

# Lumenelle

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**Lighting Solutions for the 21<sup>st</sup> Century**



## CAPABILITIES

Lumenelle, Inc. • 18719 River Road  
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[www.lumenelle.com](http://www.lumenelle.com)

**Our Mission** is to work together with our client, in a collaborative method, to deliver the best possible results for lighting projects! We are your solution partners.

## **The Talent Behind Lumenelle.**

Lumenelle's design team represents nearly a century of mechanical, electrical, and industrial design experience. Combined, they hold over 35 US patents.

- ❑ The same talent used to design the first ever portable cellular telephone is responsible for new, fresh, leading edge, and sophisticated lamps and light fixture designs.
- ❑ The same talent used to design communications equipment to MIL-STD-810D, which helps to assure that equipment continues to function in all types of hostile environments is used to assure that Lumenelle products are robust and built to last.
- ❑ The same talent used to design two-way radios for firefighters resistance to heat and chemicals, helps to assure that the finishes on Lumenelle products will not corrode or deteriorate by used of typical cleaning agents nor discolor prematurely by heat generated by the lamp itself.
- ❑ The same talent used to design two-way radios for maximum performance and range, assuring that a police officer can maintain reliable communication with dispatch or other police officers, is applied to Lumenelle lighting products for optimum dispersion of light.
- ❑ The same talent used to design two-way radios that have controls that can be operated by a rescue worker in a fire or chemical suit or a scientist in Antarctica wearing heavy gloves is applied to Lumenelle's products to assure that they are user friendly to persons with arthritis or other physical disabilities.



## Key Talent

### *Peter Janko*

### President & Founder

- ❑ 5 years of program management experience of in-house and outsourced products.
- ❑ 20 years of electrical and mechanical product design experience.
- ❑ Skilled in both electrical and mechanical design.
- ❑ Proven record of creative design solutions resulted in products requiring little or no engineering support once in production.

### *Ken Larson*

### Lead Industrial Designer

- ❑ Determined the appearance of the first ever portable cellular telephone, Motorola's original Dynatac phone.
- ❑ 30+ years of product design experience.
- ❑ Ergonomics expert.
- ❑ Holder of 32 design patents.
- ❑ Highly skilled in design and graphics applications.
- ❑ Extensive knowledge in the design of molded plastic parts, extrusions, sheet metal, castings, escutcheons, and product labels.

### *In addition,*

Lumenelle has forged relationships with several other manufacturers and artisans with diverse expertise from glass blowing to ceramics to metalworking. Lumenelle hopes to establish itself as a recognized leader in the production of high tech / high art lighting by constant and continuous introduction of unique, innovative, exceptional quality products.

# Resume of Peter Janko

## Summary

- Seventeen years of telecommunications product design experience.
- Proven record of problem solving and developing creative design solutions resulting in products that have required little or no engineering support once in production. Skilled in ergonomic, mechanical, electrical, and printed circuit board design.
- Five years of program management experience of in-house and outsourced (contract-manufactured) products.
- Knowledgeable in metal die casting, plastics injection molding, sheet metal fabrication, printed circuit board fabrication, adhesive bonding, die cutting of plastic and rubber sheet materials, silk-screening, and tampo printing processes.

## Education

Physics (optics) <i>did not complete degree</i> ,	Northeastern Illinois University,	1977
A. S., Electronics with Honors,	Wilbur Wright College,	1976
Certificate of Completion, Advertising Art,	Loop College	
	(City Colleges of Chicago),	1972

## Qualifications

**Project Management** - Responsible for scheduling, oversight, and completion of deliverables for the installation of the power system portion of a 6GHz digital communications system for the Illinois State Toll Highway Authority. Completion was 6 months ahead of schedule; project duration was 2.5 years. Also had a major role in the creation of the conversion/installation plan documentation packages.

**Computer Aided Design and Drafting (CADD)** - Proficient in creating 3-dimensional wire frame and solid models in AutoCAD 13, Computervision - CADD IV, and Anvil 5000.

**Construction** - Familiar with building codes (BOCA) and National Electrical Codes. Have performed residential construction including building plan creation, acquisition of permits and approvals, wood framing, electrical installation, plumbing installation, and heating/AC system installation. Supervised electricians in installation of DC power systems, AC surge protection equipment, etc.

