

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

OMB APPROVAL	
OMB Number:	3235-0716
Expires:	August 31, 2022
Estimated average burden hours per response	48.9697

FORM C UNDER THE SECURITIES ACT OF 1933

(Mark one.)

- Form C: Offering Statement
 Form C-U: Progress Update: _____
 Form C/A: Amendment to Offering Statement: _____
 Check box if Amendment is material and investors must reconfirm within five business days.
 Form C-AR: Annual Report
 Form C-AR/A: Amendment to Annual Report
 Form C-TR: Termination of Reporting

Name of issuer: Lumenco, Inc.

Legal status of issuer:

Form: corporation

Jurisdiction of Incorporation/Organization: Colorado

Date of organization): April 29, 2013

Physical address of issuer: 3600 Huron St. / Englewood, Colorado 80110

Website of issuer: http://lumenco.com

Name of intermediary through which the offering will be conducted: Silicon Prairie Online, LLC

CIK number of intermediary: 0001711770

SEC file number of intermediary: 007-00123

CRD number, if applicable, of intermediary: 289746

Amount of compensation to be paid to the intermediary, whether as a dollar amount or a percentage of the offering amount, or a good faith estimate if the exact amount is not available at the time of the filing, for conducting the offering, including the amount of referral and any other fees associated with the offering:
See attached Schedule of Fees

Any other direct or indirect interest in the issuer held by the intermediary, or any arrangement for the intermediary to acquire such an interest:

0

Type of security offered: Preferred Stock

Target number of securities to be offered: 50,000

Price (or method for determining price): 1.00

Target offering amount: \$50,000.00

Oversubscriptions accepted: Yes No

If yes, disclose how oversubscriptions will be allocated: Pro-rata basis First-come, first-served basis

Other – provide a description: _____

Maximum offering amount (if different from target offering amount): 250,000

Deadline to reach the target offering amount: December 31, 2022

NOTE: If the sum of the investment commitments does not equal or exceed the target offering amount at the offering deadline, no securities will be sold in the offering, investment commitments will be cancelled and committed funds will be returned.

Current number of employees: 6

Total Assets:	Most recent fiscal year-end: <u>489,019</u>	Prior fiscal year-end: <u>397,111</u>
Cash & Cash Equivalents:	Most recent fiscal year-end: <u>333,628</u>	Prior fiscal year-end: <u>74,224</u>
Accounts Receivable:	Most recent fiscal year-end: <u>44,367</u>	Prior fiscal year-end: <u>214,845</u>
Short-term Debt:	Most recent fiscal year-end: <u>888,787</u>	Prior fiscal year-end: <u>653,133</u>
Long-term Debt:	Most recent fiscal year-end: <u>408,784</u>	Prior fiscal year-end: <u>539,532</u>
Revenues/Sales	Most recent fiscal year-end: <u>1,955,789</u>	Prior fiscal year-end: _____
Cost of Goods Sold:	Most recent fiscal year-end: <u>175,123</u>	Prior fiscal year-end: <u>206,733</u>
Taxes Paid:	Most recent fiscal year-end: _____	Prior fiscal year-end: _____
Net Income:	Most recent fiscal year-end: <u>-149,956</u>	Prior fiscal year-end: _____

Using the list below, select the jurisdictions in which the issuer intends to offer the securities:

AL, AK, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY, B5, GU, PR, VI, 1V

SIGNATURE

Pursuant to the requirements of Sections 4(a)(6) and 4A of the Securities Act of 1933 and Regulation Crowdfunding (Â§ 227.100 et seq.), the issuer certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form C and has duly caused this Form to be signed on its behalf by the duly authorized undersigned.

Lumenco, Inc.
(Issuer)
By
/s/ Mark Raymond President/CEO
(Signature and Title)

Pursuant to the requirements of Sections 4(a)(6) and 4A of the Securities Act of 1933 and Regulation Crowdfunding (Â§ 227.100 et seq.), this Form C has been signed by the following persons in the capacities and on the dates indicated.

/s/ Mark Raymond
(Signature)
President/CEO
(Title)
June 22nd, 2022
(Date)

THE COMPANY

1. Name of issuer: Lumenco, Inc.

ELIGIBILITY

2. Check this box to certify that all of the following statements are true for the issuer:

- Organized under, and subject to, the laws of a State or territory of the United States or the District of Columbia.
- Not subject to the requirement to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934.
- Not an investment company registered or required to be registered under the Investment Company Act of 1940.
- Not ineligible to rely on this exemption under Section 4(a)(6) of the Securities Act as a result of a disqualification specified in Rule 503(a) of Regulation Crowdfunding. (For more information about these disqualifications, see Question 30 of this Question and Answer format).
- Has filed with the Commission and provided to investors, to the extent required, the ongoing annual reports required by Regulation Crowdfunding during the two years immediately preceding the filing of this offering statement (or for such shorter period that the issuer was required to file such reports).
- Not a development stage company that (a) has no specific business plan or (b) has indicated that its business plan is to engage in a merger or acquisition with an unidentified company or companies.

INSTRUCTION TO QUESTION 2: If any of these statements is not true, then you are NOT eligible to rely on this exemption under Section 4(a)(6) of the Securities Act.

3. Has the issuer or any of its predecessors previously failed to comply with the ongoing reporting requirements of Rule 202 of Regulation Crowdfunding? Yes No

Explain: _____

PRINCIPAL SECURITY HOLDERS

6. Provide the name and ownership level of each person, as of the most recent practicable date, who is the beneficial owner of 20 percent or more of the issuer's outstanding voting equity securities, calculated on the basis of voting power.

Name of Holder	No. and Class of Securities Now Held	% of Voting Power Prior to Offering
<u>Mark Raymond</u>	<u>Common Stock</u>	<u>41%</u> %
<u>Hector Porras</u>	<u>Common Stock</u>	<u>24%</u> %
<u>Mike Acks</u>	<u>Common Stock</u>	<u>11%</u> %
<u>Rick Keister</u>	<u>Common Stock</u>	<u>4%</u> %

INSTRUCTION TO QUESTION 6: The above information must be provided as of a date that is no more than 120 days prior to the date of filing of this offering statement.

DIRECTORS OF THE COMPANY

4. Provide the following information about each manager (and any persons occupying a similar status or performing a similar function) of the issuer:

Name: Rick Keister Dates of Service: 2013 - Present

Principal Occupation: Investor / Retired

Employer: N/A Dates of Service: _____

Employer's principal business: _____

List all positions and offices with the issuer held and the period of time in which the director served in the position or office:

Position: _____ Dates of Service: _____

Business Experience: List the employers, titles and dates of positions held during past three years with an indication of job responsibilities: leading sales/marketing efforts, product and process development, and business management.

Employer: N/A

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

Name: Mike Acks Dates of Service: 2013 - Present

Principal Occupation: Investor / Retired

Employer: N/A Dates of Service: _____

Employer's principal business: _____

List all positions and offices with the issuer held and the period of time in which the director served in the position or office:

Position: _____ Dates of Service: _____

Business Experience: List the employers, titles and dates of positions held during past three years with an indication of job responsibilities: leading sales/marketing efforts, product and process development, and business management.

Employer: N/A

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

Name: Mark Raymond Dates of Service: 2012 - Present

Principal Occupation: CEO / President

Employer: Lumenco, LLC Dates of Service: 2012 - Present

Employer's principal business: Security Solutions

List all positions and offices with the issuer held and the period of time in which the director served in the position or office:

Position: _____ Dates of Service: _____

Business Experience: List the employers, titles and dates of positions held during past three years with an indication of job responsibilities: leading sales/marketing efforts, product and process development, and business management.

Employer: Lumenco, LLC

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

Name: Hector Porras Dates of Service: 2012 - Present

Principal Occupation: Vice President

Employer: Lumenco, LLC Dates of Service: 2012 - Present

Employer's principal business: Security Solutions

List all positions and offices with the issuer held and the period of time in which the director served in the position or office:

Position: _____ Dates of Service: _____

Business Experience: List the employers, titles and dates of positions held during past three years with an indication of job responsibilities: leading sales/marketing efforts, product and process development, and business management.

Employer: Lumenco, LLC

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

OFFICERS OF THE COMPANY

5. Provide the following information about each officer (and any persons occupying a similar status or performing a similar function) of the issuer:

Name: Mark Raymond

Title: CEO / President Dates of Service: 2012 - Present

Responsibilities: _____

List any prior positions and offices with the issuer and the period of time in which the officer served in the position or office:

Business Experience: List any other employers, titles and dates of positions held during past three years with an indication of job responsibilities: N/A

Employer: _____

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

Name: Hector Porras

Title: Vice President Dates of Service: 2012 - Present

Responsibilities: _____

List any prior positions and offices with the issuer and the period of time in which the officer served in the position or office:

Business Experience: List any other employers, titles and dates of positions held during past three years with an indication of job responsibilities:

Employer: _____

Employer's principal business: _____

Title: _____ Dates of Service: _____

Responsibilities: _____

INSTRUCTION TO QUESTION 5: For purposes of this Question 5, the term officer means a president, vice president, secretary, treasurer or principal financial officer, comptroller or principal accounting officer, and any person routinely performing similar functions.

BUSINESS AND ANTICIPATED BUSINESS PLAN

7. Describe in detail the business of the issuer and the anticipated business plan of the issuer.

LUMENCO, INC.
NOTE REGARDING FORWARD LOOKING STATEMENTS

THE INFORMATION SET FORTH HEREIN CONTAINS “FORWARD-LOOKING INFORMATION”, INCLUDING “FUTURE-ORIENTED FINANCIAL INFORMATION” AND “FINANCIAL OUTLOOK”, UNDER APPLICABLE SECURITIES LAWS (COLLECTIVELY REFERRED TO HEREIN AS FORWARD-LOOKING STATEMENTS). EXCEPT FOR STATEMENTS OF HISTORICAL FACT, THE INFORMATION CONTAINED HEREIN CONSTITUTES FORWARD-LOOKING STATEMENTS AND INCLUDES, BUT IS NOT LIMITED TO, THE (I) PROJECTED FINANCIAL PERFORMANCE OF THE COMPANY; (II) COMPLETION OF, AND THE USE OF PROCEEDS FROM, THE SALE OF THE SHARES BEING OFFERED HEREUNDER; (III) THE EXPECTED DEVELOPMENT OF THE COMPANY’S BUSINESS, PROJECTS, AND JOINT VENTURES; (IV) EXECUTION OF THE COMPANY’S VISION AND GROWTH STRATEGY, INCLUDING WITH RESPECT TO FUTURE M&A ACTIVITY AND GLOBAL GROWTH; (V) SOURCES AND AVAILABILITY OF THIRD-PARTY FINANCING FOR THE COMPANY’S PROJECTS; (VI) COMPLETION OF THE COMPANY’S PROJECTS THAT ARE CURRENTLY UNDERWAY, IN DEVELOPMENT OR OTHERWISE UNDER CONSIDERATION; (VI) RENEWAL OF THE COMPANY’S CURRENT CUSTOMER, SUPPLIER AND OTHER MATERIAL AGREEMENTS; AND (VII) FUTURE LIQUIDITY, WORKING CAPITAL, AND CAPITAL REQUIREMENTS. FORWARD-LOOKING STATEMENTS ARE PROVIDED TO ALLOW POTENTIAL INVESTORS THE OPPORTUNITY TO UNDERSTAND MANAGEMENT’S BELIEFS AND OPINIONS IN RESPECT OF THE FUTURE SO THAT THEY MAY USE SUCH BELIEFS AND OPINIONS AS ONE FACTOR IN EVALUATING AN INVESTMENT.

THESE STATEMENTS ARE NOT GUARANTEES OF FUTURE PERFORMANCE AND UNDUE RELIANCE SHOULD NOT BE PLACED ON THEM. SUCH FORWARD-LOOKING STATEMENTS NECESSARILY INVOLVE KNOWN AND UNKNOWN RISKS AND UNCERTAINTIES, WHICH MAY CAUSE ACTUAL PERFORMANCE AND FINANCIAL RESULTS IN FUTURE PERIODS TO DIFFER MATERIALLY FROM ANY PROJECTIONS OF FUTURE PERFORMANCE OR RESULT EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS.

ALTHOUGH FORWARD-LOOKING STATEMENTS CONTAINED IN THIS PRESENTATION ARE BASED UPON WHAT MANAGEMENT OF THE COMPANY BELIEVES ARE REASONABLE ASSUMPTIONS, THERE CAN BE NO ASSURANCE THAT FORWARD-LOOKING STATEMENTS WILL PROVE TO BE ACCURATE, AS ACTUAL RESULTS AND FUTURE EVENTS COULD DIFFER MATERIALLY FROM THOSE ANTICIPATED IN SUCH STATEMENTS. THE COMPANY UNDERTAKES NO OBLIGATION TO UPDATE FORWARD-LOOKING STATEMENTS IF CIRCUMSTANCES OR MANAGEMENT’S ESTIMATES OR OPINIONS SHOULD CHANGE EXCEPT AS REQUIRED BY APPLICABLE SECURITIES LAWS. THE READER IS CAUTIONED NOT TO PLACE UNDUE RELIANCE ON FORWARD-LOOKING STATEMENTS.

CONFIDENTIAL BUSINESS PLAN



Lumenco

www.lumenco.com

May 12, 2022

Contact Information

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Executive Summary

Opportunity

Problem Summary

Lumenco is targeting two markets, the banknotes security features and EMI (electromagnetic interference) shielding.

a) **EMI:**

With growing advancements in wireless technology and increased signal sensitivity in devices, there has been a greater demand for shielding in avionic equipment.

The electromagnetic interference caused by induction or external radiation may affect the electrical circuit of the aircraft. Electromagnetic interference can cause temporary and permanent disruption in the circuit components. The induced electric fields may be intentional or unintentional but is a significant problem for advanced devices that degrade or entirely destroy the avionic equipment.

b) **Banknote Security Feature:**

Today, banknotes are high-tech products with numerous different security features distributed over well-defined security levels. “The key drivers determining the requirement for, and the type of, banknotes used around the world remain the need to provide security in the banknote ahead of the counterfeiter’s capabilities, the durability and efficiency of the banknote in circulation and the level of economic activity. Market demand for banknotes continues to grow on average at about 4 per cent annually although the rate varies around the world reflecting local circumstances.

Target Market / Competition

a) **EMI**

The **global EMI shielding** market size is projected to grow from USD 6.2 billion in 2021 to reach USD 7.7 billion by 2026; it is expected to grow at a CAGR of 4.4% from 2021 to 2026.

The growth of the EMI shielding market is majorly driven by surging demand for consumer electronics, increasing electromagnetic pollution, and ongoing field trials and pilot tests evincing the viability of 5G.

b) **Banknote Security Feature:**

There are currently around 357 billion banknotes in circulation worldwide. Their average circulation lifespan ranges from under 12 months to several years. About 150 billion banknotes are printed every year to replace the worn notes taken out of circulation. For example, the European Union is producing around 8 billion new banknotes a year.

Solution Summary

Lumenco has been a micro-optics company with a large patent portfolio in currency anti-counterfeiting, brand protection, lighting, solar, projection screens and most recently EMI. Lumenco has multi-year license agreements in brand protection, currency, and lighting providing minimum guarantees and much larger future revenues. Lumenco is just now coming out of pre revenue into revenue after about 9 years of development.

Lumenco's ownership in LenSys Sarl, a joint venture with Koenig and Bauer in Switzerland in the banknote anticounterfeiting space and projected future royalties of over \$50 million in the next 10 years.

Marketing Summary

Lumenco will use the capital to commercialize new anti-counterfeiting currency features owned by Lumenco but developed under a research program with the US Government, as well as exciting new lightweight electromagnetic shielding technologies developed for the aerospace industry.

