimated useful lives.

It recognizes depreciation to write off the cost of assets less their residual values over their estimated useful lives, using the following methods and rates:

Office furniture and equipment

Computer equipment

Vehicles

Production equipment

Tools, moulds and dies

Leasehold improvements

20% declining balance
20% declining balance
30% declining balance
30% declining balance
5 years straight-line

The Company reviews the estimated useful lives, residual values and depreciation method at each year end, accounting for the effect of any changes in estimate on a prospective basis.

# Finance lease obligations

Leases which effectively transfer substantially all of the risks and rewards of ownership to the Company are classified as finance leases and are accounted for as an acquisition of an asset and an assumption of an obligation at the inception of the lease, measured at the present value of the minimum lease payments to a maximum of the asset's fair value. The asset is depreciated in accordance with the Company's inherent depletion and depreciation policies.

#### Patents and trademarks

Patents and trademarks are stated at cost, which primarily consist of legal costs in relation to their applications. Patents and trademarks are amortized using the straight-line method over the estimated useful life of five years.

# Other intangible assets

Purchased software is stated at cost less accumulated amortization and impairment losses as is amortized on a declining balance basis of 30% per annum. The amortization method and estimated useful life are reviewed at least annually.

#### Research and development costs

Research and development costs include materials, direct salaries and benefits, administration, contracting, consulting and professional fees.

The Company recognizes expenditure on research activities as an expense in the period incurred. The Company recognizes an internally-generated intangible asset arising from development (or from the development phase of an internal project) if, and only if, it has demonstrated all of the following:

- the technical feasibility of completing the intangible asset so that it will be available for use or sale;
- the intention to complete the intangible asset and use or sell it;
- the ability to use or sell the intangible asset;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intancible asset; and
- the ability to measure reliably the expenditure attributable to the intangible asset during its development.

The amount the Company initially recognizes for internally-generated intangible assets is the sum of the expenditure incurred from the date when the intangible asset first meets these recognition criteria.

Subsequent to initial recognition, it reports these assets at cost less accumulated amortization and accumulated impairment losses. The assets recognized to date are being amortized on a straight-line basis over a five year period.

# Impairment of long-lived assets

At the end of each reporting period, the Company reviews the carrying amounts of its internally-generated intangible assets arising from development, patents and trademarks, equipment, furniture and leaseholds and assets under finance leases, to determine whether any indication exists that any of those assets have suffered an impairment loss as described in note 8. If any such indication exists, it estimates the asset's recoverable amount to determine the extent of the impairment loss (if any). Where it is not possible to estimate an individual asset's recoverable amount, the Company estimates the recoverable amount of the cash-generating unit ("CGU") to which the asset belongs. Where it can identify a reasonable and consistent basis of allocation, it also allocates corporate assets to individual cash-generating units, or otherwise allocates them to the smallest group of cash-generating units for which it can identify a reasonable and consistent allocation basis.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the Company discounts estimated future cash flows to their present value using a pre-tax discount rate. This rate reflects current market assessments of the time value of money and also reflects the risks specific to the asset (unless these risks are reflected in the estimates of future cash flows).

If the Company estimates an asset or cash-generating unit's recoverable amount to be less than its loss immediately in profit or loss. Where an impairment loss subsequently reverses, the Company increases the asset or unit's carrying amount to the revised estimate of its recoverable amount, without exceeding the carrying amount that would have been existed if no impairment loss had been recognized in prior years. It recognizes a reversal of an impairment loss immediately in profit or loss.

#### Impairment of long-lived assets, continued

Management evaluated whether there are any adverse qualitative factors in respect to long-lived assets indicating that they might be impaired. There were indicators of impairment such as a significant decrease in gross margin relating to increases in inventory input costs of raw materials, labor and overhead, a significant decrease in commercial sales of LED lighting products. Management therefore determined the recoverable amount of its overall CGU based on value in use using three year cash flow projections with a long term budgeted average gross margin of 35% and a pre-tax discount rate of 12.8%. Management allocated the equipment, furniture, leaseholds and assets under finance leases along with its intangible assets arising from development, computer software, patents and trademarks to the most strongly correlated CGU and compared the carrying amounts of each to the present value of its recoverable amount. As a result, the Company recognized an impairment loss of \$NIL (2011 - \$455,977) in respect of the deferred development costs.

