

Homeowner's Forum

Ideas for the Preservation and Conservation of Frank Lloyd Wright Buildings

The Lumiline Lamp

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Prior to the 1930s, in order to achieve a continuous lighting effect other than a point source, there were two options: the neon tube or the Lumiline (an incandescent linear tube lamp). Once the fluorescent lamp was introduced at the World's Fair in 1938, it quickly became the standard for the market because of its lower operational cost and longevity.

It is my understanding that Frank Lloyd Wright experimented briefly with the fluorescent, and Fallingwater is believed to be the first residential installation of fluorescent lighting. Soon after, Mr. Wright returned to specifying the Lumiline, probably for aesthetic reasons. The soft, warm, even glow of this light source provides an enhancing warmth to natural wood and other materials that the harsh fluorescent cannot replicate. Over the years, manufacturers have attempted to develop lamps closer to warm spectrum by controlling the color temperature (rated in Kelvin's), but they still fall short of mimicking true incandescent color rendering qualities.

Generally, Mr. Wright specified "Lumiline Light" with no additional product information or details on the plans. Lumilines were specified for the Bachman-Wilson House, but they were never installed. For some time, I have been curious about researching this subject. It was fairly easy to find out that the Lumiline lamp is still manufactured by General Electric, but I was never able to locate a source for a fixture until now. While visiting many Usonian homes through our consulting work and attending the Frank Lloyd Wright Building Conservancy conferences, I discovered that many homes had functioning Lumiline lamps. Though much more research is needed on this subject, I decided to write a paper and solicit the resources of the Conservancy members as well. It would be particularly important to discover the earliest house in which Lumilines were originally installed.

As it turned out, it was not a fixture that I should have been looking for, but part of an electrical system. After seeing these actual installations in several later homes, I immediately realized that the lamps fit into an electrical wiring raceway system produced by the Wiremold Company, which most architects are familiar with and widely specify today. The system consists of three basic elements and are easy to install once the basic system is understood. The first group of components are the raceway parts which carry the electrical supply; the second are the electrical devices and fittings; and the third, the lamp.

The first group of components, the Wiremold 2100 series, is a metal channel-shaped raceway with a snap-in cover plate. This base channel accepts a variety of modular electrical device accessories designed to fit where desired in place of breakaway sections of the cover plate. The base is produced in 10' lengths that can be cut to fit specific conditions. The cover plate is produced in 5' lengths and provides scoring at 3" increments for easy installation of devices. Additionally, connectors allow for continuous runs and 90 degree corners.

With regard to the other fixture system components, the Lumiline receptacle consists of three pieces: a black phenolic material base and retainer clip by Wiremold, and the end caps which contact the Lumiline lamp, produced by the Leviton Company for Wiremold.

Finally, the actual Lumiline lamp still produced by General Electric is a 'T8' bulb shape, 1" diameter disc base available in 40 watt 12" long, 30 watt or 60 watt 18" long with either a clear or white lens. Receptacles, sockets and other devices may also be snapped in along the raceway system.

In the clerestory of the Bachman-Wilson House living room, we have installed 48 lineal feet of continuous Wiremold with (24) 60 watt 18" long

Lumilines. We have also installed them under cabinets, shelves and at desks as originally specified. The transformation in the quality of light throughout the house is remarkable from both inside and out.

For those preserving original lighting specified by Frank Lloyd Wright, I have recently learned that Leviton will soon discontinue production of the end cap. Without this essential part, Wiremold will most likely do the same. GE has no immediate plans to discontinue production of the lamp. Without the other necessary components available, it is only a matter of time before this lamp will be dropped from production unless demand for it as a replacement continues.

Therefore, those interested in preserving these period lamps in their home should stock up now. Ironically, while the forgotten Lumiline is phasing out, a new generation of incandescent linear tube lamps has recently entered the market. These lamps are manufactured by both Phillips (Philinea) and Osram (Linestra) with fixtures made by Alkco and others. Although the T8 overall size is a bit larger and not quite as elegant, the light quality is very similar and an excellent substitute for the real thing. These lamps are available in a 35 watt 12" long and 60 watt 18" long, as well as 120 watt 40" long, which we often specify for new construction.

Specific installations often require the coordination of many product accessories. It is therefore recommended that homeowners contact their local electrical supply companies for assistance in ordering all the required components.

Unfortunately, Wiremold, Leviton and GE seem to view the Lumiline system solely for the replacement part market. If they collaborated in a new marketing approach, the system could make a successful comeback. Lumiline has just simply been on the shelf too long and forgotten.