Break-Even Summary

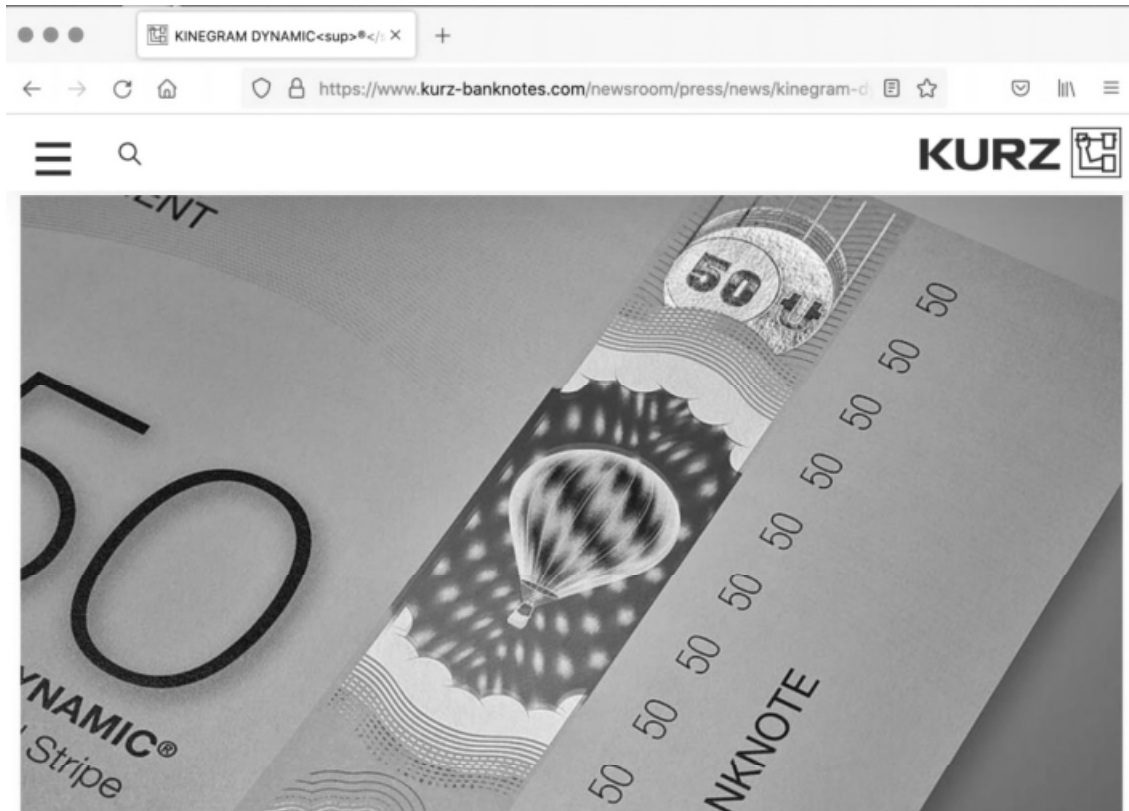
Current Overhead is roughly \$95,000 per month. Since revenues are mostly royalties, licensing and R and D currently break-even is about \$110-\$150,000 per month. Again, with additional capital to commercialize new opportunities Lumenco should cash flow well past break even.

Why Us?

Lumenco now has dozens of patents in several industries worldwide and has been profitable for the last few years, and more importantly has designed and built custom equipment and processes for these features.

- *Lumenco Websites*
 - www.lumenco.com
 - www.nanopixel.com
 - www.lumencoclarify.com

 - *Lumenco Partners & Licensees*
 - Brand Protection, Accesos Holográficos: <https://accesosholograficos.com.mx/>
 - Currency Joint Venture (LenSys Sarl) Partner, Koenig, and Bauer: <https://banknote-solutions.koenig-bauer.com/en/>
 - Currency JV Licensee, Leonard Kurz: <https://www.leonhard-kurz.com/>
 - Kurz New Licensed Feature (Lumenco tech): https://www.youtube.com/watch?v=M3Y_nNCHiMY
 - Lumenco Lighting Technology Licensee, Bixby International: <https://www.bixbyintl.com/>
 - Theater Light Diffusion Licensee, Rosco: <https://us.rosco.com/en>
 - Mirraviz -Direct throw laser screen technologies: <https://mirraviz.com/products/mirraviz-laser-tv-screen-projector?variant=41741052772520>
-



KINEGRAM DYNAMIC® – New Dynamics for Safer Banknotes

KURZ has been a global leader in banknote security for more than 30 years. Based on the proprietary KINEGRAM® origination technology, the portfolio of security effects and technologies is constantly advanced.

The latest development marks the ultimate combination of security and appearance: KINEGRAM DYNAMIC®, unveiled on February 16th, 2022, in a webinar hosted by KURZ, is a solution that takes banknote security to a new level. Lens-based security elements for banknotes combine striking deep-view effects with eye-catching movement and engaging colors. The resulting features are nothing short of a revolution in visual appearance and security.

Highly attractive and truly intuitive, the authenticity of banknotes can be verified at a glance, with the 3D effect of KINEGRAM DYNAMIC® virtually absorbing the viewer into the feature. Multiple colors add to the visual allure and the versatile design options. The technology combines the best of all worlds in one highly secure, intuitive and visually appealing security element.

To experience KINEGRAM DYNAMIC® in a short interview with our experts, [👉](#) please click here or [📧](#) contact our sales team for samples. More information on our [🌐](#) global references is available here.

KURZ is a globally leading supplier of banknote security elements, providing feature design, project consultancy, application expertise, as well as machine and stamping die technology. KURZ solutions are the essential element for banknote security.

KBA-NotaSys :: KBA-NotaSys and Lumenco launch LenSys joint-venture

www.kba-notasys.com/news-and-events/press-releases/kba-notasys-and-lumenco-launch-lensys-joint-venture/

CS6 Short-Circ. PVEducation What are th... wers | NLPIP LED Light. g Explained energysemix. 0slides.pdf FTP Performance SICGRAPH 2013 Web Mail VMware

KBA-NotaSys

TECHNOLOGY & SERVICE AS AN ART

COMPANY BANKNOTE PRINTING SECURITY PRINTING DESIGN SERVICES NEWS & EVENTS CONTACT

Press Releases

KBA-NotaSys and Lumenco launch LenSys joint-venture
10 December 2014

Lausanne, 10 December 2014. KBA-NotaSys S.A. of Lausanne, Switzerland and Lumenco Inc. of Englewood, CO, United States of America are pleased to announce that they are combining their technologies and expertise through the formation of a joint venture, LenSys Sarl, which will focus on the development, sales and marketing, of a new range of novel level-one security features.

The family of features proposed by LenSys combines Lumenco's patented micro lens optics with KBA-NotaSys' precise multi-color offset elements produced on the Super Simultan press. The strength of the feature is the easy recognition by the general public with stunning color and shape changing effects.

The offset element and its associated lens structure are designed and originated in combination to ensure both functionality and security. The combination of elements - the lenses themselves and the offset print enhance the security of the feature through the layered construction and at the same time provide unrivalled flexibility in banknote design even allowing the integration of the feature in an existing note design.

The offset element and its associated lens structure are designed and originated in combination to ensure both functionality and security. The combination of elements - the lenses themselves and the offset print enhance the security of the feature through the layered construction and at the same time provide unrivalled flexibility in banknote design even allowing the integration of the feature in an existing note design.

Eric Boissonnas, CEO of KBA-NotaSys, describes KBA-NotaSys' motivation to create this joint venture as: "Another step in positioning our Super Simultan technology as the most cost-efficient way of creating highly-secure level-one security features. The combination of Lumenco's expertise in micro lens technology and the improved Simultan technology will create very striking security features. We are thrilled to now be able to present this to the market and develop the features even further.

Mark Raymond and Hector Porras, founders of Lumenco, comment: "Lumenco's goal was to find a respected development and commercialization partner that understood the technical aspects of its technology and the potential of printed micro lenses integrated into banknotes.

KBA-NotaSys represents a solid partner that will allow Lumenco to commercialize its micro lens technologies at the highest level and we are very excited to have the best possible partner in the banknote industry."

The new company, LenSys Sarl, is registered in Switzerland and will be managed by a board composed of representatives from both KBA-NotaSys and Lumenco. The day-to-day operation of the company will be headed by Michael Blesovsky who has a long established track-record in the industry.

Media Contact

Gerben Van Wijk
Marketing Manager

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Financing

Financing Needed

Lumenco is looking for capital to commercialize banknote technology developed under contract with the Federal Reserve and BEP, as well as its newly tested lightweight EMI shielding for aircraft and satellites.

Sources of Funds

Lumenco has been reinvesting in technologies since inception (self-funding all development) and has done only one round of capital investment from outside sources in about 10 years. Lumenco now has fully developed technologies ready for market and requires more capital to fully commercialize these technologies and take them to market.

Use of Funds \$6,000,000

Total Proceeds	6,000,000
Net Proceeds of Offering	6,000,000
Legal related to Patents	145,000
Testing EMI Shielding	257,000
Testing New Currency tech	350,000
Sales Samples	85,000
Marketing	550,000
Equipment	2,427,000
Inventory	186,000
Debt retirement	700,000
Equity buy back LenSys Sarl	800,000
Working Capital	500,000
Total	6,000,000

Opportunity

Problem & Solution

A) EMI

Problem Worth Solving

With growing advancements in wireless technology and increased signal sensitivity in devices, there has been a greater demand for shielding in avionic equipment.

The electromagnetic interference caused by induction or external radiation may affect the electrical circuit of the aircraft. Electromagnetic interference can cause temporary and permanent disruption in the circuit components. The induced electric fields may be intentional or unintentional but is a significant problem for advanced devices that degrade or entirely destroy the avionic equipment. Thus, there has been a greater need for aircraft EMI shielding to save the electronics and prevent severe accidents that might occur due to electronic interference between the pilot and the connecting tower.

The **global EMI shielding** market size is projected to grow from USD 6.2 billion in 2021 to reach USD 7.7 billion by 2026; it is expected to grow at a CAGR of 4.4% from 2021 to 2026.

The growth of the EMI shielding market is majorly driven by surging demand for consumer electronics, increasing electromagnetic pollution, and ongoing field trials and pilot tests evincing the viability of 5G.

The global **Aircraft/Airspace EMI shielding market is projected to reach US\$ 993.0 million in 2024**. Increasing use of modern electronic equipment, advancement in EMI shielding technologies, and rising global aircraft fleet size are the major growth drivers of the market.

The market is segmented based on the aircraft type as Commercial Aircraft, Military Aircraft, Regional Aircraft, General Aviation, Helicopter, and UAV. **Commercial aircraft is expected to remain the growth engine** of the market during the forecast period.

The market is segmented as Equipment Shielding, Structural Shielding, and Bonding. **Equipment shielding is expected to remain the most dominant application segment** of the market during the forecast period, propelled by increasing shielding requirements for electrical equipment, avionics, and aircraft wiring and growing usage of electronic devices and digital systems in avionic systems.

Based on the product type, the market is segmented as Conductive Coatings & Paints, Laminates, Tapes & Foils, Cable Over braids, Conductive Gaskets, and others. Conductive coatings & paints are expected to remain the dominant product type in the market during the forecast period, whereas the laminates, **tapes & foils** segment is expected to witness the highest growth in the same period, driven by an ongoing replacement of metal parts with composite ones, owing to the advantage of excellent strength-to-weight ratio at a relatively low weight.

Global Aircraft/Airspace EMI Shielding Market Key Player

Some of the market participants identified across the value chain of global Aircraft/Airspace EMI Shielding market are:

- Glenair, Inc
- Parker Hannifin Corporation (Chomerics Division)
- W. L. Gore & Associates, Inc.
- The 3M Company
- Laird Plc
- PPG Industries, Inc.
- Simotec (Thailand) Co. Ltd.
- HEICO Corporation
- Henkel AG & Co. KGaA

Pricing of commercially available EMI Shielded films and Tapes

The price of EMI Shielding products depends on their shielding effectiveness requirements, applications, conductive material type, and volumes.

3M and Laird are the largest suppliers of EMI shielding tapes charge between \$170/m² and \$500/m² for their products. Usually, the tape dimensions are from 1" or 3" wide, ranging from 50ft to 100ft.

Parker Chomerics, the largest supplier of EMI shielding films, charges between \$200/m² and \$300/m² for their films.

In our case, the price will mostly depend on the metal and deposition type and the volumes. Roughly assuming that the cost of our microstructure EMI shielding film (12" wide, with a length of 2500ft) is \$10,000, we are talking about \$43/m², which gives us a relatively good profit margin with the selling price between \$200 and \$300/m².

Our Solution

EMI SHIELDING

Hi-Tech Application of Lumenco Technology



EMI (ElectroMagnetic Interference) Shielding is an essential concept to many devices as a protectant for critical components against electromagnetic fields. This is especially crucial for complex machines and assemblies in the aerospace and computing fields.

NASA lists the costs-per-pound to put a payload into orbit at rough \$10,000. As such, the ideal system for this involves an extremely lightweight material that disperses these fields effectively.

Lumenco recently lab-tested one of their experimental materials (patents pending) with very positive results. The material is a microstructured-film with a very thin metallized layer deposition coating. As this test was pursued to simply see if we are "in the ballpark", we did not expect such great results. The material was able to shield evenly across a large frequency range, where standard shielding has various peaks/valleys throughout the frequency bands. Our material is also significantly lighter (over 50% lighter) than the top competitors, which makes this approach highly attractive.

Proposed Proof of Concept Development Paths of Preparation Conductive Micro-Structured Film/Tape for Multiple EMI Shielding Applications

Solution One: ITO Sputter Deposition on multiple microfacet-based micro structured polypropylene film

ITO, or tin-doped indium-oxide, coatings used on optically clear polymer films are specially designed to reduce glare and enhance clarity in digital displays. The ITO coatings provide excellent electrical conductivity and optical transparency and are used as transparent electrodes in most display products.

These unique coatings can be deposited by reactive electron-beam evaporation or magnetron sputtering onto microcavities of micro structured, flexible films. ITO is robust and has a good sheet resistance range and high UV-Visible and Near IR transmission.

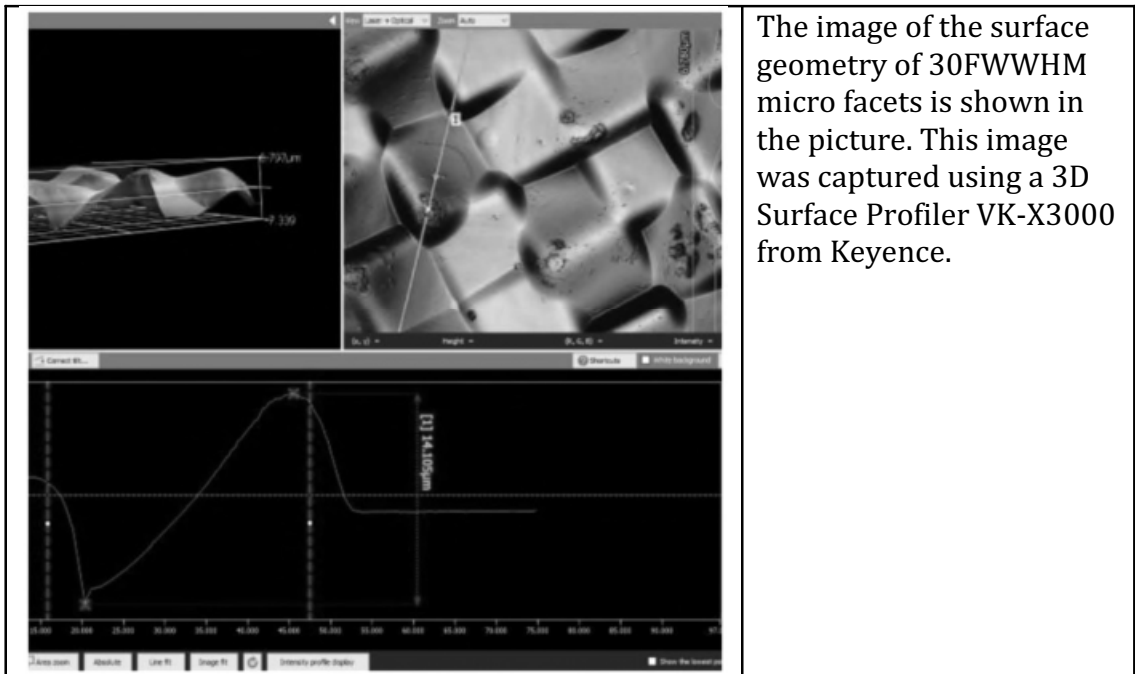
In addition, we can deposit other conductive metals like silver, chromium, and copper using evaporation, sputtered, or electron-beam deposition processes on different microstructure elements, including patterned and positive lens designs. However, the alternative metals are more expensive, heavier, and less transmissive than ITO.

Solution Two: Extrusion Embossing and/or Injection Molding of Conductive Plastics that have micro structured surface

Conductive plastics blend thermoplastic and conductive fillers that provide world-class shielding effectiveness and require no machining, plating, painting, or other added

processing steps. Depending on the application (gaskets, grounding products, EMI Shielding tapes, etc.) and EMI shielding requirements, a blend can be based on any lightweight thermoplastic polymer (like PP, PC, ABS, etc.) and a conductive filler like nickel-plated carbon fibers, nickel graphite powder, etc. Usually, the conductive masterbatch is a single component pellet system ready for injection molding or extrusion. These materials provide shielding effectiveness greater than 85 dB, mechanical durability, high electrical conductivity, and low weight.

The two largest suppliers of conductive plastics can provide the conductive masterbatches and plastic compounds for EMI shielding applications: Parker Chomerics and RTP.



The comparison technical data of competitive EMI shielding foils is shown in the table

Lumenco's micro structured EMI shielding copper film performing better and much lighter weight.

EMI Shielding Foil Type	Micro structured EMI Shielding copper film	EMI Shielding Copper Foil No. 3006	EMI Shielding Copper Foil C-18	EMI Shielding Amucor aluminum foil 4701
Supplier	Lumenco	Zippertubing	Lamart Corporation	Holland Shielding Systems
Total Film Thickness,	60 μm	33 μm	41.2 μm	38 μm
PET film thickness	50 μm	20.3 μm	23.4 μm	23 μm
Cast micro structured pattern	10 μm	n/a	n/a	n/a
Metal film thickness, μm	0.1 μm	12.7 μm	17.8 μm	12 μm
Weight per square meter	87g/m ²	175g/m ²	245g/m ²	68 g/m ²
Shielding Effectiveness at 100MHz	52	85	105	53
Elongation at Break	>5%	10%	>5%	>90%
Resistivity, $\mu\text{ohm. Cm}$	<2.5	<2.5	<2.5	2.7-2.9
Dielectric Strength, kV	>2	>2	5	>4

B) Banknote Security Feature

Problem Worth Solving

Today, banknotes are high-tech products with numerous different security features distributed over well-defined security levels. “The key drivers determining the requirement for, and the type of, banknotes used around the world remain the need to provide security in the banknote ahead of the counterfeiter’s capabilities, the durability and efficiency of the banknote in circulation and the level of economic activity. Market demand for banknotes continues to grow on average at about 4 per cent annually although the rate varies around the world reflecting local circumstances.