#### Foreign currency translation

The US dollar is the functional currency of the Company and is also the currency in which it presents these financial statements. The Company recognizes transactions in currencies other than the US dollar (foreign currencies) at the rates of exchange prevailing at the dates of the transactions. At the end of each reporting period, it retranslates monetary items denominated in foreign currencies at the rates prevailing at that date. It does not retranslate non-monetary items measured in terms of historical cost in a foreign currency. It recognizes exchange differences on monetary items in profit or loss in the period in which they arise.

#### Loss per share

The Company calculates basic loss per share by dividing the loss for the year by the weighted average number of common shares outstanding during the year. It calculates diluted loss per share in a similar manner, except that it increases the weighted average number of common shares outstanding, using the treasury stock method, to include common shares potentially issuable from the assumed exercise of stock options and other instruments, if dilutive. In the Company's case, these potential issuances are "anti-dilutive" as they would decrease the loss per share; consequently, the amounts calculated for basic and diluted loss per share are the same.

#### Stock-based compensation

The Company measures equity-settled share-based payments to employees and others who provide similar services, issued under the stock option plan described in note 16, at the fair value of the equity instruments at the grant date. For options granted to consultants, the same method of valuation is used unless the value of services provided is more readily determinable. It calculates the fair value using the Black-Scholes option valuation model and expenses this amount on a straight-line basis over the vesting period, based on the Company's estimate of equity instruments that will eventually vest, crediting the amounts to other paid-in capital. It revises its estimate of the number of equity instruments expected to vest at the end of each reporting period, recognizing the impact of revising the original estimates, if any, in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to other paid-in capital. When options are exercised, the Company credits the proceeds, together with the amount originally credited to other paid-in capital, to share capital.

#### Income taxes

Income tax expense represents the sum of the tax currently payable and deferred tax.

The Company bases the tax currently payable on its taxable profit for the year. Taxable profit differs from profit as reported in the statement of loss and comprehensive loss because of items of income or expense taxable or deductible in other years and items that are never taxable or deductible. The Company calculates its liability for current tax using tax rates that have been enacted or substantively enacted by the end of the reporting period.

It also recognizes deferred tax on temporary differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in computing taxable profit or loss. It generally recognizes deferred tax liabilities for all taxable temporary differences, and generally recognizes deferred tax assets for all deductible temporary differences to the extent it is probable that taxable profits will be available against which those deductible temporary differences can be utilized. The

#### **Income Taxes, continued**

Company reviews the carrying amount of deferred tax assets at the end of each reporting period and reduces them to the amount it expects to be recovered. It measures deferred tax assets and liabilities at the tax rates it expects to apply in the period when the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

#### Government assistance

The Company makes periodic applications for financial assistance under available government incentive programs including grants, low interest loans and tax credits, related to purchasing equipment and to other expenditures. The Company recognizes government assistance on an accrual basis when it has completed all requirements to earn the assistance and receipt is reasonably assured. It reflects government grants relating to capital expenditures as a reduction of the cost of such assets, and reflects government grants relating to operating expenses as a reduction of the expense. Non-interest bearing loans are discounted at market lending rates and accretion expense is recorded as a financing cost in the period incurred. As such, all costs are expensed as incurred and are recorded as a component of interest expense.

#### **Provisions**

The Company recognizes a provision when it has a present obligation (legal or constructive) as a result of a past event, it is probable it will be required to settle the obligation, and it can make a reliable estimate of its amount. The amount it recognizes as a provision is its best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the surrounding risks and uncertainties. Where it measures a provision using the cash flows estimated to settle the present obligation, the carrying amount is the present value of those cash flows, calculated using a pre-tax discount rate reflecting the risks specific to the liability. The Company adjusts the liability at the end of each reporting period for the unwinding of the discount rate and for changes to the discount rate or to the amount or timing of the estimated cash flows underlying the obligation.

#### **Financial instruments**

The Company recognizes a financial asset or financial liability when it becomes a party to the instrument's contractual provisions. It initially measures financial assets and financial liabilities at their fair value, adding or deducting directly attributable transaction costs (except for transaction costs directly attributable to acquiring financial assets or financial liabilities at fair value through profit or loss, which it recognizes immediately in profit or loss).

The Company recognizes a financial asset or financial liability when it becomes a party to the instrument's contractual provisions. It initially measures financial assets and financial liabilities at their fair value, adding or deducting directly attributable transaction costs (except for transaction costs directly attributable to acquiring financial assets or financial liabilities at fair value through profit or loss, which it recognizes immediately in profit or loss).

