

## **Internet of Things Lighting Product Manufacturer for Challenging Environments Such as Schools, Transportation and Pharmaceutical Laboratories**



**Jim Hawkins – CEO  
Kenall Manufacturing**

**CEOCFO:** *Mr. Hawkins, your website indicates Kenall Manufacturing is providing intelligent lighting solutions for challenging environments. Would you tell us who is using your solutions and what you are providing?*

**Mr. Hawkins:** We are a vertically integrated manufacturer of specialized lighting products for challenging environments. Those applications include healthcare, schools, universities, transportation, specialized and pharmaceutical manufacturing, and labs that use sealed enclosures for any type of environment where contamination is a potential issue.

**CEOCFO:** *Why would a school need specialized lighting?*

**Mr. Hawkins:** When you are dealing with public environments like a school, they have issues with abuse and vandalism. Young people especially tend to be rambunctious plus there are typically unoccupied spaces in the evening. Our vandal resistant lighting is often used on the exteriors of these facilities as well as in locker rooms, hallways and stairwells. In addition, we have a series of ingress-protected fixtures for wet or damp conditions; these fixtures are impervious to the entry of dirt, dust and water. On the university side, the products are often used in the same locations but universities have larger infrastructures including natatoriums stadiums and auditoriums. We also have a series of products for dormitories. Students living in dorms may attempt to damage light fixtures but our products are quite robust; they are either resistant or impervious to vandalism. We have a series of products to meet every need.

**CEOCFO:** *Are the environments you work with aware that they need specialized lighting and how do they find Kenall for help?*

**Mr. Hawkins:** They are aware of their problems and issues but not always sure how to solve them. In pharmaceutical manufacturing there is danger of product contamination. It may be drugs that they are producing and these drugs are in vats. There is millions of dollars' worth of product in those vats and if they are compromised they need to be thrown out. Our job is to go in and look at those facilities, understand their issues, see how lighting plays a part of their overall protocols and operations and come up with a solution for them. We find applicable performance standards from regulatory agencies and then design a product to those standards. After the products are developed we have them independently tested and certified so that when they are selected the purchaser or specifier knows and understands that the product meets the performance standards required for that particular area of their facility.

**CEOCFO:** *Do many companies come to you during the building process or is it more typical that an established facility will realize the need to make changes or to upgrade and update?*

**Mr. Hawkins:** Yes sometimes they will seek us out. We do advertise and promote our product through various media channels. I think once they do see the product and they see that we are in their space and we have an interesting solution for them, they are more curious and ask us to come out and look at their facility and see what we can do for them.

**CEOCFO:** *Are there new materials, new coatings, or ways of creating products and does it change much over time?*

**Mr. Hawkins:** We are going through a paradigm shift in our industry in the sense that lighting fixtures are becoming smart devices. Lighting is changing over from traditional incandescent and fluorescent bulbs or high intensity discharge lamps and is being replaced by semiconductor-based lamps and control systems. The lights have the capacity to be smart. They can monitor the environment and report on the operation of the lights and the environment. This can be done through

wireless or hardwired connections to a gateway, which can then be controlled by a computing device. We are leading the change-over to electronics in lighting and into the emerging infrastructure which is called The Internet of Things.

**CEOCFO: Are your customers embracing the change?**

**Mr. Hawkins:** There are always customers that are set in their ways and do not want to embrace the new technology but it is inevitable. But overall we do see a pretty quick acceptance of the new technology and the fact that it is the future. There is some concern it is a new technology and many claims are made that are not realistic. That is why it is very important to work with an established company that is capable of producing and testing the products to the highest standards.

**CEOCFO: Do you work typically through distributors or do customers come directly to Kenall?**

**Mr. Hawkins:** We work almost exclusively through distribution. While sell directly to them but they have very little influence on the sale of the product. The biggest influencers on the sale of the product is the specification community of architects, engineers and larger end-users. We use commissioned agencies throughout North America who offer our solutions to these professionals who specify products.

**CEOCFO: How important is made in America both to people in the US and to people outside of North America as well?**

**Mr. Hawkins:** It is very important to our customers. Contractors and the end-users have a great sense of satisfaction and assurance that the product is quality because it is made in the US. Virtually all of our component supplies are purchased locally in the US and the same can be said of our final manufacturing and assembly. We are able to shorten our supply lines and we are able to assure our quality. We are able to keep businesses in the area strong and keep our industry capabilities within the US.

“As CEO and visionary of the company, I do a lot of reading and networking with thought leaders to understand what the emerging technologies are and when they might be sufficiently developed so that they can actually be applied and commercialized into products.”- Jim Hawkins

**CEOCFO: Are there particular markets or industries where you would like to see more growth?**

**Mr. Hawkins:** I think for every industry the more customers learn about lighting controls and the ability to manage data the more value they can get from their lighting systems. There is a huge education job in all of our markets and through that education I think people will become more comfortable in specifying more of these advanced products.