Our Solution

Under BEP contract, Lumenco developed a completely different algorithm and IP than what was licensed and used by both KURZ and KBBS. Over \$10 million dollars was spent on this technology by the BEP. The project was discontinued with the BEP due to capacity issues at the BEP in Dallas and DC.

This new algorithm and corresponding software have been tested and used for 6 years. It has full freedom to operate from any other micro lens technology in the market. To be clear the IP and software is not what was licensed to Lensys or Kurz.

The pixel mapping used to generate the images is a completely new approach, that combined with Lumenco’s proprietary high-res printing or high res demet technology can generate dramatic and sophisticated (hard to mimic) effects on paper bank notes. A thread product on a single denomination can require about 100,000 Km / month. High end products in this market are sold for \$160/ KM
Lumenco technology is ready for market.

Target Market / Competition

Market Size & Segments

Currency Anti-Counterfeiting

The currency anti-counterfeiting market is about a \$4 billion market per year, with about a dozen companies in the supply chain. The largest players in the market are G and D, Kurz,

Sicpa and Crane currency. Each of these companies represent more than \$500 million in annual sales. Kurz is the largest feature (non-thread provider) provider for anti-counterfeiting solutions and is a licensee of Lumenco technology through Lumenco's joint venture partner Koenig and Bauer and has just launched and commercialized Kinegram Dynamic, Lumenco technology after about \$5 million in commercialization costs.

Lumenco will focus its "Pixel Displacement" technology developed for the BEP in the thread market with manufacturing in Mexico and France. South American countries are being targeted (such as Brazil and Argentina). Lumenco is in discussion with the currency paper providers for these countries for supply into these countries. Potential current opportunities for these countries are more than \$3 million per month for this feature.

EMI Shielding

Per the above the market is estimated at \$6.2 billion for 2021 and expected to be over \$7 billion by 2025.

Our Solution

Unfair Competitive Advantages / Solving Unmet Needs

Lumenco's core competency revolves around creative abilities to that allow the creation of micro-optic solutions for industries from currency anti-counterfeiting to solar energy. From this foundation, Lumenco™ has generated a large IP portfolio with patents in light diffusion and management, anti-counterfeiting, micro mirror reflectors, screen technologies, thin film solar devices, and ultra-lightweight electromagnetic shielding for aircrafts and aerospace.

Marketing & Sales

Marketing Plan

Light Diffusion and Light Management

- Bixby International, Lumenco's lighting licensee with Lumenco's patented technologies is a 100+ year old company and is building both a marketing and sales team for lighting. Potential customers include Acuity Brands, Heil and others. Lumenco receives royalties and annual guarantees in that agreement.
- Rosco is already in the marketplace and Lumenco receives royalties on that technology.

Brand Protection (Nanopixel™ brand)

- Accesos Holográficos is our core licensee and is in Mexico City. They have sales offices throughout Mexico and South America and have a technology and royalty agreement with Lumenco, as well as a reciprocal manufacturing agreement for brand protection for Lumenco clients.
- Lumenco has several products and ongoing marketing efforts in the United States and has clients such as Colgate, Allergan, Diageo and others in the prototype stages as paying customers. Press releases, Zoom marketing emails and other promotions will continue.

Currency Anti-Counterfeiting

- Lumenco has a joint venture with Koenig and Bauer Banknote Solutions. K & B Solutions makes over 95% of the equipment used to produce banknotes worldwide and has every central bank in the world as a customer. With this reach, new features are being presented by the JV into the banknote area directly and through licensee Leonard Kurz. Kurz is the largest anti-counterfeiting feature provider in the world with features in more than 100 countries and is the exclusive feature provider for the Euro. As a licensee through Lumenco's JV, they have an aggressive marketing and sales operation worldwide as can be seen with Lumenco's licensed feature, Kinegram Dynamic https://www.youtube.com/watch?v=M3Y_nNCHiMY
- Lumenco New Technology "Pixel Displacement" developed under contract with the United States BEP. The BEP spent more than \$10 million developing this technology with Lumenco but is now completely owned by Lumenco. With the new success of Kinegram Dynamic, Lumenco has a great deal of credibility in the banknote arena. Several articles are coming out soon for Lumenco in currency News and other publications and several large, international companies are in talks with Lumenco to commercialize this technology for the banknote industry.

EMI Shielding

- Lumenco will begin to pursue an aggressive strategy of press releases, articles as PR for this new lightweight EMI shielding.
- Online advertising will also be a focus for EMI tapes, window and building coverings and so forth.
- Another specific target area will be the aerospace industry and associated publications.

Sales Plan

Lumenco's licensees in different sectors include dozens of salespeople in their key areas. However, Lumenco will take the lead in the new currency technologies and EMI shielding and will use raised capital to put a team together.

Operations

Locations & Facilities

Lumenco occupies an 8,000 square foot facility in Englewood, Colorado with lab, offices, warehouse, and manufacturing. Lumenco looks to move in about 12 months to a slightly larger, but less expensive facility in a different zone.

Technology

Software of all types including ray tracing software, interlacing software and optical design software has been written internally at Lumenco for years. The software is protected and proprietary for Lumenco and its licensees. Lumenco has an extensive IP portfolio per the below.

Case Number	Country	Subcase	Title	Application Status	Application Number	Filing Date	Patent Number	Issue Date
79906.001	AU	01	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	2013312883	4-Sep-13	2013312883	27-Jan-17
79906.001	CA	03	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	2,884,155	4-Sep-13	2,884,155	11-Apr-17
79906.001	CH	05	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	13835055.8	4-Sep-13	2893390	16-Nov-16
79906.001	CN	34	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	201380055465.0	4-Sep-13	ZL201380055465.0	26-Sep-17
79906.001	DE	05	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	13835055.8	4-Sep-13	602013014265.3	16-Nov-16
79906.001	EP	05	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Appealed	13835055.8	4-Sep-13	2893390	16-Nov-16
79906.001	FR	05	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	13835055.8	4-Sep-13	2893390	16-Nov-16
79906.001	GB	05	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	13835055.8	4-Sep-13	2893390	16-Nov-16
79906.001	HK	08	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	16100261.4	4-Sep-13	1212454B	16-Nov-16
79906.001	MX	13	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	MX/a/2015/002911	4-Sep-13	348176	5-Jun-17
79906.001	RU	77	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	2015112287	4-Sep-13	2621173	31-May-17
79906.001	US	00	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	14/017,415	4-Sep-13	9,132,690	15-Sep-15
79906.001	US	17	PIXEL MAPPING, ARRANGING, AND IMAGING FOR ROUND AND SQUARE-BASED MICRO LENS ARRAYS TO ACHIEVE FULL VOLUME 3D AND MULTI-DIRECTIONAL MOTION	Granted	14/820,861	7-Aug-15	9,701,150	11-Jul-17
79906.002	AU	01	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	2014315695	27-Feb-14	2014315695	9-May-19
79906.002	CA	03	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	2923132	3-Mar-16	2923132	8-Sep-20
79906.002	CN	34	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	201480060437.2	27-Feb-14	ZL201480060437.2	7-May-19
79906.002	CN	82	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	201810338774.3	27-Feb-14	201810338774.3	21-Apr-20
79906.002	EP	05	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Published	14842836	27-Feb-14		

Case Number	Country	Subcase	Title	Application Status	Application Number	Filing Date	Patent Number	Issue Date
79906.002	JP	10	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	2016-540873	27-Feb-14	6349401	8-Jun-18
79906.002	MX	13	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	MX/u/2016/002927	27-Feb-14	359175	18-Sep-18
79906.002	US	00	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	14/190,592	26-Feb-14	9,019,613	28-Apr-15
79906.002	US	17	PIXEL MAPPING AND PRINTING FOR MICRO LENS ARRAYS TO ACHIEVE DUAL-AXIS ACTIVATION OF IMAGES	Granted	14/658,304	16-Mar-15	9,592,700	14-Mar-17
79906.003	AU	01	SLANTED LENS INTERLACING	Granted	2013352469	25-Nov-13	2013352469	7-Dec-17
79906.003	CA	03	SLANTED LENS INTERLACING	Granted	2,892,915	25-Nov-13	2,892,915	17-Oct-17
79906.003	CN	74	SLANTED LENS INTERLACING	Granted	201380071266.9	25-Nov-13	ZL201380071266.9	27-Apr-18
79906.003	EP	05	SLANTED LENS INTERLACING	Published	13859072.4	25-Nov-13		
79906.003	MX	13	SLANTED LENS INTERLACING	Granted	MX/u/2015/006866	25-Nov-13	348257	5-Jun-17
79906.003	US	00	SLANTED LENS INTERLACING	Granted	14/088,519	25-Nov-13	9,383,588	5-Jul-16
79906.004	AU	01	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Granted	2015264559	25-Nov-16	2015264559	6-Feb-20
79906.004	CN	34	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Granted	201580037897.8	12-May-15	ZL201580037897.8	6-Nov-18
79906.004	EP	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Published	15795987.5	24-Nov-16		
79906.004	HK	08	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Granted	16103333.2	25-Nov-13	HK1215474	19-Jul-19
79906.004	IN	56	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Pending	201617040793	12-May-15		
79906.004	US	00	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Granted	14/282,271	20-May-14	9,052,518	9-Jun-15
79906.004	US	17	SLANT LENS INTERLACING WITH LINEARLY ARRANGED SETS OF LENSES	Granted	14/722,992	27-May-15	9,482,791	1-Nov-16
79906.008	AU	01	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	2014395153	25-Nov-16	2014395153	27-Feb-20
79906.008	CA	03	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	2,950,253	20-May-14	2,950,253	12-Feb-19
79906.008	CH	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.008	CN	34	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	201480080534.8	20-May-14	ZL201480080534.8	3-Sep-19
79906.008	DE	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	602014061088.9	12-Feb-20
79906.008	EP	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.008	FR	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.008	GB	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.008	LI	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.008	NL	05	SLANT LENS INTERLACING WITH LINEARLY ARRANGED LENSES	Granted	14892272.7	24-Nov-16	3145728	12-Feb-20
79906.009	US	00	OPTICAL SECURITY ELEMENTS WITH OPAQUE MASKS FOR ENHANCED LENS-TO-PRINTED PIXEL ALIGNMENT	Granted	15/980,352	15-May-18	10,369,832	6-Aug-19
79906.009	WO	16	OPTICAL SECURITY ELEMENTS WITH OPAQUE MASKS FOR ENHANCED LENS-TO-PRINTED PIXEL ALIGNMENT	Published	PCT/US2018/032782	15-May-18		

Case Number	Country	Subcase	Title	Application Status	Application Number	Filing Date	Patent Number	Issue Date
79897.001	US	00	CONVERSION OF A DIGITAL STEREO IMAGE INTO MULTIPLE VIEWS WITH PARALLAX FOR 3D VIEWING WITHOUT GLASSES	Granted	13/749,861	25-Jan-13	9,786,253	10-Oct-17
79897.005	US	00	MULTI-LAYERED WAVEGUIDE FOR CAPTURING SOLAR ENERGY	Granted	14/258,759	22-Apr-14	9,477,033	25-Oct-16
79897.014	DE	05	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16871264.4	16-May-18	3362827	29-Sep-21
79897.014	DE	07	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	202016008971.0	1-Feb-21	202016008971.0	15-Feb-21
79897.014	EP	05	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16871264.4	16-May-18	3362827	29-Sep-21
79897.014	EP	93	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Allowed	21184802.3	9-Jul-21		
79897.014	FR	05	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16871264.4	16-May-18	3362827	29-Sep-21
79897.014	HK	08	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Unfiled				
79897.014	IE	05	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16871264.4	16-May-18	3362827	29-Sep-21
79897.014	MT	05	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16871264.4	16-May-18	3362827	29-Sep-21
79897.014	US	00	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	15/162,113	23-May-16	10,189,294	29-Jan-19
79897.014	US	17	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Granted	16/203,128	28-Nov-18	10,901,191	26-Jan-21
79897.014	US	36	ARRAYS OF MICRO MIRRORS FOR USE IN IMAGING SECURITY DEVICES	Published	17/152,623	19-Jan-21		
79897.015	US	00	ARRAYS OF INDIVIDUALLY ORIENTED MICRO MIRRORS PROVIDING INFINITE AXIS ACTIVATION IMAGING FOR IMAGING SECURITY DEVICES	Granted	15/588,831	8-May-17	10,317,691	11-Jun-19
79897.020	AT	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	CH	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	DE	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	602017032978.9	17-Feb-21
79897.020	EP	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	ES	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	FR	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	GB	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	IT	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	502021000037676.0	17-Feb-21
79897.020	LI	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	MT	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.020	SE	05	LENS-BASED SECURITY DEDICATED TO INDIVIDUAL COLORS FOR CURRENCY AND BRAND AUTHENTICATION	Granted	17860563.0	14-May-19	3526053	17-Feb-21
79897.029	US	00	MULTI-FACETED DIFFUSER PROVIDING SPECIFIC LIGHT DISTRIBUTIONS FROM A LIGHT SOURCE	Granted	16/894,489	5-Jun-20	10,914,875	9-Feb-21
79897.029	US	17	MULTI-FACETED DIFFUSER PROVIDING SPECIFIC LIGHT DISTRIBUTIONS FROM A LIGHT SOURCE	Published	17/144,504	8-Jan-21		
79897.029	WO	16	MULTI-FACETED DIFFUSER PROVIDING SPECIFIC LIGHT DISTRIBUTIONS FROM A LIGHT SOURCE	Published	PCT/US2020/041390	9-Jul-20		
79897.032	US	00	DIFFUSER COMBINING A MULTI-FACETED SURFACE AND A LENS COVERED SURFACE TO PROVIDE SPECIFIC LIGHT DISTRIBUTIONS	Published	17/185,680	25-Feb-21		
79897.033	US	50	MICRO DE-METALLIZATION FOR PRODUCING METALLIZED MASKS FOR OPTICAL FEATURES AND EMI APPLICATIONS	Pending	63/318,039	9-Mar-22		

Equipment & Tools

Lumenco is moving about \$1 million in equipment to its licensee in Mexico City after spending three years developing manufacturing processes for brand protection and currency to a

secured location. The equipment will be fully staffed and available for Lumenco to manufacture.

Lumenco will keep its chemistry lab and associated equipment in Denver as well as its fiber optic welding system for micro-optic tooling.

However, with a successful fund raise new equipment for casting optical structures will be purchased for EMI shielding and other security projects for possible installation in Denver.

Key Relationships

- *Lumenco Partners & Licensees*
 - Brand Protection, Accessos Holográficos: <https://acesosholograficos.com.mx/>
 - Currency Joint Venture (LenSys Sarl) Partner, Koenig, and Bauer: <https://banknote-solutions.koenig-bauer.com/en/>
 - Currency JV Licensee, Leonard Kurz: <https://www.leonhard-kurz.com/>
 - Kurz New Licensed Feature (Lumenco tech): https://www.youtube.com/watch?v=M3Y_nNCHiMY
 - Lumenco Lighting Technology Licensee, Bixby International: <https://www.bixbyintl.com/>
 - Theater Light Diffusion Licensee, Rosco: <https://us.rosco.com/en>

Milestones & Metrics

Milestones

Lumenco has signed deals in different categories per the above.

Other Key Milestones

- Lumenco will seek to close another license deal in the currency sector in Europe in 2022 with at least \$500K per year in minimum guarantees.
- Lumenco will install equipment in Mexico for currency thread production with its partners in Mexico in 2022.
- Lumenco install equipment for EMI shielding in the United States or Mexico in 2022 and put together a sales team for this market.

Key Metrics

INSTRUCTIONS: Explain which performance metrics are most important for understanding how your business is doing. What does success mean for you, and how will you know it when you see it?

Break Even Analysis & Commentary

With a \$500K EBIDA in 2020 and about \$150K in 2021, Lumenco has been cash flowing and more than breaking even, despite multimillion-dollar investments in new technologies in the last few years. Lumenco will continue this trend on an upward scale, both investing and commercializing and moving into real revenue in 2022 and beyond. Management sees no reason that losses during this growth phase will be necessary and they are not projected.

Financial Plan

Forecast

Key Assumptions

Lumenco will use the capital to commercialize new anti-counterfeiting currency features owned by Lumenco but developed under a research program with the US Government, as well as exciting new lightweight electromagnetic shielding technologies developed for the aerospace industry. For this round of capital, a valuation of \$40 million will be used based upon overall IP, Lumenco's ownership in LenSys Sarl, a joint venture with Koenig and Bauer in Switzerland in the banknote anticounterfeiting space and projected future royalties of over \$50 million in the next 10 years. Post investment, Lumenco will look to achieve a \$120 million plus valuation within 3 years and monetize investors capital. A valuation was done by an outside investment bank in 2021 at \$70 million for Lumenco.