The Company's financial instruments and their classifications, described further below, are as follows:

Financial assets:	Classification:			
Cash and cash equivalents	Loans and receivables			
Accounts receivable	Loans and receivables			
Government incentives receivable	Loans and receivables			
Financial liabilities:	Classification:			
Bank indebtedness, trade and other payables, notes payable,				
Debt and finance lease obligations	Other financial liabilities			
Debt and infance lease obligations	Other infancial habilities			

#### Financial assets

The Company recognizes and derecognizes all financial assets on the trade date. It derecognizes a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of its ownership to another entity. It classifies financial assets into the following specified categories: financial assets 'at fair value through profit or loss' (FVTPL), 'held-to-maturity' investments, 'available-for-sale' financial assets and 'loans and receivables'. It determines the classification at the time of initial recognition, depending on the nature and purpose of the financial assets. The Company does not currently have any financial assets in the FVTPL held-to-maturity or available-for-sale categories.

The Company measures financial assets at FVTPL at fair value, recognizing any gains or losses arising from this measurement in profit or loss. It measures loans and receivables at amortized cost using the effective interest method, less any impairment, except for short-term receivables for which recognizing interest would be immaterial. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all transaction costs and other premiums or discounts) through the instrument's expected life (or, where appropriate, a shorter period) to the net carrying amount on initial recognition. The Company assesses financial assets, other than those at FVTPL, for indicators of impairment at the end of each reporting period. For financial assets carried at amortized cost, the amount of any impairment loss is the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate. Trade receivables are discounted by an allowance for doubtful accounts which reflects the net realizable value.

#### Financial liabilities

The Company classifies financial liabilities as either financial liabilities 'at FVTPL' or 'other financial liabilities'.

Financial liabilities classified as other financial liabilities are initially recognized at fair value less directly attributable transaction costs. After initial recognition, other financial liabilities are subsequently measured at amortized cost using the effective interest method.

Financial liabilities classified as FVTPL include financial liabilities held-for-trading and financial liabilities designated upon initial recognition as FVTPL. Derivatives, including separated embedded derivatives, are also classified as held-for-trading unless they are designated as effective hedging instruments. Transaction costs on financial liabilities classified as FVTPL are expensed as incurred. Fair value changes on financial liabilities classified as FVTPL are recognized in profit or loss.

At the end of each reporting period subsequent to initial recognition, financial liabilities at FVTPL are measured at fair value, with changes in fair value recognized directly in profit or loss. The net gain or loss recognized in income or loss excludes any interest paid on the financial liabilities.

The Company classifies its financial instruments according to a three level hierarchy that reflects the significance of the inputs used in making the fair value measurements. The three levels of fair value hierarchy are as follows:

- Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities;
- Level 2 Inputs other than quoted prices that are observable for assets and liabilities, either directly or indirectly; and
- Level 3 Inputs for assets or liabilities that are not based on observable market data.

The Company's derivative liability – warrants is classified within level 3 of the fair value hierarchy.

## Derecognition of financial assets and liabilities

Financial assets are derecognized when the rights to receive cash flows from the assets expire or the financial assets are transferred and the Company has transferred substantially all the risks and rewards of ownership of the financial assets. On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. Financial liabilities are derecognized when the obligation specified in the relevant contract is discharged, cancelled or expires. The difference between the carrying amount of the financial liability derecognized and the consideration paid and payable is recognized in profit or loss.

# Measurement uncertainty

Preparing financial statements in conformity with IFRS requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the end of the reporting period and the reported amounts of revenues and expenses during the reporting period. Items affected by significant estimates include, but are not limited to, the allowance for doubtful accounts receivable, the allowance for obsolete inventory, the useful lives of tangible and intangible assets, and the assumptions used in the assessment of impairment of long term assets. In all these cases, actual results could differ from the estimates that the Company used.

# Accounting standards issued but not yet effective

Certain pronouncements were issued by the IASB that are mandatory for accounting periods beginning after January 1, 2013 or later periods.

The following new standards, amendments and interpretations, that have not been early-adopted in these financial statements, may have an effect on the Company's future results and financial position:

# IFRS 9, Financial Instruments ("IFRS 9):

In October 2010, the IASB issued IFRS 9. IFRS 9, which replaces IAS 39, Financial Instruments: Recognition and Measurement, establishes principles for the financial reporting of financial assets and financial liabilities that will present relevant and useful information to users of financial statements for their assessment of the amounts, timing and uncertainty of an entity's future cash flows. This new standard is effective for the Company's financial statements commencing January 1, 2015. The Company is assessing the impact of this new standard on its financial statements.