**CEOCFO: Do you maintain a large inventory or manufacture to order?**

**Mr. Hawkins:** We try as much as possible to keep our finished goods inventory small. We are basically a made-to-order type of company. We design our products in advance so there is very little we are building that is not already designed as far as how we are going to make it. Typically, what we like to do is keep an inventory of long lead-time components and bring in easily obtainable goods at the time of manufacturing. Many of our vendors hold stock for us at their facilities without billing us. That enables us to produce a complex line of products and high breadth of products in a very short period using very little fixed inventory.

**CEOCFO: What is the competitive landscape?**

**Mr. Hawkins:** There is no one pure competitor facing Kenall. We are in so many different areas and verticals that what we typically find is a competitor in one vertical but not in others. There are also companies that we see in all our verticals but they do not have the depth of product that we do. Companies that are very small to very large compete with us.

**CEOCFO: Kenall was founded in 1963. Does history matter in your industry?**

**Mr. Hawkins:** Absolutely it does. When you are making lighting products that in some cases have ten-year warranties, the customer is very interested in knowing how long a company has been in business. In this emerging technology platform there are so many companies that are venture-capital based and are thinly capitalized companies that have a higher risk profile. A customer's best assurance, as far as the type of support that they are going to get in the future, is the strength and longevity of an organization going forward. We have over a thousand years of specialized knowledge in our organization which cannot be created overnight.

**CEOCFO: *When did you know it was time to embrace *The Internet of Things*?***

**Mr. Hawkins:** As CEO and visionary of the company, I do a lot of reading and networking with thought leaders to understand what the emerging technologies are and when they might be sufficiently developed so that they can actually be applied and commercialized into products. Typically I see things that are going to be happening three to ten years down the road but usually we do not get too serious about it until we actually have evidence that there is a viable commercial product that we can produce at a particular time from proven technology.

**CEOCFO: *You are the second generation CEO. Did you always know you were going to go into the family business?***

**Mr. Hawkins:** Yes and no. I started working here when I was thirteen years old on the assembly line. At the time, I thought this was going to be my career. I went to school and had some other inclinations but after joining the company, I realized that running a business like this provided an opportunity to explore all of my interests.

**CEOCFO: *Would you tell us about your sustainable vision?***

**Mr. Hawkins:** William McDonough wrote a book called *Cradle to Cradle*. It is important to understand that you do not throw anything out anymore; the world has limited resources. When you throw things out, you are really just throwing things in landfills. Everything is connected. It is important as a manufacturer that we be responsible. We recycle most of our waste products here. Our products are built in such a way so that we are not using any toxic materials. We use LEDS that reduce the carbon footprint and contain no mercury. Further, our building design and the supplies we use helps to minimize environmental impact. Our facility is temperature controlled which also helps to prevent contaminants finding their way into our products. Communities welcome us because we are a very clean producer. We take great pride in maintaining a healthy, sustainable environment

**CEOCFO: *Why choose Kenall Manufacturing?***

**Mr. Hawkins:** Innovation, quality, and peace of mind. It is peace of mind knowing that the product that you receive from us is a product that you can depend on. The company will be there to support you going forward. We are not satisfied until the problem is solved

**CEOCFO: *Final thoughts?***

**Mr. Hawkins:** We are switching over to a new SSL technology platform as fast as we possibly can for general lighting but the process has also allowed us to enter other areas of specialized lighting that were here to fore difficult to be a part of. When we can manipulate the spectrum of light; we are able to do a great number of things that were not able to be done before, such as tuning lighting to circadian rhythm. Paying attention to circadian rhythm can help people wake up faster, have a sense of well-being, and be able to sleep at night. This is especially important for night workers who need to maintain their biological schedule. Green light of a very specific wavelength is used in operating rooms; the surgeons do robotic and endoscopic surgeries and they need to see glare-free images of the procedure on the monitors. We have a red spectrum product that is specially tuned for vivarium research so that animals can be observed without disturbing their sleep patterns. Finally, we have a licensing agreement to commercialize a technology built around a specific wavelength that inactivates harmful bacteria with visible light. That is especially important because over 70,000 people are dying from hospital acquired infections each year in this country alone.

**CEOCFO: *There is a great deal to look for from Kenall Manufacturing!***

**Mr. Hawkins:** Yes, there is immense opportunity ahead for the company to continue to grow and contribute.

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Interview conducted by: Lynn Fosse, Senior Editor, CEOCFO Magazine



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**For more information visit:  
[www.kenall.com](http://www.kenall.com)**

**Contact:  
Joanne Cummins  
Sr. Marketing Manager  
262.891.9742  
[jcummins@kenall.com](mailto:jcummins@kenall.com)**