Lumenco has been a micro-optics company with a large patent portfolio in currency anti-counterfeiting, brand protection, lighting, solar, projection screens and most recently EMI. Lumenco has multi-year license agreements in brand protection, currency, and lighting providing minimum guarantees and much larger future revenues. Lumenco is just now coming out of pre revenue into revenue after about 9 years of development.

Through its joint venture in Switzerland with Koenig and Bauer Banknote Solutions (LenSys Sarl), Lumenco licensed previously developed micro-optic currency tech to a large currency feature provider in Germany (Leonard Kurz). This technology has been launched into the currency world in the last few months after 4 years and more than \$5 million in commercialization costs. The feature has been very well received by central banks and now is the leader in decisions for several large volume iconic banknotes in the next 3 years. These banknotes could provide royalties of about \$30-\$40 million to Lumenco in the next 10 years, with the first revenues hitting in late 2025 and approximate royalties of \$5 million the first year of implementation, and about \$3-\$4 million per year thereafter.

Forecast: See statement section

Company

Overview

Founded in 2012 by Mark Raymond and Hector Porras, Lumenco Inc. is a development -stage company. In 2013, we incorporated as a C Corporation, registered in Colorado, USA.

Lumenco™ has specific expertise in micro-optics and associated software. Our micro-optic technologies represent a platform that has application across a wide array of diverse markets and industries. We have identified three primary markets to focus our initial development efforts, and we expect near-term commercialization in two of these three markets.

Mark, Hector, and Lumenco™ inventors are recognized in the micro-optics space as leaders in technology development with over forty patents either issued or filed. Additional senior management includes seasoned professionals with extensive experience in development-stage businesses. The Board of Directors is composed of senior management professionals, as well as two outside directors with years of successful business and investment credentials.

Team

Management Team

Mark Raymond

Founder, Chief Executive Officer, Chairman of the Board of Directors

Mark Raymond is a serial entrepreneur and scientist, having founded multiple companies and authored or co-authored over 50 patents in micro-optics in fields from currency anti-counterfeiting to solar, lighting and screen technologies.

Mark has served on the board of directors for various companies over the years and enjoys helping entrepreneurs build and sell businesses.

Mark is considered one of the world's foremost authorities on micro-lens imaging design and reproduction including software development, lab testing and production.

Hector Porras

Founder, Vice President of Research + Development, Director.

Hector brings significant experience in developing new lenticular technologies with a wide variety of applications to Lumenco. He began his career as a television show producer for Chilean National Television.

In 2006, Hector shifted gears and served as Account Manager for DCL Motion Products, a developer of lenticular products. Prior to joining the Lumenco team, Hector served as Product Development Engineer for Genie Lens Technologies, LLC, a developer of anti-counterfeiting, solar, and lenticular products. An industrial civil engineer, Hector also contributes his experience as COO in several manufacturing and logistics companies.

Michael German

Brand Solutions Development

Michael German leads Scientific development of pigments, inks, and coating chemistries, now for new Lumenco® NanoDye™ process. Michael has a long career beginning in digital printing ink at Indigo® (Israel), launching the original USA strategic development projects in 2001, and later launched Gans Security Ink in California for years.

Tyler Kapus

Technology Development Supervisor

With a background in 3D animation, Tyler Kapus has utilized his passion for knowledge and technology by bringing new ideas into the field of light management. During his five-year career at Lumenco, he has been a driving force in pushing many of Lumenco's light-based technologies forward. In addition to being the primary designer and operator of Lumenco's proprietary raytracing software, he also leads a design team focused specifically on lens-based graphic security technologies.

Advisors

INSTRUCTIONS: Describe any mentors, investors, former professors, industry or subject-matter experts, knowledgeable friends or family members, small-business counselors, or others who can help you as a business owner.

Statements

Lumenco				
Financial Projection (Thousands \$)				
May-22				
	2022	2023	2024	2025
Revenue:				
Accesos Holograficos	\$ 500	\$ 850	\$ 1,445	\$ 2,000
Bixby	\$ 150	\$ 300	\$ 600	\$ 800
Lensys (Kurz support agreement)	\$ 120	\$ 120	\$ 120	\$ 120
Lensys - Kurz Kinegram Dynamic Royalty			\$ 600	\$ 5,000
Pixel Displacement Tech (BEP)	\$ 500	\$ 1,200	\$ 1,200	\$ 2,000
R&D Testing (currency)	\$ 500	\$ 400	\$ 400	\$ 400
EMI Shielding	\$ 350	\$ 2,400	\$ 2,400	\$ 4,000
NanoPixel Brand Security Sales	\$ 350	\$ 1,100	\$ 2,000	\$ 2,500
Currency (South America)	\$ 350	\$ 4,000	\$ 5,000	\$ 6,000
AntiMicrobial Film	\$ 255	\$ 600	\$ 1,200	\$ 1,500
Total Revenue	\$ 3,075	\$ 10,970	\$ 14,965	\$ 24,320
Cost of Sales:				
Accesos Holograficos	\$ 200	\$ 340	\$ 578	\$ 800
Bixby	\$ -	\$ -	\$ -	
Lensys (Kurz support agreement)	\$ 50	\$ 50	\$ 50	\$ 50
Lensys - Kurz Kinegram Dynamic Royalty			\$ 50	\$ 120
Pixel Displacement Tech (BEP)	\$ 150	\$ 360	\$ 360	\$ 400
R&D Testing (Currency)	\$ 200	\$ 160	\$ 160	\$ 160
EMI Shielding	\$ 50	\$ 343	\$ 343	\$ 571
NanoPixel Brand Security Sales	\$ 125	\$ 393	\$ 714	\$ 893
Currency (South America)	\$ 100	\$ 1,800	\$ 2,250	\$ 2,700
AntiMicrobial Film	\$ 120	\$ 282	\$ 565	\$ 706
Total Cost of Sales	\$ 995	\$ 3,728	\$ 5,070	\$ 6,400
Gross Profit	\$ 2,080	\$ 7,242	\$ 9,895	\$ 17,920
Expenses:				
Salaries and Benefits	\$ 840	\$ 1,134	\$ 1,588	\$ 2,381
Research & Development	\$ 120	\$ 162	\$ 227	\$ 340
Rent	\$ 132	\$ 178	\$ 249	\$ 374
Utilities	\$ 12	\$ 16	\$ 23	\$ 34
Corporate insurance	\$ 42	\$ 57	\$ 79	\$ 119
Travel	\$ 30	\$ 41	\$ 57	\$ 85
Office Expenses	\$ 20	\$ 27	\$ 38	\$ 57
Other	\$ 30	\$ 41	\$ 57	\$ 85
Total Expenses	\$ 1,226	\$ 1,655	\$ 2,317	\$ 3,476
Cash Flow	\$ 854	\$ 5,587	\$ 7,578	\$ 14,444

Appendix

Lumenco, Inc. & Subsidiary Consolidated Balance Sheets December 31, 2021

	12/31/2021	12/31/20
ASSETS		
Current Assets:		
Cash	\$ 333,628	\$ 74,224
Accounts Receivable	44,367	214,845
Inventory	103,470	100,872
Other Current Assets	7,554	7,170
Total Current Assets	<u>489,019</u>	<u>397,111</u>
Property, Plant and Equipment	1,025,941	974,804
Accumulated Depreciation	<u>(607,715)</u>	<u>(443,621)</u>
Net Property, Plant and Equipment	418,226	531,183
Patents	360,016	360,016
Accumulated Amortization	<u>(157,920)</u>	<u>(133,919)</u>
Net Patents	202,096	226,097
Total Assets	<u>\$ 1,109,341</u>	<u>\$ 1,154,391</u>
LIABILITIES AND SHAREHOLDERS EQUITY		
Current Liabilities:		
Accounts Payable and Accrued Expenses	\$ 8,318	\$ 26,326
Down Payment on Equipment Sale	250,000	-
Interest Payable, Related Party	304,102	249,184
Accrued Wages Payable	-	19,632
Related Party Notes Payable	26,367	57,991
Related Party Convertible Notes Payable	<u>300,000</u>	<u>300,000</u>
Total Current Liabilities	888,787	653,133
Long Term Debt	408,784	539,532
Total Liabilities	<u>1,297,571</u>	<u>1,192,665</u>
Shareholders Equity:		
Series A Preferred Stock, no par value: 1,000,000 shares authorized; 714,285 issued and outstanding; liquidation preference of \$2,499,998	2,499,998	2,499,998
Common Stock, no par value: 100,000,000 shares authorized; 35,000,000 shares issued and outstanding	3,050,500	3,050,500
Contributed Capital	621,346	621,346
Accumulated Deficit	<u>(6,360,074)</u>	<u>(6,210,118)</u>
Total Shareholders Equity	(188,230)	(38,274)
Total Liabilities and Shareholders Equity	<u>\$ 1,109,341</u>	<u>\$ 1,154,391</u>

Lumenco, Inc. & Subsidiary
Consolidated Income Statements
December and 2021

	December	2021
Revenue	\$ 43,502	\$ 1,955,789
Cost of Sales	<u>\$ 175,123</u>	<u>\$ 206,733</u>
Gross Profit	\$ (131,621)	\$ 1,749,056
Operating Expenses:		
Salaries and Benefits	71,921	1,094,661
Research & Development	1,338	123,964
Occupancy:		
Rent	9,434	112,712
Utilities	1,527	19,896
Cleaning Expense	264	3,338
Total Occupancy	<u>11,225</u>	<u>135,946</u>
Corporate Insurance	3,423	45,960
Marketing	-	7,112
Auto Expense	850	14,541
Bank Service Charge	218	4,356
Travel	344	27,570
Meals & Entertainment	60	10,454
Office Expenses	3,992	37,680
Postage & Delivery	2,571	35,035
Incoming Freight	826	21,393
Software Expense	109	11,933
Outside Services	177	15,213
Professional Fees	1,500	162,208
Other	235	4,802
Total Operating Expenses	<u>98,789</u>	<u>1,752,828</u>
PPP Income	-	137,534
EBIDA	(230,410)	133,762
Interest Expense	57,661	95,623
Depreciation	13,916	164,094
Amortization	2,000	24,001
Net Income	<u>\$ (303,987)</u>	<u>\$ (149,956)</u>

Lumenco, Inc. & Subsidiary
Consolidated Statement of Cash Flows
Year Ending December 31, 2021

Cash Flow Provided by (Used In) Operating Activities:

Net Income	\$ (149,956)
Depreciation	164,094
Amortization	24,001
Changes in Current Assets and Liabilities:	
Decrease (Increase) in Accounts Receivable	170,478
Decrease (Increase) in Inventory	(2,598)
Decrease (Increase) in Other Current Assets	(384)
Increase (Decrease) in Accounts Payable and Accrued Expenses	36,910
Increase (Decrease) in Down Payments	250,000
Increase (Decrease) in Accrued Wages Payable	(19,632)
Increase (Decrease) in Related Party Notes Payable	(31,624)
Net Cash Provided by (Used In) Operating Activities	441,289

Cash Flow Provided by (Used In) Investing Activities:

Purchase of Property, Plant and Equipment	(51,137)
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Cash Flow Provided by (Used In) Financing Activities:

Principal Payments of Long Term Debt	(130,748)
Change in Cash Flow	259,404
Beginning Cash	74,224
Ending Cash	\$ 333,628

LENSYS

Balance Sheet	at 31 December 2021	at 31 December 2020
ASSETS	USD	USD
CURRENT ASSETS		
Cash	287'388.66	209'632.56
Accounts receivable	25'000.00	25'000.00
Other	-	47.60
Total assets	312'388.66	234'680.16
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable	0.00	0.00
Current account KBA-NotaSys SA	-22'672.52	-715'602.50
Other current liabilities	76.63	-
Total current liabilities	-22'595.89	-715'602.50
EQUITY		
Common Stock	-34'148.65	-19'097.25
Contributed capital	-849'420.85	-849'420.85
Reported loss	682'878.44	1'510'995.68
(+) Loss/ (-) Gain of the year	-89'101.71	-161'555.24
Accumulated deficit	593'776.73	1'349'440.44
Total Equity	-289'792.77	480'922.34
Total Equity and Liabilities	-312'388.66	-234'680.16

Lausanne, 23 March 2022

LENSYS

Income statement	2021	2020	2021 vs 2020	Remarks
	USD	USD		
Revenue	343'750.00	300'000.00	-106'250.00	
Administration cost	-1'434.60	-1'419.24	-15.36	
Consulting fees	-218'645.12	-154'984.62	-63'660.50	
Travel & Representation fees	-1'546.66	-1'973.11	426.45	Less travel costs in 2020 and in 2021 than in 2019 due to corona
Administrative expenses	-221'626.38	-158'376.97	65'886.20	
Cost of Research and Development			-	invoices from Lumenco are since April 2018 sent to NotaSys
Patent fee	-56'117.17	-44'199.21	-11'917.96	
Research and development expenses	-56'117.17	-44'199.21	-5'875.96	
Total Operating expenses	-277'743.55	-202'576.18	60'010.24	
Income from release of provisions		78'817.55	-78'817.55	Reversal provision Recharge Lensys 70'184.82 30.06.2020
Total Operating income	-	78'817.55	-78'817.55	
Operating Result (EBIT)	66'006.45	176'241.37	-125'057.31	
Currency exchange (+ gains, - losses, realized & unrealized)	23'517.49	-14'229.55	37'747.04	
Financial expenses (Bank fees)	-422.23	-456.58	34.35	
Extraordinary, non-recurring expenses			-	
Earning before tax (EBT)	89'101.71	161'555.24	-103'385.49	
Income tax			-	
Net result (+ gain, - loss)	89'101.71	161'555.24	-103'385.49	Better result in 2020 was mainly due to the Reversal provision Recharge Lensys and less consultancy fees than in 2021

Lausanne, 23 March 2022

RISK FACTORS

A crowdfunding investment involves risk. You should not invest any funds in this offering unless you can afford to lose your entire investment.

In making an investment decision, investors must rely on their own examination of the issuer and the terms of the offering, including the merits and risks involved. These securities have not been recommended or approved by any federal or state securities commission or regulatory authority. Furthermore, these authorities have not passed upon the accuracy or adequacy of this document.

The U.S. Securities and Exchange Commission does not pass upon the merits of any securities offered or the terms of the offering, nor does it pass upon the accuracy or completeness of any offering document or literature.

These securities are offered under an exemption from registration; however, the U.S. Securities and Exchange Commission has not made an independent determination that these securities are exempt from registration.

8. Discuss the material factors that make an investment in the issuer speculative or risky:

AN INVESTMENT IN THE SECURITIES OFFERED HEREBY IS SPECULATIVE IN NATURE, INVOLVES A HIGH DEGREE OF RISK AND SHOULD NOT BE MADE BY ANY INVESTOR WHO CANNOT AFFORD THE LOSS OF HIS ENTIRE INVESTMENT. EACH PROSPECTIVE PURCHASER SHOULD CAREFULLY CONSIDER THE FOLLOWING RISKS AND SPECULATIVE FACTORS ASSOCIATED WITH THIS OFFERING, AS WELL AS OTHERS DESCRIBED ELSEWHERE IN THE AGREEMENT, BEFORE MAKING ANY INVESTMENT. THE AGREEMENT CONTAINS CERTAIN STATEMENTS RELATING TO FUTURE EVENTS OR THE FUTURE FINANCIAL PERFORMANCE OF OUR COMPANY. PROSPECTIVE INVESTORS ARE CAUTIONED THAT SUCH STATEMENTS ARE ONLY PREDICTIONS, INVOLVE RISKS AND UNCERTAINTIES, AND THAT ACTUAL EVENTS OR RESULTS MAY DIFFER MATERIALLY. IN EVALUATING SUCH STATEMENTS, PROSPECTIVE INVESTORS SHOULD SPECIFICALLY CONSIDER THE VARIOUS FACTORS IDENTIFIED IN THE AGREEMENT, INCLUDING THE MATTERS SET FORTH BELOW, WHICH COULD CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE INDICATED BY SUCH FORWARD-LOOKING STATEMENTS.

Risks Related to the Company's Business and Financial Condition

Limited History

The Company was incorporated on April 29, 2013, and has limited data and history that you can use to evaluate our business strategies and prospects. Our business model is evolving and is distinct from other companies in our industry and it may not be successful. As a result of these factors, the future revenue and income potential of our business is uncertain. Any evaluation of our business and prospects must be considered in light of these factors and the risks and uncertainties often encountered by companies in the early stage of development. Some of these risks and uncertainties relate to our ability to:

- raise adequate financing
- respond effectively to competition, and
- attract and retain qualified employees

There can be no assurance that the Company will ever generate sufficient revenues to achieve or sustain profitability or generate positive cash flow. There can be no assurance that the Company will be successful in implementing its business plan.

Key Personnel

The Company is highly dependent on its key management. The loss of these individuals could have a material adverse effect on the Company. The Company does not presently maintain key person life insurance on any of these individuals.

Financial Statements

The Company is a start-up entity and currently has no financial statements. The Company intends to retain an accountant to prepare annual financial statements.