#### IFRS 10, Consolidated Financial Statement ("IFRS 10"):

In May 2011, the IASB issued IFRS 10. IFRS 10, Consolidated Financial Statements, which replaces the consolidated requirements of SIC-12 Consolidation – Special Purpose Entities and IAS 27 Consolidated and Separate Financial Statements, establishes principles for the presentation and preparation of consolidated financial statements when an entity controls one or more other entities. This new standard is effective for the Company's financial statements commencing January 1, 2013. The Company is assessing the impact of this new standard on its financial statements.

# IFRS 12, Disclosure of Interests in Other Entities ("IFRS 12"):

In May 2011, the IASB issued IFRS 12. IFRS 12, Disclosure of Interests in Other Entities, establishes new and comprehensive disclosure requirements for all forms of interests in other entities, including subsidiaries, joint arrangements, associates and unconsolidated structured entities. This new standard is effective for the Company's financial statements commencing January 1, 2013. The Company is assessing the impact of this new standard on its financial statements.

## Accounting standards issued but not yet effective, continued

# IFRS 13, Fair Value Measurement ("IFRS 13"):

In May 2011, the IASB issued IFRS 13. IFRS 13, Fair Value Measurement, replaces the fair value guidance contained in individual IFRSs with a single source of fair value measurement guidance. The standard completes the IASB's project to converge fair value measurement in IFRS and United States Generally Accepted Accounting Principles. This new standard is effective for the Company's financial statements commencing January 1, 2013. The Company is assessing the impact of this new standard on its financial statements.

# IAS 1, Presentation of Financial Statements ("IAS 1"):

In June 2011, the IASB amended IAS 1, Presentation of Financial Statements. This amendment retains the "one or two statement" approach to presenting the Statements of Income and Comprehensive Income at the option of the entity and only revises the way other comprehensive income/(loss) is presented. This new standard is effective for the Company's financial statements commencing January 1, 2012. The Company anticipates no change to its financial statements as a result of this new standard.

# **Financial Instruments**

# [a] Fair value

The carrying values of cash and cash equivalents, accounts receivable, government incentives receivable, trade and other payables and notes payable do not materially differ from their fair values given their short-term period to maturity. The fair values of bank indebtedness, finance lease obligations and debt obligations approximate carrying value as the instruments bear interest or are discounted at market rates.

# [b] Credit risk

The Company is exposed to credit risk in the event of non-performance by customers in paying outstanding trade accounts receivable. Three main customers represent 28.7%, 20.3% and 10.3% respectively of accounts receivable at December 31, 2012 (29.2%, 13.8% and 41.5% at December 31, 2011). The Company has purchased insurance from the Export Development Corporation to compensate for this risk in addition to monitoring the status of accounts on a regular basis.

Trade accounts receivable are past due when a customer fails to make a payment when contractually due. The Company specifically identifies customers with past due balance (over normal credit term) and provides for these accounts where appropriate. The following is an aging of trade accounts receivable:

		30-60	60-90	Over 90	
	Current	days	days	days	Total
December 31, 2012	\$162,403	\$89,909	\$103,009	\$130,587	\$485,908

## [c] Interest rate risk

The Company is exposed to interest rate risk on its short-term credit facilities and on a portion of its long-term debt, since the interest rate charged on these facilities fluctuates with the general level of interest rates. However, in management's opinion, this risk is not significant as the short term credit facilities do not represent a significant amount of financing.

# [d] Foreign currency risk

The Company is exposed to currency risk because it makes purchases and sales transacted in Canadian currency. The following accounts were denominated in Canadian dollars:

	December 31	December 31	
	2012	2011	
Cash and cash equivalents	4,392,331	577,855	
Trade accounts receivable	236,628	326,073	
Trade accounts payable	(60,481)	(733,788)	
Short-term notes payable	(32,256)	(37,538)	
Debt obligations	(669,832)	(699,586)	

At December 31, 2012 a 10% change in the average exchange rate between U.S. dollars and Canadian dollars would have resulted in a \$386,639 change on reported net loss and comprehensive loss for the year.

# **Risk and Uncertainties**

#### Risks Related to CRS' Business

# Failure of Business Strategy

There is no assurance that CRS' business strategy will succeed. The success of CRS' business strategy will depend on a number of factors. There is no assurance that CRS will be able to achieve its planned growth, that modifications to its strategy will not be required or that CRS will be able to effectively manage expanded operations and enhance profitability.

