

# The Longest Lightbulb

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There is a light bulb in America with a name, and its name is the "Centennial Light". It is the world's longest-lasting electric light. Although it has slightly dimmed over its long life, this incandescent bulb has never burnt out or otherwise failed. It has not required any particular care from the human beings who installed it and turned it on over 115 years ago, save the provision of electricity.

Where the average incandescent bulb lasts about 1,200 hours, the Shelby carbon bulb that hangs at the Livermore-Pleasanton Fire Department ([4550 East Avenue in Livermore, California](#)) has been burning for well over 1,000,000 hours. These types of thick-filament bulbs were among the first commercially available bulbs, and the one in Livermore was installed with not just a little fanfare in the young city's fire hall in 1901. The thicker carbon filament technology, of which the Centennial Light is constructed, was a short-lived product in a burgeoning light bulb manufacturing industry. In part, this was due to their energy inefficiency, and also because they burned relatively less-brightly than their counterparts with thinner filaments, and hotter-burning exotic-metals. Of course such long lasting bulbs were also bad business: how could a small Ohio company like Shelby compete in a market where disposability and fragility would become the norm? How does a company sell more, and more, of its products if their products last forever? Perhaps not surprisingly, the Shelby "lampworks" continued to make bulbs until 1914, when they were absorbed into the General Electric company.

The Phoebus cartel, a consortium of light bulb manufacturers established in the 1920s, which included lighting giants like Philips, General Electric, Osram and others decisively colluded to regulate the light bulb market and the technological advances in their markets. In the interests of generating unnecessary disposability and making more money, the cartel inaugurated a new idea that would become a hallmark of market capitalism's deep-seated expansion, "planned obsolescence". Just as technical advances threatened to elongate the lifespan of lightbulb use by consumers, the cartel recognised that sales were being negatively impacted. A particular style of market expansion through technological failure is inaugurated for the modern age by the Phoebus group, a group that operated unhindered into the late twentieth century. Price fixing, under the guise of protocol or physical standardisation is a common strategy, but under the cartel lightbulbs were deliberately made more fragile, and each

competitor in the cooperative was monitored to ensure they were adhering to product degradation guidelines. A table of these guidelines, published in 1929 lists the amount, in Swiss Francs, that a partner would have to pay to the cartel if certain upper-limit lifetime hours were exceeded. The Phoebus cartel would not outlast disruptions to its coordinated partnership caused by World War II, but it was an innovation of the most neo-liberal sort, demonstrating the potential financial benefit to be wrought through precarity, vulnerability and anti-irreplaceability.



*The most recent photograph from a webcam setup to monitor the Centennial Bulb by the Livermore-Pleasanton Fire Department*