Risks Associated with this Offering and the Shares

This Offering is being made in reliance on an exemption from registration requirements and there is no guarantee the Offering will comply with the requirements for such exemption.

This Offering will not be registered with the Securities and Exchange Commission (“SEC”) under the Securities Act or with the securities agency of any state. The securities are being offered in reliance on an exemption from the registration provisions of the Securities Act and state securities laws applicable to offers and sales to investors meeting the investor suitability requirements set forth herein. If this Offering should fail to comply with the requirements of such exemption, investors may have the right to rescind their investment. This might also occur under applicable state securities or “blue sky” laws and regulations in states where the securities will be offered without registration or qualification pursuant to a private offering or other exemption.

The Offering has not been reviewed by Securities Agencies.

The sale of the securities offered hereby has not been approved or disapproved by the SEC or any state regulatory agencies, and no regulatory body has passed upon or endorsed the accuracy, adequacy, or completeness of this document. Accordingly, prospective investors must rely on their own examination of the document, including, without limitation, the merits of, and risks involved in, acquiring the securities.

There are significant restrictions on the transferability of the securities.

The securities are restricted securities under the Securities Act and cannot be resold or otherwise transferred unless they are registered under the Securities Act and any applicable state securities laws or are transferred in a transaction exempt from such registration.

Consequently, each investor’s ability to control the timing of the liquidation of his or her investment in the Company may be restricted. Investors should be prepared to hold their securities for an indefinite period of time.

There is no market, and there may never be a market, for the Shares, which may make it difficult for you to sell your Shares.

The Company is a private company and there is no trading market for any of the Company’s securities. Accordingly, there can be no assurance as to the liquidity of any markets that may develop for the Notes, the ability of holders of the Shares to sell the same, or the prices at which holders may be able to sell such Shares.

The Company’s officers and directors may be subject to indemnification by the Company in connection with this Offering.

Colorado law provides for indemnification of directors, and, to the extent permitted by such law, eliminate or limit the personal liability of directors to the Company and its creditors of monetary damages for certain breaches of fiduciary duty. Such indemnification may be available for

liabilities arising in connection with this Offering. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to governors, officers or persons controlling the Company pursuant to the foregoing provisions, the Company has been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Risks Related to Tax Issues

EACH PROSPECTIVE MEMBER SHOULD CONSULT HIS, HER OR ITS OWN TAX ADVISOR CONCERNING THE IMPACT THAT HIS, HER OR ITS PARTICIPATION IN THE COMPANY MAY HAVE ON HIS, HER OR ITS FEDERAL INCOME TAX LIABILITY AND THE APPLICATION OF STATE AND LOCAL INCOME AND OTHER TAX LAWS TO HIS, HER OR ITS PARTICIPATION IN THE OFFERING.

The IRS may classify your investment as a passive activity, resulting in your inability to deduct losses associated with your investment.

If you are not involved in our operations on a regular, continuing and substantial basis, it is likely that the IRS will classify your interest in the Company as a passive activity. The passive activity rules could restrict an investor's ability to currently deduct any of the Company's losses that are passed through to such investor.

Income allocations assigned to an investor's Note(s) may result in taxable income in excess of cash distributions, which means you may have to pay income tax on your investment with personal funds.

Investors will pay tax on their allocated shares of our taxable income. An investor may receive allocations of taxable income that result in a tax liability that is in excess of any cash distributions the Company may make to the investor. Accordingly, investors may be required to pay some or all of the income tax on their allocated shares of the Company's taxable income with personal funds.

An IRS audit could result in adjustment to the Company's allocations of income, gain, loss and deduction causing additional tax liability to the Company's Shareholders.

The IRS may audit the Company's income tax returns and may challenge positions taken for tax purposes and allocations of income, gain, loss and deduction to investors. If the IRS were successful in its challenge, an investor may have additional tax liabilities.

IN ADDITION TO THE ABOVE RISKS, BUSINESSES ARE OFTEN SUBJECT TO RISKS NOT FORESEEN OR FULLY APPRECIATED BY MANAGEMENT. IN REVIEWING THIS AGREEMENT, POTENTIAL INVESTORS SHOULD KEEP IN MIND OTHER POSSIBLE RISKS THAT COULD BE IMPORTANT.

THE OFFERING

9. What is the purpose of this offering?

To raise capital to commercialize banknote technology developed under contract with the Federal Reserve and BEP, as well as its newly tested lightweight EMI shielding for aircraft and satellites.ă

10. How does the issuer intend to use the proceeds of this offering?

LUMENCO, INC.

Use of Offering Proceeds

	If Minimum Offering Amount Sold	If Maximum Offering Amount Sold
Total Proceeds	<u>\$ 50,000</u>	<u>\$ 250,000</u>
Net Proceeds of Offering	<u>\$ 50,000</u>	<u>\$ 250,000</u>
Legal related to patents, trademarks	16,000	35,000
Testing	9,000	22,000
Sales Samples	12,000	18,000
Marketing	13,000	40,000
Equipment	N/A	75,000
Inventory	N/A	60,000
Total Use of Net Proceeds of Offering	<u>\$ 50,000</u>	<u>\$ 250,000</u>

11. How will the issuer complete the transaction and deliver securities to the investors?
Signed Subscription Agreements will be collected through the funding portal.

12. How can an investor cancel an investment commitment?

NOTE: Investors may cancel an investment commitment until 48 hours prior to the deadline identified in these offering materials.

The intermediary will notify investors when the target offering amount has been met.

If the issuer reaches the target offering amount prior to the deadline identified in the offering materials, it may close the offering early if it provides notice about the new offering deadline at least five business days prior to such new offering deadline (absent a material change that would require an extension of the offering and reconfirmation of the investment commitment).

If an investor does not cancel an investment commitment before the 48-hour period prior to the offering deadline, the funds will be released to the issuer upon closing of the offering and the investor will receive securities in exchange for his or her investment.

If an investor does not reconfirm his or her investment commitment after a material change is made to the offering, the investor's investment commitment will be cancelled and the committed funds will be returned.

OWNERSHIP AND CAPITAL STRUCTURE

The Offering

13. Describe the terms of the securities being offered.

LUMENCO, INC.
CONFIDENTIAL TERM SHEET

The following is a summary of the basic terms and conditions of a proposed \$1,000,000 offering of **Preferred Stock ("Shares")** by Lumenco, Inc., a Colorado corporation (the “Company”), to certain qualified investors.

THIS TERM SHEET IS FOR DISCUSSION PURPOSES ONLY AND IS NOT BINDING ON THE COMPANY OR THE PROSPECTIVE INVESTORS. NEITHER THE COMPANY NOR ANY PROSPECTIVE INVESTORS SHALL BE OBLIGATED TO CONSUMMATE AN INVESTMENT UNTIL APPROPRIATE DOCUMENTATION HAS BEEN PROVIDED TO PROSPECTIVE INVESTORS.

Securities Offered:	Up to 250,000 shares of Series B Preferred Stock
Offering Price:	\$1.00 per share
Minimum Investment:	\$10,000.00
Minimum Offering:	\$50,000
Capital Structure:	The Company currently has two classes of stock, namely, common stock and preferred stock. There are presently 35,000,000 shares of common stock outstanding and 714,285 of Series A Preferred Stock.
Corporate Governance:	The Company is managed by a Board of Directors (the “Board”) , and the day-to-day operations of the Company will be performed by the Directors and any other officers appointed by the Board. The Board is comprised of four (4) Directors, elected by a majority of the outstanding shares.
Series B Preferred Stock:	
<i>Preferred Distribution:</i>	5% annual cumulative distribution for three (3) years.
<i>Conversion:</i>	At any time after three (3) years, the Company can, at its option, convert the Shares to shares of the Company’s common stock .

Non-Voting Interest

The holders of the Shares will have no rights to vote on any corporate matters until such time as the Shares may convert into shares of the **Company's common stock**.

Restrictions on Transfer:

We will be offering the Shares pursuant to certain exemptions from the registration requirements of the Securities Act and applicable state securities laws. Therefore, the Shares will not be registered with the SEC, and **will be deemed "restricted securities" under the Securities Act**. You will not be able to re-sell or transfer your Shares except as permitted under the Securities Act and applicable state securities laws, pursuant to registration or exemption therefrom.

Tax Considerations:

The Company will be treated as a C-Corporation for federal income tax purposes.

Prospective investors are advised to contact their tax advisors with regard to tax consequences arising from investing in the Company.

14. Do the securities offered have voting rights? Yes No

15. Are there any limitations on any voting or other rights identified above? Yes No

Explain: See Bylaws

16. How may the terms of the securities being offered be modified?

Any material changes to this offering will be communicated through the Funding Portal giving unsubscribed investors an opportunity to positively accept the modifications, reject them, or have their investment commitment automatically refunded.

Restrictions on Transfer of the Securities Being Offered

The securities being offered may not be transferred by any purchaser of such securities during the one year period beginning when the securities were issued, unless such securities are transferred:

- (1) to the issuer;
- (2) to an accredited investor;
- (3) as part of an offering registered with the U.S. Securities and Exchange Commission; or
- (4) to a member of the family of the purchaser or the equivalent, to a trust controlled by the purchaser, to a trust created for the benefit of a member of the family of the purchaser or the equivalent, or in connection with the death or divorce of the purchaser or other similar circumstance.

NOTE: The term “accredited investor” means any person who comes within any of the categories set forth in Rule 501(a) of Regulation D, or who the seller reasonably believes comes within any of such categories, at the time of the sale of the securities to that person.

The term “member of the family of the purchaser or the equivalent” includes a child, stepchild, grandchild, parent, stepparent, grandparent, spouse or spousal equivalent, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law of the purchaser, and includes adoptive relationships. The term “spousal equivalent” means a cohabitant occupying a relationship generally equivalent to that of a spouse.

Description of Issuer's Securities

17. What other securities or classes of securities of the issuer are outstanding? Describe the material terms of any other outstanding securities or classes of securities of the issuer.

Updated Feb 2022	TIMB BECAME OWNER	CERTIFICATES		FROM WHOM SHARES WERE TRANSFERRED (If Original Issue Enter As Such)	AMOUNT PAID THEREON	DATE OF TRANSFER OF SHARES	TO WHOM SHARES ARE TRANSFERRED	CERTIFICATES	
		ISSUED						SURRENDERED	
		CERTIF. NOS.	NO. SHARES					CERT. NOS.	NO. SHARES
	9/5/2013	5.00	800,000.00	Original Issue	Founder				
	9/5/2013	6	200,000	Original Issue	Founder	05/21/2015 and 06/02/2015			
	9/5/2013	12	200,000	Original Issue	Founder				
	9/5/2013	13	14,520,000	Original Issue	Unit Exchange Agreement				
	9/5/2013	14	7,480,000	Original Issue	Unit Exchange Agreement				
	9/5/2013	15	4,000,000	Original Issue	Private Placement				
	9/5/2013	16	80,000	Original Issue	Private Placement				
	9/5/2013	17	80,000	Original Issue	Private Placement				
	9/5/2013	18	160,000	Original Issue	Private Placement				
	9/5/2013	19	100,000	Original Issue	Private Placement				
	9/5/2013	20	80,000	Original Issue	Private Placement				
	9/5/2013	22	100,000	Original Issue	Private Placement				
	9/5/2013	23	200,000	Original Issue	Private Placement				
	9/5/2013	24	800,000	Original Issue	Private Placement				
	9/5/2013	25	1,200,000	Original Issue	Private Placement				
	9/5/2013	26	100,000	Original Issue	Private Placement				
	9/5/2013	27	800,000	Original Issue	Private Placement				
	10/4/2013	28	280,000	Released from Cert. No. 21					
	2/5/2015	29.00	20,000.00	Original Issue	Subscription Agreement				
	12/31/2014	30	203,750	Released from Cert. No. 1					
	12/31/2014	31	32,500	Transferred from Cert. No. 1					
	12/31/2014	32	10,000	Transferred from Cert. No. 1					
	12/31/2014	34	203,750	Transferred from Cert. No. 1					
	12/31/2014	35	350,000	Transferred from Cert. No. 2					
	12/31/2014	36	150,000	Transferred from Cert. No. 2					
	12/31/2014	37	700,000	Released from Cert. No. 3					
	12/31/2014	38	50,000	Transferred from Cert. No. 3					
	12/31/2014	39	40,000	Transferred from Cert. No. 3					
	5/21/2015	40	10,000	Released from Cert. No. 3					
	5/21/2015	41	430,000	Released from Cert. No. 3					
	5/21/2015	42	10,000	Transferred from Cert. No. 7					
	5/21/2015	2/12/1900	11/264637	Released from Cert. No. 4					
	5/21/2015	44	96,667	Released from Cert. No. 5					
	5/21/2015	45	96,666	Released from Cert. No. 10					
	5/21/2015	46	96,667	Released from Cert. No. 11					
	6/2/2015	47	20,000	Transferred from Cert. No. 7					
	6/28/2016	48	200,000	Transferred from Cert. No. 4					
	6/28/2016	49	100,000	Transferred from Cert. No. 4					
	Total		35,000,000						

LUMENCO, INC.
SERIES A PREFERRED STOCK TRANSFER LEDGER

NAME OF STOCKHOLDER	PLACES OF RESIDENCE	TIMB BECAME OWNER	CERTIFICATES		FROM WHOM SHARES WERE TRANSFERRED (If Original Issue Enter As Such)	AMOUNT PAID THEREON	DATE OF TRANSFER OF SHARES	TO WHOM SHARES ARE TRANSFERRED	CERTIFICATES	
			ISSUED						SURRENDERED	
			CERTIF. NOS.	NO. SHARES					CERTIF. NOS.	NO. SHARES
KEA-Notas SA		12/5/2014	SAP-01	571,426	Original Issue	SA-SPA				
KEA-Notas SA		7/8/2015	SAP-02	142,837	Original Issue	\$499,999.50				
TOTAL				714,263						

18. How may the rights of the securities being offered be materially limited, diluted or qualified by the rights of any other class of security identified above?

See Term Sheet for Details

19. Are there any differences not reflected above between the securities being offered and each other class of security of the issuer? Yes No

Explain: _____

20. How could the exercise of rights held by the principal shareholders identified in Question 6 above affect the purchasers of the securities being offered?

See Risk Factors

21. How are the securities being offered being valued? Include examples of methods for how such securities may be valued by the issuer in the future, including during subsequent corporate actions.

The selection of an offering price was arbitrarily determined.

22. What are the risks to purchasers of the securities relating to minority ownership in the issuer?

See Risk Factors

23. What are the risks to purchasers associated with corporate actions including:

- additional issuances of securities,
- issuer repurchases of securities,
- a sale of the issuer or of assets of the issuer or
- transactions with related parties?

24. Describe the material terms of any indebtedness of the issuer:

See Schedule of Liabilities attached hereto

25. What other exempt offerings has the issuer conducted within the past three years? :

None

26. Was or is the issuer or any entities controlled by or under common control with the issuer a party to any transaction since the beginning of the issuer's last fiscal year, or any currently proposed transaction, where the amount involved exceeds five percent of the aggregate amount of capital raised by the issuer in reliance on Section 4(a)(6) of the Securities Act during the preceding 12-month period, including the amount the issuer seeks to raise in the current offering, in which any of the following persons had or is to have a direct or indirect material interest:

(1) any officer of the issuer;

(2) any person who is, as of the most recent practicable date, the beneficial owner of 20 percent or more of the issuer's outstanding voting equity securities, calculated on the basis of voting power;

(3) if the issuer was incorporated or organized within the past three years, any promoter of the issuer; or

(4) any immediate family member of any of the foregoing persons.

If yes, for each such transaction, disclose the following:

Specified Person	Relationship to Issuer	Nature of Interest in Transaction	Amount of Interest
Not applicable			

FINANCIAL CONDITION OF THE ISSUER

27. Does the issuer have an operating history? Yes No

28. Describe the financial condition of the issuer, including, to the extent material, liquidity, capital resources and historical results of operations.

FINANCIAL INFORMATION

29. Include the financial information specified below covering the two most recently completed fiscal years or the period(s) since inception, if shorter:

ATTESTATION

I, Dale Dollenbacher, confirm that the financials attached hereto have been reviewed by me and my team. I confirm that these historic financials attached hereto are accurate to the best of my knowledge.