CRS has only recently begun the implementation of its business model involving the LED MR16, the LED PAR lamps, street lighting and contract manufacturing. CRS has a limited history of operations under this business model and upon which investors may base an assessment of its potential. There is no assurance that CRS' business model and proposed operations will be successful or that CRS will meet its stated business objectives.

#### Reliance on Channel Partners

CRS relies, in part, on channel partners as agents and distributors to expand distribution channels for its products and to grow its sales in indoor lighting, PAR lamps, street lighting and contract manufacturing. Failure by channel partners to expand CRS' customer and product base may have a material adverse effect on CRS' operating results. In the last two years, CRS has expanded into new business channels that are different from those that CRS has historically operated in. If CRS is unable to penetrate these new distribution channels to ensure its products are reaching the appropriate customer base, CRS' financial results may be impacted. In addition, if CRS successfully penetrates these new distribution channels, it cannot guarantee that customers will accept its products or that it will be able to manufacture and deliver them in the timeline established by its customers.

#### Management of Growth

CRS may face challenges managing its growth. CRS has experienced a period of significant growth over the past year that may challenge its management and other resources. CRS is also in the process of expanding its business to include additional product lines. In order to manage growth and change in business strategy effectively, CRS will continue to: expand sales, marketing and distribution; implement and improve operating and information technology systems; maintain adequate manufacturing facilities and equipment to meet customer demand; maintain a sufficient supply of component parts to support its growth; expand the skills and capabilities of current management team; add experienced senior level managers; attract and retain qualified people with experience in engineering, design, sales and marketing; and recruit and retain qualified manufacturing employees.

CRS expects to spend substantial amounts of money in supporting its growth and may have additional unexpected costs. CRS may not be able to expand quickly enough to exploit potential market opportunities. CRS' future operating results will also depend on expanding sales and marketing, research and development and administrative functions. If CRS cannot attract qualified people or manage growth and change effectively, its business, results of operations and financial condition could be adversely affected.

## Strategic Opportunities

CRS will evaluate strategic opportunities available to it for product, technology or business acquisitions. If CRS chooses to make acquisitions, it will face certain risks, such as failure of the acquired business to meet CRS' performance expectations, diversion of management attention, retention of existing customers of its current and acquired business, and difficulty in integrating the acquired business's operations, personnel and financial and operating systems into its current business. CRS may not be able to successfully address these risks. Any failure to successfully evaluate strategic opportunities and address risks or other problems that arise related to any acquisition could adversely affect CRS' business, results of operations and financial condition.

#### Risks Related to CRS' Operations

# Fluctuation of Operating Results and Margins

CRS has experienced significant fluctuation in revenue, earnings and margins over the past three years, and it may experience significant fluctuations in revenue, earnings and margins in the future. Historically, the prices of LED products have declined based on market trends. CRS attempts to maintain its margins by constantly developing improved or new products, which provide greater value and result in higher prices, or by lowering the cost of its existing LED products. If CRS is unable to do so, its margins will decline.

CRS' operating results and margins may vary significantly in the future due to many factors, including the following: average sales prices for its products declining at a greater rate than anticipated; fluctuations in foreign currency as more of its revenue may be in U.S. dollars; ability to develop, manufacture and deliver products in a timely and cost-effective manner; variations in the amount of usable product produced during manufacturing; ability to improve yields and reduce costs in order to allow lower product pricing without margin reductions; increased reliance on and ability to ramp up capacity at its production facility; ability to ramp up production of new products; ability to produce higher brightness and more efficient LED products that satisfy customer design requirements; ability to continue improving current products and develop new products to specifications that meet the evolving needs of customers; changes in demand for products and customers' products that may cause fluctuations in revenue and possible inventory obsolescence; raw material price fluctuations, including certain commodities consumed in the production process; effects of an economic slowdown on both consumer and non-consumer spending on products that incorporate CRS' products; changes in the competitive landscape, such as inventions of new technology, availability of higher brightness LED products, higher volume production and lower pricing from competitors; changes in the mix of products CRS sells, which may vary significantly; product returns or exchanges due to quality-related matters or improper use of products; changes in purchase commitments permitted under the contracts with large customers; changes in production capacity and variations in the utilization of that capacity: disruptions of manufacturing that could result from fire, flood, drought or other disasters, particularly in the case of the single production facility; changes in legislation, regulations, or tax or accounting rules or changes in their interpretation; and costs to protect the intellectual property rights. These or other factors could adversely affect CRS' future operating results and margins.