**Design Engineering, Electronic Prototype Development, Mechanical Design** - Took numerous test equipment products from proposal, through initial concept, to final product and into "the factory" for production at Motorola.

**Website Creation** - Have setup commercial websites including graphic design of the site, setup and managing the client's site on the web-hosting server, and InterNIC domain name registration. Have also created bilingual websites (www.pflanzenart.com). Proficient in the use of not only web design editors, but also in creating and editing web pages in HTML code. Skilled in the creation of interactive web pages using JavaScript and Java applets and the creation of animated graphics.

**Technical Writing/Publishing** - Have written dozens of instruction and service manuals for Motorola products. Skilled in authoring clear and concise instructions on how to use a product and how it works. Former editor-in-chief of the "Loupe" which is the professional journal of The American Society of Magazine Photographers (Chicago/Midwest Chapter).

**Procedure Development** - Mapped engineering product development processes and prepared process documents for ISO9000 certification of Motorola Aftermarket Products Division.

## Employment

**SCIEN TECH, Inc.**, Project Engineer, 1999-2001

Project Management, Installation Supervision, Conversion Plan Development, Procedure Development, Technical Writing

**MOTOROLA, Inc.**, 1978-1998

### **Project Designer - Test Equipment Products, 1987 -1998**

- Managed Motorola U.S. and Canada Aftermarket Accessories Division "Test Equipment Products." Determined the design approach to test equipment products, introducing between 10 to 20 new products per year. Coordinated the design responsibilities between various Motorola product groups and outside suppliers assuring timely introduction of new test equipment products.
- Restructured the service aid business toward "design for outsourcing" in order to maintain the level of new test equipment products introduced with fewer internal resources. Mapped current processes for ISO9000 certification.
- Created Motorola U.S. and Canada Aftermarket Products Division's "Service Web Site" as an information tool to assist radio product groups, customer service groups, and the service community in servicing Motorola products. Later expanded to include publishing program schedules and estimated ship dates of new products "on-line".
- Redesigned the Motorola Radio Interface Box (required for programming all current Motorola mobile and portable radios) achieving a cost reduction from \$43 to \$18 per unit resulting in an additional \$1.8 million profit on this one product alone while also adding several customer desired features to the product.
- Revised the method of up-issuing printed circuit boards and tracking changes that resulted in a cost per revision to be reduced from an average of \$120 to \$25 saving thousands of dollars per year in artwork charges.

### **Project Designer** - Digital Communications Systems, 1986

- Developed product concepts and performed mechanical design of mobile data products.
- Designed the mechanical packaging for Metrocom III mobile data unit. The unit had to be submersible, fully RF shielded and sabotage-proof by the user without adding excessive cost.

## **Resume of Peter Janko** (cont.)

- Successfully designed the first known sheet metal/die-cast hybrid enclosure at Motorola saving at least \$70,000 in tooling costs on the Metrocom III program.
- Designed a "D" connector system that was required to be waterproof and submersible.

### **Sr. Mechanical Designer** - Test Equipment Products, 1981-1986

- Developed product concepts and performed mechanical design of test equipment products.
- Developed an unconventional modular design concept for the R2500 Cellular Service Monitor which reduced to a minimum the assembly hardware, hand wiring and labor typical of radio service monitors.
- Designed a card-cage system that self-centers and aligns all of the plug in cards assuring that all of the PC board mounted connectors are in perfect alignment to the product's front panel.
- Developed a PC board registration and alignment system that improved the quality of PC boards by assuring that the copper layers, solder masks, and legends aligned properly.
- Pioneered electronic desktop publishing in the division, moving the publication of service manuals in-house. Combined with electronic handoff to the printer, a significant reduction in cycle time and cost was achieved.

### **Printed Circuit Board Designer** - Control Center Products, 1979-1981

Designed printed circuit boards used in T1600, Series 90, Centracom, and Centracom II radio base station controllers. Also designed ceramic hybrid circuits used in various control center products.

### **Test Equipment Technician** - C&E Parts, 1978-1979

Performed final test, alignment, and if required, repair of various Motorola products as they came off the production line.