Dale Dollenbacher, CFO

Lumenco, Inc. & Subsidiary
Consolidated Balance Sheets
December 31, 2021

	12/31/2021	12/31/20
ASSETS		
Current Assets:		
Cash	\$ 333,628	\$ 74,224
Accounts Receivable	44,367	214,845
Inventory	103,470	100,872
Other Current Assets	7,554	7,170
Total Current Assets	<u>489,019</u>	<u>397,111</u>
Property, Plant and Equipment	1,025,941	974,804
Accumulated Depreciation	(607,715)	(443,621)
Net Property, Plant and Equipment	<u>418,226</u>	<u>531,183</u>
Patents	360,016	360,016
Accumulated Amortization	(157,920)	(133,919)
Net Patents	<u>202,096</u>	<u>226,097</u>
Total Assets	<u>\$ 1,109,341</u>	<u>\$ 1,154,391</u>
LIABILITIES AND SHAREHOLDERS EQUITY		
Current Liabilities:		
Accounts Payable and Accrued Expenses	\$ 8,318	\$ 26,326
Down Payment on Equipment Sale	250,000	-
Interest Payable, Related Party	304,102	249,184
Accrued Wages Payable	-	19,632
Related Party Notes Payable	26,367	57,991
Related Party Convertible Notes Payable	300,000	300,000
Total Current Liabilities	<u>888,787</u>	<u>653,133</u>
Long Term Debt	408,784	539,532
Total Liabilities	<u>1,297,571</u>	<u>1,192,665</u>
Shareholders Equity:		
Series A Preferred Stock, no par value: 1,000,000 shares authorized; 714,285 issued and outstanding; liquidation preference of \$2,499,998	2,499,998	2,499,998
Common Stock, no par value: 100,000,000 shares authorized; 35,000,000 shares issued and outstanding	3,050,500	3,050,500
Contributed Capital	621,346	621,346
Accumulated Deficit	(6,360,074)	(6,210,118)
Total Shareholders Equity	<u>(188,230)</u>	<u>(38,274)</u>
Total Liabilities and Shareholders Equity	<u>\$ 1,109,341</u>	<u>\$ 1,154,391</u>

Lumenco, Inc. & Subsidiary
Consolidated Income Statements
December and 2021

	December	2021
Revenue	\$ 43,502	\$ 1,955,789
Cost of Sales	<u>\$ 175,123</u>	<u>\$ 206,733</u>
Gross Profit	<u>\$ (131,621)</u>	<u>\$ 1,749,056</u>
Operating Expenses:		
Salaries and Benefits	71,921	1,094,661
Research & Development	1,338	123,964
Occupancy:		
Rent	9,434	112,712
Utilities	1,527	19,896
Cleaning Expense	264	3,338
Total Occupancy	<u>11,225</u>	<u>135,946</u>
Corporate Insurance	3,423	45,960
Marketing	-	7,112
Auto Expense	850	14,541
Bank Service Charge	218	4,356
Travel	344	27,570
Meals & Entertainment	60	10,454
Office Expenses	3,992	37,680
Postage & Delivery	2,571	35,035
Incoming Freight	826	21,393
Software Expense	109	11,933
Outside Services	177	15,213
Professional Fees	1,500	162,208
Other	235	4,802
Total Operating Expenses	<u>98,789</u>	<u>1,752,828</u>
PPP Income	-	137,534
EBIDA	(230,410)	133,762
Interest Expense	57,661	95,623
Depreciation	13,916	164,094
Amortization	2,000	24,001
Net Income	<u>\$ (303,987)</u>	<u>\$ (149,956)</u>

2

Lumenco, Inc. & Subsidiary
Consolidated Statement of Cash Flows
Year Ending December 31, 2021

Cash Flow Provided by (Used In) Operating Activities:

Net Income	\$ (149,956)
Depreciation	164,094
Amortization	24,001
Changes in Current Assets and Liabilities:	
Decrease (Increase) in Accounts Receivable	170,478
Decrease (Increase) in Inventory	(2,598)
Decrease (Increase) in Other Current Assets	(384)
Increase (Decrease) in Accounts Payable and Accrued Expenses	36,910
Increase (Decrease) in Down Payments	250,000
Increase (Decrease) in Accrued Wages Payable	(19,632)
Increase (Decrease) in Related Party Notes Payable	(31,624)
Net Cash Provided by (Used In) Operating Activities	<u>441,289</u>

Cash Flow Provided by (Used In) Investing Activities:

Purchase of Property, Plant and Equipment	(51,137)
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Cash Flow Provided by (Used In) Financing Activities:

Principal Payments of Long Term Debt	(130,748)
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Change in Cash Flow	<u>259,404</u>
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Beginning Cash	74,224
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Ending Cash	<u><u>\$ 333,628</u></u>
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30. With respect to the issuer, any predecessor of the issuer, any affiliated issuer, any director, officer, general partner or managing member of the issuer, any beneficial owner of 20 percent or more of the issuer's outstanding voting equity securities, calculated in the same form as described in Question 6 of this Question and Answer format, any promoter connected with the issuer in any capacity at the time of such sale, any person that has been or will be paid (directly or indirectly) remuneration for solicitation of purchasers in connection with such sale of securities, or any general partner, director, officer or managing member of any such solicitor, prior to May 16, 2016:

(1) Has any such person been convicted, within 10 years (or five years, in the case of issuers, their predecessors and affiliated issuers) before the filing of this offering statement, of any felony or mis demeanor:

- (i) in connection with the purchase or sale of any security? Yes No
- (ii) involving the making of any false filing with the Commission? Yes No
- (iii) arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser, funding portal or paid solicitor of purchasers of securities? Yes No

If Yes to any of the above, explain: _____

(2) Is any such person subject to any order, judgment or decree of any court of competent jurisdiction, entered within five years before the filing of the information required by Section 4A(b) of the Securities Act that, at the time of filing of this offering statement, restrains or enjoins such person from engaging or continuing to engage in any conduct or practice:

- (i) in connection with the purchase or sale of any security? Yes No
- (ii) involving the making of any false filing with the Commission? Yes No
- (iii) arising out of the conduct of the business of an underwriter, broker, dealer, municipal securities dealer, investment adviser, funding portal or paid solicitor of purchasers of securities? Yes No

If Yes to any of the above, explain: _____

(3) Is any such person subject to a final order of a state securities commission (or an agency or officer of a state performing like functions); a state authority that supervises or examines banks, savings associations or credit unions; a state insurance commission (or an agency or officer of a state performing like functions); an appropriate federal banking agency; the U.S. Commodity Futures Trading Commission; or the National Credit Union Administration that:

- (i) at the time of the filing of this offering statement bars the person from:
 - (A) association with an entity regulated by such commission, authority, agency or officer? Yes No
 - (B) engaging in the business of securities, insurance or banking? Yes No
 - (C) engaging in savings association or credit union activities? Yes No
- (ii) constitutes a final order based on a violation of any law or regulation that prohibits fraudulent, manipulative or deceptive conduct and for which the order was entered within the 10-year period ending on the date of the filing of this offering statement? Yes No

If Yes to any of the above, explain: _____

(4) Is any such person subject to an order of the Commission entered pursuant to Section 15(b) or 15B(c) of the Exchange Act or Section 203(e) or (f) of the Investment Advisers Act of 1940 that, at the time of the filing of this offering statement:

- (i) suspends or revokes such person's registration as a broker, dealer, municipal securities dealer, investment adviser or funding portal? Yes No
- (ii) places limitations on the activities, functions or operations of such person? Yes No
- (iii) bars such person from being associated with any entity or from participating in the offering of any penny stock?
 Yes No

If Yes to any of the above, explain: _____

(5) Is any such person subject to any order of the Commission entered within five years before the filing of this offering statement that, at the time of the filing of this offering statement, orders the person to cease and desist from committing or causing a violation or future violation of:

- (i) any scienter-based anti-fraud provision of the federal securities laws, including without limitation Section 17(a)(1) of the Securities Act, Section 10(b) of the Exchange Act, Section 15(c)(1) of the Exchange Act and Section 206(1) of the Investment Advisers Act of 1940 or any other rule or regulation thereunder? Yes No
- (ii) Section 5 of the Securities Act? Yes No

If Yes to any of the above, explain: _____

- (6) Is any such person suspended or expelled from membership in, or suspended or barred from association with a member of, a registered national securities exchange or a registered national or affiliated securities association for any act or omission to act constituting conduct inconsistent with just and equitable principles of trade?
- Yes No

If Yes, explain: _____

- (7) Has any such person filed (as a registrant or issuer), or was any such person or was any such person named as an underwriter in, any registration statement or Regulation A offering statement filed with the Commission that, within five years before the filing of this offering statement, was the subject of a refusal order, stop order, or order suspending the Regulation A exemption, or is any such person, at the time of such filing, the subject of an investigation or proceeding to determine whether a stop order or suspension order should be issued?
- Yes No

If Yes, explain: _____

- (8) Is any such person subject to a United States Postal Service false representation order entered within five years before the filing of the information required by Section 4A(b) of the Securities Act, or is any such person, at the time of filing of this offering statement, subject to a temporary restraining order or preliminary injunction with respect to conduct alleged by the United States Postal Service to constitute a scheme or device for obtaining money or property through the mail by means of false representations?

Yes No

If Yes, explain: formc.attest.postal.postal

If you would have answered “Yes” to any of these questions had the conviction, order, judgment, decree, suspension, expulsion or bar occurred or been issued after May 16, 2016, then you are NOT eligible to rely on this exemption under Section 4(a)(6) of the Securities Act.

OTHER MATERIAL INFORMATION

31. In addition to the information expressly required to be included in this Form, include:

- (1) any other material information presented to investors; and
- (2) such further material information, if any, as may be necessary to make the required statements, in the light of the circumstances under which they are made, not misleading.



Colorado Secretary of State
 Date and Time: 06/14/2022 10:40 AM
 ID Number: 20131267361
 Document number: 20221585045
 Amount Paid: \$25.00

Document must be filed electronically.
 Paper documents are not accepted.
 Fees & forms are subject to change.
 For more information or to print copies
 of filed documents, visit www.sos.state.co.us.

ABOVE SPACE FOR OFFICE USE ONLY

Amended and Restated Articles of Incorporation

filed pursuant to §7-90-301, et seq. and §7-110-107 and §7-90-304.5 of the Colorado Revised Statutes (C.R.S.)

1. For the entity, its ID number and entity name are

ID number 20131267361
(Colorado Secretary of State ID number)
 Entity name Lumenco, Inc.

2. The new entity name (if applicable) is _____.

3. The amended and restated constituent filed document is attached.

4. If the amendment provides for an exchange, reclassification or cancellation of issued shares, the attachment states the provisions for implementing the amendment.

5. *(Caution: Leave blank if the document does not have a delayed effective date. Stating a delayed effective date has significant legal consequences. Read instructions before entering a date.)*

(If the following statement applies, adopt the statement by entering a date and, if applicable, time using the required format.)

The delayed effective date and, if applicable, time of this document is/are _____.
(mm/dd/yyyy hour:minute am/pm)

Notice:

Causing this document to be delivered to the Secretary of State for filing shall constitute the affirmation or acknowledgment of each individual causing such delivery, under penalties of perjury, that such document is such individual's act and deed, or that such individual in good faith believes such document is the act and deed of the person on whose behalf such individual is causing such document to be delivered for filing, taken in conformity with the requirements of part 3 of article 90 of title 7, C.R.S. and, if applicable, the constituent documents and the organic statutes, and that such individual in good faith believes the facts stated in such document are true and such document complies with the requirements of that Part, the constituent documents, and the organic statutes.

This perjury notice applies to each individual who causes this document to be delivered to the Secretary of State, whether or not such individual is identified in this document as one who has caused it to be delivered.

6. The true name and mailing address of the individual causing the document to be delivered for filing are

Raymond Mark
(Last) (First) (Middle) (Suffix)
 3600 Huron Street
(Street name and number or Post Office Box information)
 Englewood CO 80110
(City) (State) (Postal/Zip Code)
 United States
(Province – if applicable) (Country – if not US)

(If the following statement applies, adopt the statement by marking the box and include an attachment.)

This document contains the true name and mailing address of one or more additional individuals causing the document to be delivered for filing.

Disclaimer:

This form/cover sheet, and any related instructions, are not intended to provide legal, business or tax advice, and are furnished without representation or warranty. While this form/cover sheet is believed to satisfy minimum legal requirements as of its revision date, compliance with applicable law, as the same may be amended from time to time, **remains the responsibility of the user of this form/cover sheet. Questions should be addressed to the user's** legal, business or tax advisor(s).

**AMENDED AND RESTATED ARTICLES OF INCORPORATION
OF
LUMENCO, INC.**

Lumenco, Inc., a corporation organized and existing under and by virtue of the provisions of the Colorado Business Corporations Act (the "Act"),

DOES HEREBY CERTIFY: that the Articles of Incorporation of this corporation (as amended) be amended and restated in its entirety as follows:

ARTICLE I

Name

The name of this corporation is Lumenco, Inc.

ARTICLE II

Offices

The address of the registered office and principal office of this corporation in the State of Colorado is 3600 South Huron Street, Englewood, Colorado 80110. The name of its registered agent at such address is Mark Raymond.

ARTICLE III

Business and Purposes

The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the Act.

ARTICLE IV

Capital

A. Authorization of Stock. This corporation is authorized to issue two classes of stock to be designated, respectively, common stock and preferred stock. The total number of shares that this corporation is authorized to issue is One Hundred Two Million (102,000,000). The total number of shares of common stock authorized to be issued is One Hundred Million (100,000,000), no par value per share (the "Common Stock"). The total number of shares of preferred stock authorized to be issued is Two Million (2,000,000), no par value per share (the "Preferred Stock"), all of which shares are designated as "Series A Preferred Stock."

B. Rights, Preferences and Restrictions of Series A Preferred Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Series A Preferred Stock are as set forth below in this Article IV(B).

1. Dividend Provisions. All dividends of the corporation shall be distributed among all holders of Common Stock and Series A Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Series A Preferred Stock were converted to Common Stock at the then effective conversion rate set forth herein.

2. Liquidation Preference.

(a) In the event of any Liquidation Event (as defined below), either voluntary or involuntary, the holders of Series A Preferred Stock shall be entitled to receive out of the proceeds or assets of this corporation available for distribution to its shareholders (the "Proceeds"), prior and in preference to any distribution of the Proceeds of such Liquidation Event to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the sum of the Original Issue Price (as defined below), plus declared but unpaid dividends on such share. If, upon the occurrence of such event, the Proceeds thus distributed among the holders of the Series A Preferred Stock shall be insufficient to permit the payment to such holders of the full aforesaid preferential amounts, then the entire Proceeds legally available for distribution shall be distributed ratably among the holders of the Series A Preferred Stock in proportion to the full preferential amount that each such holder is otherwise entitled to receive under this subsection (a). For purposes of these Amended and Restated Articles of Incorporation (the "Restated Articles of Incorporation"), "Original Issue Price" shall mean \$3.50 per share for each share of the Series A Preferred Stock (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like with respect to such Series A Preferred Stock).

(b) Upon completion of the distribution required by subsection (a) of this Section 2, all of the remaining Proceeds available for distribution to shareholders shall be distributed among the holders of Common Stock pro rata based on the number of shares of Common Stock held by each such holder.

(c) Notwithstanding the above, for purposes of determining the amount each holder of shares of Series A Preferred Stock is entitled to receive with respect to a Liquidation Event, each such holder of shares of Series A Preferred Stock shall be deemed to have converted (regardless of whether such holder actually converted) such holder's shares of Series A Preferred Stock into shares of Common Stock immediately prior to the Liquidation Event if, as a result of an actual conversion, such holder would receive, in the aggregate, an amount greater than the amount that would be distributed to such holder if such holder did not convert such shares of Series A Preferred Stock into shares of Common Stock. If any such holder shall be deemed to have converted shares of Series A Preferred Stock into Common Stock pursuant to this paragraph, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Series A Preferred Stock that have not converted (or have not been deemed to have converted) into shares of Common Stock.

(d) (i) For purposes of this Section 2, a "Liquidation Event" shall include (A) the closing of the sale, transfer or other disposition of all or substantially all of this corporation's and its subsidiaries' assets (taken as a whole), (B) the consummation of the merger or consolidation of this corporation (or a subsidiary of the corporation if the corporation issues

capital stock in such transaction) with or into another entity (except a merger or consolidation in which the holders of capital stock of this corporation immediately prior to such merger or consolidation continue to hold at least 50% of the voting power of the capital stock of this corporation or the surviving or acquiring entity), (C) the closing of the transfer (whether by merger, consolidation or otherwise), in one transaction or a series of related transactions, to a person or group of affiliated persons (other than an underwriter of this corporation's securities), of this corporation's securities by the Company's shareholders if, after such closing, such person or group of affiliated persons would hold more than 50% of the outstanding voting stock of this corporation (or the surviving or acquiring entity), (D) a liquidation, dissolution or winding up of this corporation, (E) an exclusive license of all or substantially all of the corporation's and its subsidiaries' intellectual property (taken as a whole) to a third party, or (F) the sale of a majority of the equity interests of Lumenco, LLC by the corporation to a third party. The treatment of any particular transaction or series of related transactions as a Liquidation Event may be waived by the vote or written consent of the holders of a majority of the outstanding Series A Preferred Stock (voting together as a separate class).

(ii) In any Liquidation Event, if Proceeds received by this corporation or its shareholders is other than cash, its value will be deemed its fair market value. Any securities shall be valued as follows:

(A) Securities not subject to investment letter or other similar restrictions on free marketability covered by (B) below:

(1) If traded on a securities exchange, the value shall be deemed to be the average of the closing prices of the securities on such exchange over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event;

(2) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the twenty (20) trading-day period ending three (3) trading days prior to the closing of the Liquidation Event; and

(3) If there is no active public market, the value shall be the fair market value thereof, as determined by this corporation's Board of Directors.

(B) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a shareholder's status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in clauses (A)(1), (2) or (3) above to reflect the approximate fair market value thereof, as determined by this corporation's Board of Directors.

