

The Fabulous
Lighting Maven
Unexpectedly Illuminating

ACTION-ORIENTED PEARLS OF WISDOM FOR INDUSTRIAL MANAGERS AND CONTRACTORS
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Dear Reader:

The specification sheet for any lighting fixture typically includes a great deal of information on the fixture – perhaps more than you want or need to know. That said, there is one set of data the Facility Manager may want to tune into, given its importance to the design and layout of any given space.

The photometric data, typically illustrated with a chart, will tell the buyer exactly what the outer limits of the fixture's distribution curve is. Don't be intimidated by this phrase, as the chart is quite easy to interpret once it's understood what its various components are.

PHOTOMETRICS

dmLights published an informative how-to-do-it on their website, entitled [How to Interpret a Light Distribution Curve](#), and we think it would be worth your time reading it.

Notice first that a photometric chart expresses light intensity in candelas. Many of you might be more familiar with the term 'lumens', in which case you may have to mentally convert candelas to lumens in order to reach an understanding as to what a respective chart is telling you. Shineretrofits.com explains the difference in their [Candela versus Lumen: What is the Difference?](#) article in this way:

"Knowing about the difference between lumens and candela will help you choose the appropriate lighting device for your business premises. For instance, you need to install lights in your office premises to illuminate the objects in an area. Proper light is necessary in corridors and storerooms, so that your employees can move around easily. In such cases, you will need to concentrate on the lumens value of a lighting device.

"The greater the lumen value, the more light the device will emit. Therefore, larger spaces will require a higher lumen value. On the other hand, some of your employees may work with intricate devices and need overhead lights to shine directly on the objects they are working with.

1 candela = 12.57 lumens

With this knowledge, you could now look at the Distribution Curve on a specification sheet for any fixture. Imagine the X axis of the chart representing the horizontal floor of your plant. The fixture is located at the center, and the lines radiating out from the center depict the angles of distribution from the fixture, and the concentric lines depict the decreasing luminous intensity as the angle becomes more extreme. If you track the outer limits line of the distribution curve illustrated, you'll have a good sense for how many lumens the fixture will produce at that curved line, at any point on that line.



U.S. Power is an industrial energy services company that specializes in the reduction of energy consumption across a broad array of manufacturing and food processing facilities located in Michigan, Ohio, Indiana, Illinois and Wisconsin. In addition, the company publishes a useful curation of lighting-oriented information from the marketplace, and consolidates it into this concise, twice per month letter known as The Fabulous Lighting Maven, distributed to Facilities Managers throughout the nation.

While the company prides itself in its diversity, it owns and operates a niche lighting contracting firm as well, known as U.S. Power Vision, LLC. With a core business in and around industrial LED lighting, it keeps itself and its clients at the cutting edge of illuminating technologies, all aimed at providing – from the eyes to the fingertips – exceptional illumination, superb control and intuitive simplicity.

YOUR MORNING GRIN

The purpose of wrinkles is to indicate where smiles have been.

We're glad you're at least smiling.

Ron Motsch
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*Building and Managing a Suite of
The Most Productive and Admired
LED Lighting Systems on Earth*

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