### Specialized Training

Java, JavaScript Programming, Motorola Internal Training

### Foreign Languages

Fluent in German

### Affiliations/Honors

- U.S. Patent Award, for a Motorola radio accessory, 1996
- U.S. Patent Award, for a cellular service monitor, 1985
- Motorola Land Mobile Worldwide Employee Recognition Award for assuming additional responsibilities and a high-level project management of the test equipment products business, 1993.

# Resume of Ken Larson

## Summary

- Responsible for the appearance of the first ever portable cellular telephone
- 30+ years of product design experience at Motorola, Rick Springer & Associates, and Mel Boldt & Associates.
- Holder of 32 design patents for various telecommunications products.
- Highly skilled in design applications such as Adobe Illustrator, Adobe Streamline. Also skilled in Photoshop, Cadmover (File Transfer application), Excel, Word processing and Graphics.
- Extensive knowledge in the design of molded plastic parts, extrusions, sheet metal, castings, escutcheons, and product labels.

## Education

B. S., Industrial Design                      Illinois Institute of Technology,                      1966

## Qualifications

**Project Management** - Responsible for budget for the entire Industrial Design Department from 1977 to retirement.

**Procedure Development** - Primary creator of the Motorola Color Standards manual.

### **Computer Aided Design –**

- Primary person responsible for Macintosh development as tool for Industrial Design.
- Highly skilled in Adobe Illustrator and Adobe Streamline. Skilled in Photoshop, Cadmover (File Transfer application), Excel, Word processing and Graphics.

### **Model Making & Woodworking –**

- Made numerous design concept models for Motorola products.
- Make wood parts for 1936-1937 Cord Automobiles (10 years)

## Employment & Military Service

**ARMY RESERVE, Active Duty, June 1966 -Nov 1966**

**RICK SPRINGER & ASSOCIATES, Nov 1966 - May 1967**

Graphic Design Consultant

Designer /art production

**MEL BOLDT & ASSOCIATES, July 1967-June 1969**

Design Consultant office

Design detailer.

**MOTOROLA, INC., July 1969 to November 1998, retired**

Designer for numerous telecommunications products including paging, two way radio, microwave, cellular telephone, desk top radio controllers, and other communications products.

## **Resume of Ken Larson** (cont.)

### Affiliations/Honors

- Founding Director of Elmhurst Children's Assistance Foundation, past Director and Secretary for the Foundation (6 years).
- Participated in hundreds of projects as a member of Elmhurst Jaycees for 20 years.

## Ken's Fifteen Minutes Of Fame

Back in the early 70's, Motorola was preparing to introduce a revolutionary new product. Ken Larson was early into his career as an industrial designer. As with any new invention, the big question is always, "what will it look like?" So, Motorola decided to let all of their industrial designers each propose a concept for what was to become the first ever portable cellular phone. Of the many designs conceived, Ken's was chosen. He proudly admits that his was not the most stylish concept. So why was it chosen? Because his concept was readily perceived as manufacturable by both management and engineering, an important factor lost on many of today's designers.



Ken's design made it possible for Motorola to reuse many components from its portable two-way radios in the first portable cellular phone prototype. This was a critical factor since Motorola was under deadline by the Federal Communications Commission to demonstrate a full working cellular telephone or the frequencies that were set aside for cellular telephone service would be reallocated. Motorola made the deadline and the first Motorola Dynatac was born.

When compared to today's cell phones, the original Dynatac may appear a little prehistoric. But consider, it was designed 30 years ago!

To really appreciate Ken's styling ability, one only has look at the phone itself. After taking into account that its size into was dictated by the technology in existence at the time, most people would say it still looks OK. Who can honestly say the same about the clothing and hair styles of the 70's.

I think that Ken's design has aged quite well. It was also no coincidence that the portable cell phones produced by other manufacturers looked similar to Ken's design. Motorola's UltraClassic series retained most of Ken's original styling and survived into the 90's. It was replaced by the Flip Phone which represented the next big leap in cell phone design. Unfortunately, by then, Ken had moved on to another division of Motorola. It would have been interesting to see what the original Flip Phone could have been.

*Peter Janko, President, Lumenelle, Inc.*