# Additional Financing Requirements and Access to Capital

CRS currently relies on revenue and borrowings to fund its daily operations and activities. If CRS is unable to generate sufficient operating cash flow or is unable to secure adequate debt or equity financing to cover its operating requirements, CRS' financial position may deteriorate. In addition, CRS may seek to obtain additional funds through a variety of sources including public or private equity or debt financing. There is no assurance that additional funding will be available if required, or that CRS will be able to establish any necessary banking arrangements or credit facilities, on acceptable terms or at all.

## Reliance on Key and Qualified Personnel

CRS currently relies on its management team to oversee its core research, marketing, business development, operational and financing activities. If CRS loses the services of any of its management team and is unable to engage suitable replacements on a timely and commercially viable basis, the business, operating results and financial condition of CRS may be materially adversely affected. The successful implementation of the business plan also depends on the identification, engagement, training and retention of qualified inside sales, marketing communications and pre-sales engineering personnel. Failure to obtain and retain such qualified personnel may have an adverse impact on CRS' business, financial condition and results of operations.

#### Competition

The LED lighting market is highly competitive and has evolving technology standards. Competition is expected to intensify with increasing demand for LED products in the marketplace and government support of the industry. CRS' success will depend, among other things, upon the establishment of the CRS brand and the demonstration to customers of the benefits of CRS' products. There is no assurance that other companies with greater financial and technological resources will not develop a similar business model with greater perceived benefits or that CRS will be able to compete successfully against existing competitors or future entrants into the market. These competitors may reduce average sales prices faster than CRS' cost reduction, and competitive pricing pressures may accelerate the rate of decline of CRS' average sales prices. Therefore, CRS' ability to provide higher performance LEDs at lower costs will be critical to its success. Competitors may also try to align with some of CRS' strategic customers. This could mean lower prices for CRS' products, reduced demand for its products and a corresponding reduction in CRS' ability to recover development, engineering and manufacturing costs. Competitors also could invent new technologies that may make CRS' products obsolete. Any of these developments could have an adverse effect on CRS' business, results of operations and financial condition.

# Intellectual Property

CRS' intellectual property consists of "know-how". CRS also keeps various trade secrets regarding its technology, marketing and other business operations. While CRS makes every effort to manage this information properly, there is no assurance that this information will not enter the public domain. Any unanticipated leak of such information or improper use of such information by a third party could have a material adverse effect on CRS' business, financial condition and results of operations.

CRS is in the process of applying for patents and may seek patent protection for its technology in the future. The patent protection that CRS may obtain for its technology may not be adequate. If CRS is unable to maintain protection from direct competition or if its patents are ineffective, CRS' business, financial condition and results of operations could be materially adversely affected.

In the future, CRS may have to defend against potential litigation in connection with intellectual property rights and obligations, which will likely require significant attention and resources and, regardless of the outcome, result in significant legal expenses, which will adversely affect CRS' results of operation and financial position unless covered by insurance or recovered from third parties.

#### Risks Related to CRS and its Business Generally

#### Credit risk

The Company is exposed to credit risk in the event of non-performance to pay outstanding trade accounts receivable. A bus manufacturer based in the United States, a LED lighting manufacturer based in Canada, and a major Canadian retailer represent 28.7%, 20.3% and 10.3% of the trade accounts receivable on December 31, 2012. The Company has purchased insurance from the export development corporation to compensate for this risk in addition to monitoring the status of accounts on a regular basis.

Trade accounts receivable are past due when a customer fails to make a payment when contractually due. The following is an aging of trade accounts receivable:

		30-60	60-90	Over 90	
	Current	days	days	days	Total
Year ended December 31, 2012	\$162,403	\$89,909	\$103,009	\$130,587	\$485,908
Year ended December 31, 2011	\$211,867	\$112,910	\$75,115	\$27,907	\$427,799

# Foreign Currency Risk

In any year CRS sells on average 63% of its products in U.S. dollars. On average in any year, approximately 40% of its expenses are incurred in U.S. dollars. When the value of the U.S. dollar changes to the value of the Canadian dollar, CRS can experience a foreign currency gain or loss on monetary items such as accounts payable and accounts receivable held by CRS during the period of change. CRS has not entered into any foreign currency derivative financial instruments; however, it may choose to do so in the future in an effort to manage or hedge the foreign exchange rate risk.