(C) The foregoing methods for valuing non-cash consideration to be distributed in connection with a Liquidation Event shall be superseded by the determination of such value set forth in the definitive agreements governing such Liquidation Event.

3. Redemption. The Series A Preferred Stock is not redeemable at the option of the holder thereof.

4. Conversion. The holders of the Series A Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert. Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share, at the office of this corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price for the Series A Preferred Stock by the Conversion Price (the conversion rate for the Series A Preferred Stock into Common Stock is referred to herein as the "Conversion Rate"), determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial Conversion Price per share of Series A Preferred Stock shall be the Original Issue Price; provided, however, that the Conversion Price for the Series A Preferred Stock shall be subject to adjustment as set forth in subsection 4(d).

(b) Automatic Conversion. Each share of Series A Preferred Stock shall automatically be converted into shares of Common Stock at the Conversion Rate at the time in effect for the Series A Preferred Stock immediately upon the earlier of (i) the closing of this corporation's sale of its Common Stock in a firm commitment underwritten public offering, the public offering price of which was not less than \$7.00 per share (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like) and \$25,000,000 in the aggregate (a "Qualified Public Offering") or (ii) the date, or the occurrence of an event, specified by vote or written consent or agreement of the holders of a majority of the then outstanding shares of Series A Preferred Stock (voting together as a separate class).

(c) Mechanics of Conversion. Before any holder of Series A Preferred Stock shall be entitled to voluntarily convert the same into shares of Common Stock, he or she shall surrender the certificate or certificates therefor, duly endorsed, at the office of this corporation or of any transfer agent for the Series A Preferred Stock (or, if the holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the corporation to indemnify the corporation against any claim that may be made against the corporation on account of the alleged loss, theft or destruction of such certificate), and shall give written notice to this corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. This corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series A Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date set forth for conversion in the written notice of the election to convert irrespective of the surrender of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended, the conversion may, at the option of any holder tendering

Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Series A Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities. If the conversion is in connection with the conversion provisions of subsection 4(b)(ii) above, such conversion shall be deemed to have been made on the conversion date described in the shareholder vote or consent approving such conversion, and the persons entitled to receive shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holders of such shares of Common Stock as of such date.

(d) Conversion Price Adjustments of Preferred Stock for Splits and Combinations. The Conversion Price of the Series A Preferred Stock shall be subject to adjustment from time to time as follows:

(i) In the event this corporation should at any time or from time to time after December 5, 2014 fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of the Series A Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of Series A Preferred Stock shall be increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents.

(ii) If the number of shares of Common Stock outstanding at any time after December 5, 2014 is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Price for the Series A Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of the Series A Preferred Stock shall be decreased in proportion to such decrease in outstanding shares.

(e) Other Distributions. In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in subsection 4(d)(i), then, in each such case for the purpose of this subsection 4(e), the holders of the Series A Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of this corporation into which their shares of the Series A Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this corporation entitled to receive such distribution.

(f) Recapitalizations. If at any time or from time to time there shall be a recapitalization, reorganization, reclassification, consolidation or merger involving the corporation (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in this Section 4 or in Section 2), provision shall be made so that the holders of the Series A Preferred Stock shall thereafter be entitled to receive upon conversion of the Series A Preferred Stock the number of shares of stock or other securities or property of this corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such event. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of the Series A Preferred Stock after the event to the end that the provisions of this Section 4 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of the Series A Preferred Stock) shall be applicable after that event as nearly equivalently as may be practicable.

(g) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon the conversion of any share or shares of the Series A Preferred Stock and the aggregate number of shares of Common Stock to be issued to particular shareholders, shall be rounded down to the nearest whole share and this corporation shall pay in cash the fair market value of any fractional shares as of the time when entitlement to receive such fractions is determined. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of the Series A Preferred Stock the holder is at the time converting into Common Stock and the number of shares of Common Stock issuable upon such conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of the Series A Preferred Stock pursuant to this Section 4, this corporation, at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of the Series A Preferred Stock a certificate setting forth such adjustment or readjustment (including the prior and new Conversion Prices for the Series A Preferred Stock) and showing in detail the facts upon which such adjustment or readjustment is based. This corporation shall, upon the written request at any time of any holder of Series A Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for the Series A Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of the Series A Preferred Stock.

(h) Reservation of Stock Issuable Upon Conversion. This corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series A Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred Stock, in addition to such other remedies as shall be available to the holder of such Series A Preferred Stock, this corporation will take such corporate action as may, in the opinion of its counsel, be necessary to

increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to these Restated Articles of Incorporation.

(i) Waiver of Adjustment to Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of the Series A Preferred Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of a majority of the outstanding shares of the Series A Preferred Stock. Any such waiver shall bind all then current and future holders of shares of the Series A Preferred Stock.

(j) Taxes. The corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Series A Preferred Stock pursuant to this Section 4. The corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Series A Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the corporation the amount of any such tax or has established, to the satisfaction of the corporation, that such tax has been paid.

5. Voting Rights. The holders of each share of the Series A Preferred Stock shall have the right to one vote for each share of Common Stock into which such Series A Preferred Stock could then be converted, and with respect to such vote, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any shareholders' meeting in accordance with the Bylaws of this corporation, and except as provided by law, shall be entitled to vote, together with holders of Common Stock, with respect to any question upon which holders of Common Stock have the right to vote. Fractional votes shall not, however, be permitted and any fractional voting rights available on an as-converted basis (after aggregating all shares into which shares of Series A Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one-half being rounded upward). There shall be no cumulative voting. The corporation shall not, without the consent of the holders of a majority of the outstanding shares of Series A Preferred Stock, amend these Restated Articles of Incorporation or the corporation's bylaws if such amendment adversely changes or amends the rights, preferences or privileges of the Series A Preferred Stock.

6. Status of Converted Stock. In the event any shares of Series A Preferred Stock shall be converted pursuant to Section 4 hereof, the shares so converted shall be cancelled and shall not be issuable by this corporation. The Restated Articles of Incorporation of this corporation shall be appropriately amended to effect the corresponding reduction in this corporation's authorized capital stock.

7. Notices. Any notice required by the provisions of this Article IV(B) to be given to the holders of shares of Preferred Stock shall be deemed given (i) if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his, her or its

address appearing on the books of this corporation, (ii) if such notice is provided by electronic transmission in a manner permitted by the Act or (iii) if such notice is provide in another manner then permitted by the Act.

C. Rights, Preferences and Restrictions of Series B Preferred Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Series B Preferred Stock are as set forth below in this Article IV(C).

1. No Voting Rights. The holders of the shares of the Corporation's Series B Preferred Stock shall not be entitled to voting rights.

2. Dividend Provisions. All dividends of the corporation shall be distributed among all holders of Common Stock and Series A Preferred Stock and Series B Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Series A Preferred Stock and Series B Preferred Stock were converted to Common Stock at the then effective conversion rate set forth herein.

3. Series B Preferred Distribution. Each holder of Series B Preferred Stock shall receive, to the extent sufficient funds are available, an annual cumulative preferred distribution equal to five percent (5%) of each such shareholder's Initial Capital Contribution on December 31 of each year (hereinafter the "Series B Preferred Distribution"), with the first such Series B Preferred Distribution to be made pursuant to this Agreement on December 31 and on December 31 of each year thereafter up to a maximum of three (3) years (and in the event that funds are not available in any particular year to make the preferred distributions specified herein, such distributions shall cumulate and the Corporation shall pay the same upon the availability of sufficient funds; provided, however, that the Corporation shall not postpone the making of a Series B Preferred Distribution beyond one (1) year from the date upon which said Series B Preferred Distribution was due and payable without the consent of all of the Series B Preferred shareholders).

4. Redemption. The Series B Preferred Stock is not redeemable at the option of the holder thereof.

5. Conversion. The holders of the Series B Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Corporation's Option to Convert. Each share of Series B Preferred Stock shall be convertible, at the option of the corporation, at any time after the third (3rd) anniversary of the date of issuance of such share, at the office of this corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing the Original Issue Price for the Series B Preferred Stock by the Conversion Price (the conversion rate for the Series B Preferred Stock into Common Stock is referred to herein as the "Conversion Rate"), determined as hereafter provided, in effect on the date the certificate is surrendered for conversion. The initial Conversion Price per share of Series B Preferred Stock shall be the Original Issue Price; provided, however, that the Conversion Price for the Series B Preferred Stock shall be subject to adjustment as set forth in subsection 5(d).

(b) Mechanics of Conversion. Before any holder of Series B Preferred Stock shall be entitled to convert the same into shares of Common Stock, he or she shall surrender the certificate or certificates therefor, duly endorsed, at the office of this corporation or of any transfer agent for the Series B Preferred Stock (or, if the holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the corporation to indemnify the corporation against any claim that may be made against the corporation on account of the alleged loss, theft or destruction of such certificate), and shall give written notice to this corporation at its principal corporate office, of the election to convert the same and shall state therein the name or names in which the certificate or certificates for shares of Common Stock are to be issued. This corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series B Preferred Stock, or to the nominee or nominees of such holder, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date set forth for conversion in the written notice of the election to convert irrespective of the surrender of the shares of Series A Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock as of such date. If the conversion is in connection with an underwritten offering of securities registered pursuant to the Securities Act of 1933, as amended, the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the persons entitled to receive the Common Stock upon conversion of the Series B Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of such sale of securities. If the conversion is in connection with the conversion provisions of subsection 4(b)(ii) above, such conversion shall be deemed to have been made on the conversion date described in the shareholder vote or consent approving such conversion, and the persons entitled to receive shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holders of such shares of Common Stock as of such date.

(c) Conversion Price Adjustments of Preferred Stock for Splits and Combinations. The Conversion Price of the Series B Preferred Stock shall be subject to adjustment from time to time as follows:

(i) In the event this corporation should at any time or from time to time after the date hereof fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or rights convertible into, or entitling the holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such holder for the additional shares of Common Stock or the Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such dividend distribution, split or subdivision if no record date is fixed), the Conversion Price of the Series B Preferred Stock shall be appropriately decreased so that the number of shares of Common Stock issuable on conversion of each share of Series B Preferred Stock shall be

increased in proportion to such increase of the aggregate of shares of Common Stock outstanding and those issuable with respect to such Common Stock Equivalents.

(ii) If the number of shares of Common Stock outstanding at any time after the date hereof is decreased by a combination of the outstanding shares of Common Stock, then, following the record date of such combination, the Conversion Price for the Series B Preferred Stock shall be appropriately increased so that the number of shares of Common Stock issuable on conversion of each share of the Series B Preferred Stock shall be decreased in proportion to such decrease in outstanding shares.

(d) Other Distributions. In the event this corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by this corporation or other persons, assets (excluding cash dividends) or options or rights not referred to in subsection 5(d)(i), then, in each such case for the purpose of this subsection 5(e), the holders of the Series B Preferred Stock shall be entitled to a proportionate share of any such distribution as though they were the holders of the number of shares of Common Stock of this corporation into which their shares of the Series B Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of this corporation entitled to receive such distribution.

(e) Recapitalizations. If at any time or from time to time there shall be a recapitalization, reorganization, reclassification, consolidation or merger involving the corporation (other than a subdivision, combination or merger or sale of assets transaction provided for elsewhere in this Section 5 or in Section 2), provision shall be made so that the holders of the Series B Preferred Stock shall thereafter be entitled to receive upon conversion of the Series B Preferred Stock the number of shares of stock or other securities or property of this corporation or otherwise, to which a holder of Common Stock deliverable upon conversion would have been entitled on such event. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 5 with respect to the rights of the holders of the Series B Preferred Stock after the event to the end that the provisions of this Section 4 (including adjustment of the Conversion Price then in effect and the number of shares purchasable upon conversion of the Series B Preferred Stock) shall be applicable after that event as nearly equivalently as may be practicable.

(f) No Fractional Shares and Certificate as to Adjustments.

(i) No fractional shares shall be issued upon the conversion of any share or shares of the Series B Preferred Stock and the aggregate number of shares of Common Stock to be issued to particular shareholders, shall be rounded down to the nearest whole share and this corporation shall pay in cash the fair market value of any fractional shares as of the time when entitlement to receive such fractions is determined. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of the Series B Preferred Stock the holder is at the time converting into Common Stock and the number of shares of Common Stock issuable upon such conversion.

(ii) Upon the occurrence of each adjustment or readjustment of the Conversion Price of the Series B Preferred Stock pursuant to this Section 5, this corporation,

at its expense, shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of the Series B Preferred Stock a certificate setting forth such adjustment or readjustment (including the prior and new Conversion Prices for the Series B Preferred Stock) and showing in detail the facts upon which such adjustment or readjustment is based. This corporation shall, upon the written request at any time of any holder of Series B Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (A) such adjustment and readjustment, (B) the Conversion Price for the Series B Preferred Stock at the time in effect, and (C) the number of shares of Common Stock and the amount, if any, of other property that at the time would be received upon the conversion of a share of the Series B Preferred Stock.

(g) Reservation of Stock Issuable Upon Conversion. This corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series B Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series B Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series B Preferred Stock, in addition to such other remedies as shall be available to the holder of such Series B Preferred Stock, this corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite shareholder approval of any necessary amendment to these Restated Articles of Incorporation.

(h) Waiver of Adjustment to Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of the Series B Preferred Stock may be waived, either prospectively or retroactively and either generally or in a particular instance, by the consent or vote of the holders of a majority of the outstanding shares of the Series B Preferred Stock. Any such waiver shall bind all then current and future holders of shares of the Series B Preferred Stock.

(i) Taxes. The corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Series B Preferred Stock pursuant to this Section 4. The corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Series B Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the corporation the amount of any such tax or has established, to the satisfaction of the corporation, that such tax has been paid.

6. Status of Converted Stock. In the event any shares of Series B Preferred Stock shall be converted pursuant to Section 5 hereof, the shares so converted shall be cancelled and shall not be issuable by this corporation. The Restated Articles of Incorporation of this corporation shall be appropriately amended to effect the corresponding reduction in this corporation's authorized capital stock.

7. Notices. Any notice required by the provisions of this Article IV(B) to be given to the holders of shares of Preferred Stock shall be deemed given (i) if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his, her or its address appearing on the books of this corporation, (ii) if such notice is provided by electronic transmission in a manner permitted by the Act or (iii) if such notice is provide in another manner then permitted by the Act.

D. Common Stock. The rights, preferences, privileges and restrictions granted to and imposed on the Common Stock are as set forth below in this Article IV(D).

1. Dividend Rights. All dividends of the corporation shall be distributed among all holders of Common Stock and Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Series A Preferred Stock were converted to Common Stock at the then effective conversion rate set forth herein

2. Liquidation Rights. Upon the liquidation, dissolution or winding up of this corporation, the assets of this corporation shall be distributed as provided in Section 2 of Article IV(B) hereof.

3. Redemption. The Common Stock is not redeemable at the option of the holder.

4. Voting Rights. The holder of each share of Common Stock shall have the right to one vote for each such share, and shall be entitled to notice of any shareholders' meeting in accordance with the Bylaws of this corporation, and shall be entitled to vote upon such matters and in such manner as may be provided by law; provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to the Articles of Incorporation that relates solely to the terms of the Series A Preferred Stock if the holders of the Series A Preferred Stock are entitled to vote separately as a class thereon pursuant to the Articles of Incorporation or pursuant to the Act. There shall be no cumulative voting.

ARTICLE V

Action Without Meetings

Any action required or permitted to be taken at any annual or special meeting of shareholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action(s) so taken, shall be signed by shareholders holding the number of shares equal to or greater than the minimum number of votes that would be necessary to authorize or take such action(s) at a meeting at which all of the shares entitled to vote thereon were present and voted and received by the corporation.

ARTICLE VI

Number of Directors; Bylaws

Subject to any additional vote required herein, the number of directors of this corporation shall be determined in the manner set forth in the Bylaws of this corporation. Except as otherwise provided in these Restated Articles of Incorporation or as restricted by the Act, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of this corporation.

ARTICLE VII

Election of Directors

Elections of directors need not be by written ballot unless the Bylaws of this corporation shall so provide.

ARTICLE VIII

Shareholder Meetings; Books

Meetings of shareholders may be held within or without the State of Colorado, as the Bylaws of this corporation may provide. The books of this corporation may be kept (subject to any provision contained in the statutes) outside the State of Colorado at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of this corporation.

ARTICLE IX

Limitation on Liability

A director of this corporation shall not be personally liable to this corporation or its shareholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to this corporation or its shareholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) acts specified under Section 7-108-403 of the Act, or (iv) for any transaction from which the director derived any improper personal benefit. If the Act is amended after approval by the shareholders of this Article IX to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of this corporation shall be eliminated or limited to the fullest extent permitted by the Act as so amended. Any amendment, repeal or modification of the foregoing provisions of this Article IX by the shareholders of this corporation shall not adversely affect any right or protection of a director of this corporation existing at the time of, or increase the liability of any director of this corporation with respect to any acts or omissions of such director occurring prior to, such amendment, repeal or modification.

ARTICLE X

Right to Amend

This corporation reserves the right to amend, alter, change or repeal any provision contained in these Restated Articles of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon shareholders herein are granted subject to this reservation.