#### International Sales

CRS is subject to risks related to international sales. CRS expects that revenue from international sales will continue to represent the majority of its total revenue. International sales are subject to a variety of risks, including risks arising from currency fluctuations, tariffs, trade barriers, collection issues and taxes. International sales are subject to variability as prices become less competitive in countries with currencies that are low or are declining in value against the Canadian dollar and more competitive in countries with currencies that are high or increasing in value against the Canadian dollar. In addition, international sales are subject to numerous Canadian and foreign laws and regulations, including, without limitation, regulations relating to import-export control, and technology transfer restrictions. If CRS fails to comply with these laws and regulations, it could be liable for administrative, civil or criminal liabilities, and in the extreme case, its export privileges could be suspended, which could have a material adverse effect on CRS' business.

#### Rising Fuel Costs

CRS requires fuel in production and for transportation of purchased parts and shipments to customers. Fuel costs contribute to an increasing portion of CRS' operating costs and adversely impacted CRS' level of profitability. CRS will need to adopt measures to decrease the impact of high fuel costs. CRS may be able to reduce inbound freight costs by ordering parts in larger volumes. CRS also plans to ship to regional fulfillment centers in volume for distribution locally.

## LED Diode Manufacturers Producing End Products

Currently, very few LED diode manufacturers produce lighting products or LED light engines. The diode manufacturers sell batches of lights to LED engine manufacturers, who in turn sell the LED light engine to fixture manufacturers. A trend is emerging that LED diode manufacturers are developing LED light engines for direct sale to LED fixtures manufacturers, which may reduce CRS' market share and materially adversely affect CRS' business, financial position and results of operation. In addition, LED diode manufacturers are producing fully equipped fixtures to the end users. CRS can deal with this risk by producing low cost, high quality light engines and end user fixtures. CRS is positioning itself, through vertical marketing, to end user industry sectors.

## Customers Producing Own LED Light Engines

Existing or future customers may decide to produce LED light engines for their own products, which may reduce CRS' market share and materially adversely affect CRS' business, financial position and results of operation. The risk may not be that significant due to the complexity of the manufacturing and assembly of light engines. In addition, a customer's volume may not justify the equipment and tooling costs.

# Development and Acceptance of New Products

CRS' operating results are substantially dependent on the development and acceptance of new products based on CRS' technology. CRS' future success may depend on its ability to develop new and lower cost solutions for existing and new markets and for customers to accept those solutions. CRS must introduce new products in a timely and cost-effective manner, and it must secure production orders for those products from its customers. The development of new products is a highly complex and lengthy process. The successful development and introduction of these products depends on a number of factors, including the following: achievement of technology breakthroughs required to make commercially viable devices; the accuracy of predictions of market requirements and evolving standards; acceptance of new product designs; acceptance of new technology in certain markets; availability of qualified research and development personnel; timely completion of product designs and development; ability to expand sales and influence key customers to adopt CRS' products; ability to develop repeatable processes to manufacture new products in sufficient quantities and at low enough costs for commercial sales; CRS' customers' ability to develop competitive products incorporating its products; and acceptance of CRS' customers' products by the market. If any of these or other factors become problematic, CRS may not be able to develop and introduce these new products in a timely or cost-effective manner.

# Expansion Into New Markets

As a result of CRS' entry into and continued expansion into new markets, such as LED MR16 sales, its traditional customers may reduce orders. Through organic growth, CRS has moved into and continues to expand in new markets, such as LED MR16 and LED streetlights, where some of its current customers may now perceive CRS as a competitor. In response, CRS' customers may reduce their orders for CRS' products. This reduction in orders could occur faster than CRS' sales growth in these new markets, which could adversely affect CRS' business, results of operations and financial condition.

#### Market Share

Although the emerging and rapidly expanding LED lighting market holds significant opportunities, there is no assurance that CRS will achieve adequate market presence or market share required to achieve profitable operations.

#### Sourcing Automation Equipment

CRS requires equipment to reduce manpower costs per unit. If suitable equipment is not located, CRS can mitigate the risk by using additional manpower. CRS will need to control costs in the other areas of the manufacturing process to offset the additional manpower costs.

## **Customer Demand and Capacity**

CRS' results of operations, financial condition and business would be harmed if it were unable to balance customer demand and capacity. As customer demand for CRS' products, particularly new products, changes, CRS must be able to ramp up or adjust its production capacity to meet demand. CRS will be taking steps to address its manufacturing capacity needs for its products. If CRS is not able to increase its capacity or if CRS increases its capacity too quickly, its business and results of operations could be adversely impacted. If CRS experiences delays or unforeseen costs associated with adjusting its capacity levels, it may not be able to achieve its financial targets.

#### **Production Yields**

Variations in CRS' production yields impact CRS' ability to reduce costs and could cause margins to decline and operating results to suffer. All of CRS' products are manufactured using technologies that are highly complex. The number of usable items, or yield, from the production processes may fluctuate as a result of many factors, including but not limited to the following: variability in the process repeatability and control; contamination of the manufacturing environment; equipment failure, power outages or variations in the manufacturing process; lack of consistency and adequate quality and quantity of piece parts; losses from human errors; defects in packaging; and any transitions or changes in the production process, planned or unplanned.

If the yields decrease, CRS' costs could increase, CRS' margins could decline and CRS' operating results would be adversely affected. In the past, CRS has experienced difficulties in achieving acceptable yields on new products, which has adversely affected its operating results. CRS may experience similar problems in the future and it cannot predict when they may occur or their severity. In some instances, CRS may offer products for future delivery at prices based on planned yield improvements. Reduced yields or failure to achieve planned yield improvements could continue to significantly affect CRS' margins and operating results.

# Reliance on Suppliers

CRS relies on a few key suppliers for certain components, services and equipment used in manufacturing its products, including key materials and equipment used in critical stages of CRS' manufacturing processes. Although alternative sources generally exist for these items, qualification of many of these alternative sources could take up to three months or longer. Where possible, CRS is attempting to identify alternative sources for suppliers. CRS generally purchases these items with purchase orders, and has limited guaranteed supply arrangements with such suppliers. CRS does not control the time and resources that these suppliers devote to CRS' business and it cannot be sure that these suppliers will perform their obligations to CRS.

In the past, CRS has experienced decreases in its production yields when suppliers have varied from previously agreed upon specifications that have impacted CRS' cost of sales. Any delay in product delivery or other interruption or variation in supply from these suppliers could prevent CRS from meeting commercial demand for its products. If CRS loses key suppliers, the key suppliers are unable to support CRS' demand or CRS is unable to identify and qualify alternative suppliers, CRS' manufacturing operations could be interrupted or hampered significantly.

# Government Funding

If government agencies discontinue or curtail their funding for CRS' research and development programs, CRS' business may suffer. Historically, government agencies have funded a significant portion of CRS' research and development activities. When the government changes budget priorities, CRS' funding has the risk of being redirected to other programs. If government funding is discontinued or reduced, CRS' ability to develop or enhance products could be limited, and its business, results of operations and financial condition could be adversely affected.

#### **Customer Satisfaction**

If CRS' products fail to perform or meet customer requirements, CRS could incur significant additional costs. The manufacture of products involves highly complex processes. CRS' customers specify quality, performance and reliability standards that CRS must meet. If CRS' products do not meet these standards, CRS may be required to replace or rework the products. In some cases, CRS products may contain undetected defects or flaws that only become evident after shipment. CRS has experienced product quality, performance or reliability problems from time to time. Defects or failures may occur in the future. If failures or defects occur, CRS could: lose revenue; incur increased costs, such as warranty expense and costs associated with customer support; experience delays, cancellations or rescheduling of orders for its products; write down existing inventory; or experience product returns.

#### **Taxes**

Changes in CRS' effective tax rate may have an adverse effect on its results of operations. CRS' future effective tax rates may be adversely affected by a number of factors including: changes in tax laws or interpretation of such tax laws and changes in generally accepted accounting principles; the jurisdiction in which profits are determined to be earned and taxed; the resolution of issues arising from tax audits with various authorities; changes in the valuation of deferred tax assets and liabilities; adjustments to estimated taxes upon finalization of various tax returns; increases in expenses not deductible for tax purposes, including write-offs of acquired in-process research and development; and changes in available tax credits.

Any significant increase in future effective tax rates could adversely impact net income for future periods. In addition, the determination of income tax provision requires significant judgment. To the extent CRS' income tax liability materially differs from CRS' income tax provisions and accruals due to factors, including the above, that were not anticipated at the time CRS estimated its tax provision, its net income or cash flows could be adversely affected.

# Catastrophic Events

Catastrophic events or geo-political conditions in North America may disrupt CRS' business. A disruption or failure of CRS' systems or operations in the event of a major earthquake, weather event, cyber-attack, terrorist attack or other catastrophic event could cause delays in completing sales or performing other mission-critical functions. A catastrophic event that results in the destruction or disruption to the supply chain or any of the critical business or information technology systems could severely affect CRS' ability to conduct normal business operations and, as a result, CRS' operating results could be adversely affected. Abrupt political change, terrorist activity and armed conflict pose a risk of general economic disruption in affected countries, which could result in an adverse effect on CRS' business and results of operations.