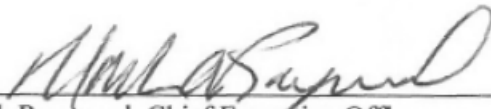
ARTICLE XI

Indemnification

To the fullest extent permitted by applicable law, this corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers, employees and agents of this corporation (and any other persons to which the Act permits this corporation to provide indemnification) through Bylaw provisions, agreements with such persons, vote of shareholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by the Act, subject only to limits created by the Act (statutory or non-statutory). Any amendment, repeal or modification of the foregoing provisions of this Article XI shall not adversely affect any right or protection of a director, officer, employee, agent or other person existing at the time of, or increase the liability of any such person with respect to any acts or omissions of such person occurring prior to, such amendment, repeal or modification.

* * *

IN WITNESS WHEREOF, these Restated Articles of Incorporation have been executed by a duly authorized officer of this corporation on this 13th day of June, 2022.



Mark Raymond, Chief Executive Officer

AMENDED AND RESTATED BYLAWS

OF

LUMENCO, INC.

ARTICLE I

Meetings of Stockholders

Section 1.1 Annual Meetings. If required by applicable law, an annual meeting of stockholders shall be held for the election of directors at such date, time and place, if any, either within or without the State of Colorado, as may be designated by resolution of the Board of Directors from time to time. Any other proper business may be transacted at the annual meeting.

Section 1.2 Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time by the Board of Directors, but such special meetings may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 1.3 Notice of Meetings. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given that shall state the place, if any, date and hour of the meeting, the record date for determining stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise provided by law, the Articles of Incorporation or these bylaws, the notice of any meeting shall be given by regular mail not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, as of the record date for determining the stockholders entitled to notice of the meeting. Such notice shall be deemed to be given on the business day following the date on which such notice is sent by regular mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation.

Section 1.4 Adjournments. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix a new record date for notice of such adjourned meeting in accordance with Section 1.8 of these bylaws, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

Section 1.5 Quorum. Except as otherwise provided by law, the Articles of Incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of a majority in voting power of the outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. In the absence of a quorum, the stockholders so present may, by a majority in voting power thereof, adjourn the meeting from time to time in the manner provided in Section 1.4 of these bylaws until a quorum shall attend. Shares of its own stock belonging to the corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by the corporation, shall neither be entitled to vote nor be counted for quorum purposes; provided, however, that the foregoing shall not limit the right of the corporation or any subsidiary of the corporation to vote stock, including but not limited to its own stock, held by it in a fiduciary capacity.

Section 1.6 Organization. Meetings of stockholders shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in his or her absence by the President, or in his or her absence by a Vice President, or in the absence of the foregoing persons by a chairperson designated by the Board of Directors, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

Section 1.7 Voting: Proxies. Except as otherwise provided by or pursuant to the provisions of the Articles of Incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of stock held by such stockholder which has voting power upon the matter in question. Each stockholder entitled to vote at a meeting of stockholders or to express consent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary of the corporation a revocation of the proxy or a new proxy bearing a later date. Voting at meetings of stockholders need not be by written ballot. At all meetings of stockholders for the election of directors at which a quorum is present a plurality of the votes cast shall be sufficient to elect. All other elections and questions presented to the stockholders at a meeting at which a quorum is present shall, unless otherwise provided by the Articles of Incorporation, these bylaws, or an agreement by corporation, the rules or regulations of any stock exchange applicable to the corporation, or applicable law or pursuant to any regulation applicable to the corporation or its securities, be decided by the affirmative vote of the holders of a majority in voting power of the shares of stock of the corporation which are present in person or by proxy and entitled to vote thereon.

Section 1.8 Fixing Date for Determination of Stockholders of Record. In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for

the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date: (1) in the case of determination of stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting and, unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for determining the stockholders entitled to vote at such meeting, such date shall also be the record date for determining the stockholders entitled to vote at such meeting; (2) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten (10) days from the date upon which the resolution fixing the record date is adopted by the Board of Directors; and (3) in the case of any other action, shall not be more than sixty (60) days prior to such other action. If no record date is fixed: (1) the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; (2) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting, when no prior action of the Board of Directors is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation in accordance with applicable law, or, if prior action by the Board of Directors is required by law, shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action; and (3) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for the stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for the determination of stockholders entitled to vote in accordance with the foregoing provisions of this Section 1.8 at the adjourned meeting.

Section 1.9 List of Stockholders Entitled to Vote. The officer who has charge of the stock ledger shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; provided, however, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of meeting or (ii) during ordinary business hours at the principal place of business of the corporation. The list of stockholders must also be open to examination at the meeting as required by applicable law. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 1.9 or to vote in person or by proxy at any meeting of stockholders.

Section 1.10 Action By Written Consent of Stockholders. Unless otherwise restricted by the Articles of Incorporation, any action required or permitted to be taken at any annual or special meeting of the stockholders may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the corporation by delivery to its registered office in the State of Colorado, its principal place of business, or an officer or agent of the corporation having custody of the book in which minutes of proceedings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested or by overnight courier. Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall, to the extent required by law, be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for notice of such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the corporation.

Section 1.11 Inspectors of Election. The corporation may, and shall if required by law, in advance of any meeting of stockholders, appoint one or more inspectors of election, who may be employees of the corporation, to act at the meeting or any adjournment thereof and to make a written report thereof. The corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. In the event that no inspector so appointed or designated is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector or inspectors so appointed or designated shall (i) ascertain the number of shares of capital stock of the corporation outstanding and the voting power of each such share, (ii) determine the shares of capital stock of the corporation represented at the meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares of capital stock of the corporation represented at the meeting and such inspectors' count of all votes and ballots. Such certification and report shall specify such other information as may be required by applicable law. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the corporation, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for an office at an election may serve as an inspector at such election.

Section 1.12 Conduct of Meetings. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person presiding over any meeting of stockholders shall have the right and authority to convene and to adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether

adopted by the Board of Directors or prescribed by the presiding person at the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders of record of the corporation, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof, and (v) limitations on the time allotted to questions or comments by participants. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and, if such presiding person should so determine, such presiding person shall so declare to the meeting, and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

ARTICLE II

Board of Directors

Section 2.1 Number; Qualifications. The Board of Directors shall consist of one or more members, with the exact number being determined from time to time by resolution of the Board of Directors. Directors need not be stockholders. This Section 2.1 may be changed by a duly adopted amendment to the Articles of Incorporation or by a Bylaw amending this Section 2.1

Section 2.2 Election; Resignation; Vacancies. The Board of Directors shall initially consist of the persons named as directors in the Articles of Incorporation or elected by the incorporator of the corporation, and each director so elected shall hold office until the first annual meeting of stockholders and until his or her successor is duly elected and qualified. At the first annual meeting of stockholders and at each annual meeting thereafter, the stockholders shall elect directors each of whom shall hold office for a term of one year or until his or her successor is duly elected and qualified, subject to such director's earlier death, resignation, disqualification or removal. Any director may resign at any time upon notice to the corporation. Unless otherwise provided by law, the Articles of Incorporation, any newly created directorship or any vacancy occurring in the Board of Directors for any cause may be filled by a majority of the remaining members of the Board of Directors, although such majority is less than a quorum, or by a plurality of the votes cast at a meeting of stockholders, and each director so elected shall hold office until the expiration of the term of office of the director whom he or she has replaced and until his or her successor is elected and qualified.

Section 2.3 Regular Meetings. Regular meetings of the Board of Directors may be held at such places within or without the State of Colorado and at such times as the Board of Directors may from time to time determine.

Section 2.4 Special Meetings. Special meetings of the Board of Directors may be held at any time or place within or without the State of Colorado whenever called by the President or by any member of the Board of Directors. Notice of a special meeting of the Board of Directors shall be given by the person or persons calling the meeting at least twenty-four hours before the special meeting.

Section 2.5 Telephonic Meetings Permitted. Members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this by-law shall constitute presence in person at such meeting.

Section 2.6 Quorum; Vote Required for Action. At all meetings of the Board of Directors a majority of the then authorized number of directors as set by Section 2.1 of these bylaws shall constitute a quorum for the transaction of business. Except in cases in which the Articles of Incorporation, these bylaws, or applicable law otherwise provides, a majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 2.7 Organization. Meetings of the Board of Directors shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in his or her absence by the President, or in their absence by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

Section 2.8 Action by Unanimous Consent of Directors. Unless otherwise restricted by the Articles of Incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmissions are filed with the minutes of proceedings of the board or committee in accordance with applicable law.

ARTICLE III

Committees

Section 3.1 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and to the extent provided in the resolution of the Board of Directors or these

bylaws, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it.

Section 3.2 Committee Rules. Unless the Board of Directors otherwise provides, each committee designated by the Board of Directors may make, alter and repeal rules for the conduct of its business. In the absence of such rules, each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these bylaws.

ARTICLE IV

Officers

Section 4.1 Executive Officers; Election; Qualifications; Term of Office; Resignation; Removal; Vacancies. The Board of Directors shall elect a President and Secretary, and it may, if it so determines, choose a Chairperson of the Board and a Vice Chairperson of the Board from among its members. The Board of Directors may also choose one or more Vice Presidents, one or more Assistant Secretaries, a Treasurer and one or more Assistant Treasurers and such other officers as it shall from time to time deem necessary or desirable. Each such officer shall hold office until the first meeting of the Board of Directors after the annual meeting of stockholders next succeeding his or her election, and until his or her successor is elected and qualified or until his or her earlier death, resignation or removal. Any officer may resign at any time upon written notice to the corporation. The Board of Directors may remove any officer with or without cause at any time, but such removal shall be without prejudice to the contractual rights of such officer, if any, with the corporation. Any number of offices may be held by the same person. Any vacancy occurring in any office of the corporation by death, resignation, removal or otherwise may be filled for the unexpired portion of the term by the Board of Directors at any regular or special meeting.

Section 4.2 Powers and Duties of Executive Officers. The officers of the corporation shall have such powers and duties in the management of the corporation as may be prescribed in a resolution by the Board of Directors and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board of Directors. The Board of Directors may require any officer, agent or employee to give security for the faithful performance of his or her duties.

Section 4.3 Appointing Attorneys and Agents; Voting Securities of Other Entities. Unless otherwise provided by resolution adopted by the Board of Directors, the Chairperson of the Board, the President or any Vice President may from time to time appoint an attorney or attorneys or agent or agents of the corporation, in the name and on behalf of the corporation, to cast the votes which the corporation may be entitled to cast as the holder of stock or other securities in any other corporation or other entity, any of whose stock or other securities may be held by the corporation, at meetings of the holders of the stock or other securities of such other corporation or other entity, or to consent in writing, in the name of the corporation as such holder, to any action by such other corporation or other entity, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consents, and may

execute or cause to be executed in the name and on behalf of the corporation and under its corporate seal or otherwise, all such written proxies or other instruments as he or she may deem necessary or proper. Any of the rights set forth in this Section 4.3 which may be delegated to an attorney or agent may also be exercised directly by the Chairperson of the Board, the President or the Vice President.

ARTICLE V

Stock

Section 5.1 Certificates. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the corporation by the Chairperson or Vice Chairperson of the Board of Directors, if any, or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, of the corporation certifying the number of shares owned by such holder in the corporation. Any of or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent, or registrar at the date of issue. The corporation shall not have the power to issue a certificate in bearer form.

Section 5.2 Lost, Stolen or Destroyed Stock Certificates; Issuance of New Certificates. The corporation may issue a new certificate of stock in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond, in each case reasonably satisfactory to the corporation to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate.

ARTICLE VI

Indemnification

Section 6.1 Right to Indemnification. The corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the corporation or, while a director or officer of the corporation, is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in Section 6.3, the corporation shall be required to indemnify a Covered

Person in connection with a proceeding (or part thereof) commenced by such Covered Person only if the commencement of such proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors of the corporation.

Section 6.2 Prepayment of Expenses. The corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article VI or otherwise.

Section 6.3 Claims. If a claim for indemnification (following the final disposition of such action, suit or proceeding) or advancement of expenses under this Article VI is not paid in full within thirty days after a written claim therefor by the Covered Person has been received by the corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 6.4 Nonexclusivity of Rights. The rights conferred on any Covered Person by this Article VI shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, provision of the Articles of Incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

Section 6.5 Other Sources. The corporation's obligation, if any, to indemnify or to advance expenses to any Covered Person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

Section 6.6 Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article VI shall not adversely affect any right or protection hereunder of any Covered Person in respect of any act or omission occurring prior to the time of such repeal or modification.

Section 6.7 Other Indemnification and Prepayment of Expenses. This Article VI shall not limit the right of the corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

ARTICLE VII

Miscellaneous

Section 7.1 Fiscal Year. The fiscal year of the corporation shall be determined by resolution of the Board of Directors.

Section 7.2 Seal. The corporate seal, if any, shall have the name of the corporation inscribed thereon and shall be in such form as may be approved from time to time by the Board of Directors.

Section 7.3 Manner of Notice. Except as otherwise provided herein or permitted by applicable law, notices to directors and stockholders shall be in writing and delivered personally, mailed, or sent by reputable overnight courier services (charges prepaid) to the directors or stockholders at their addresses appearing on the books of the corporation. Notice to directors may be given by telecopier, telephone or other means of electronic transmission.

Section 7.4 Waiver of Notice of Meetings of Stockholders, Directors and Committees. Any waiver of notice, given by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at nor the purpose of any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in a waiver of notice.

Section 7.5 Form of Records. Any records maintained by the corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time.

Section 7.6 Amendment of Bylaws. These bylaws may be altered, amended or repealed, and new bylaws made, by the Board of Directors, but the stockholders may make additional bylaws and may alter and repeal any bylaws whether adopted by them or otherwise; provided, however, neither the Board of Directors nor the stockholders may alter, amend or repeal these bylaws, or make new bylaws.

SECRETARY'S CERTIFICATE OF ADOPTION OF BYLAWS

OF

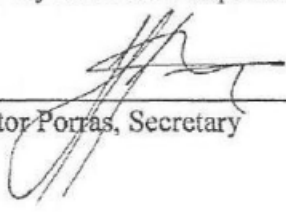
LUMENCO, INC.,
a Colorado corporation

I, the undersigned, do hereby certify:

1. That I am the duly elected and acting Secretary of LUMENCO, INC., a Colorado corporation.

2. That the foregoing Amended and Restated Bylaws constitute the Bylaws of said corporation as adopted by Joint Written Consent of a Majority of Shareholders and the Board of Directors of the Corporation dated as of the date hereof.

IN WITNESS WHEREOF, I have hereunto set my hand as of September 23, 2013.



Hector Porras, Secretary

SCHEDULE OF LIABILITIES

(Notes, Mortgages and Accounts Payable)

Name of Creditor	Original amount	Original date	Current balance	Current or delinquent?	Maturity date	Monthly Payment
Pawnee Leasing	\$206,539.63	9/15/2019	\$109,865.74	Current	8/15/2024	\$4,713.32
Int'l Finance Services	\$193,159.77	3/15/2018	\$41,109.42	Current	3/15/2023	\$3,881.00
Bryn Mawr	\$77,192.32	1/15/2021	\$40,699.84	Current	10/15/2023	\$2,393.96
Navitas	\$56,478.00	6/15/2020	\$20,174.41	Current	4/15/2023	\$1,746.61
Targeted Leasing	\$22,979.12	10/1/2019	\$10,287.80	Current	9/1/2023	\$697.72
SBA Loan	\$199,300.00	6/8/2020	\$199,300.00	Current	5/1/2051	\$1,013.00
Convertible Note - Keister	\$150,000.00	9/2/2014	\$302,051.15	Current	N/A	N/A
Convertible Note - Acks	\$150,000.00	9/2/2014	\$302,051.15	Current	N/A	N/A

Schedule of Fees

On-boarding fee: \$1,000 (can be broken into \$500 for TTW phase and \$500 to launch)

Commission on

funds raised: 3.15% to 7% (Tiers down based on volume). Fee schedule below.**

** Commission Fee Schedule

Total Raised		Tier %	Max Commission	Blended Fee
\$ -	\$ 250,000.00	7%	\$ 17,500.00	7.00%
\$ 250,001.00	\$ 500,000.00	6%	\$ 32,500.00	6.50%
\$ 500,001.00	\$ 1,000,000.00	5%	\$ 57,500.00	5.75%

ONGOING REPORTING

The issuer will file a report electronically with the Securities & Exchange Commission annually and post the report on its website, no later than:
(120 days after the end of each fiscal year covered by the report)

Once posted, the annual report may be found on the issuer's website at:
<http://lumencompany.com>

The issuer must continue to comply with the ongoing reporting requirements until:

- (1) the issuer is required to file reports under Section 13(a) or Section 15(d) of the Exchange Act;
- (2) The issuer has filed, since its most recent sale of securities pursuant to this part, at least one annual report pursuant to this section and has fewer than 300 holders of record;
- (3) The issuer has filed, since its most recent sale of securities pursuant to this part, the annual reports required pursuant to this section for at least the three most recent years and has total assets that do not exceed \$10,000,000;
- (4) the issuer or another party repurchases all of the securities issued in reliance on Section 4(a)(6) of the Securities Act, including any payment in full of debt securities or any complete redemption of redeemable securities; or
- (5) the issuer liquidates or dissolves its business in accordance with state law.