



Weston Model 24 Microammeter / Foot Candle Meter 1905 - 1935

This meter was discovered on-line by my friend David Paschke and is in his possession. The photographs of it on this page are his, included by permission. Examples of this model of meter date from early in the 20th century. An early model (Fig.1) marked up in milliamperes has patent dates listed on it up to July 1901 (Fig.2). David's example, marked up in microamperes (above) shows that, by the time of this meter's production, its range (full-scale-deflection) has been set at 920 microamperes (Fig.3), an increase in sensitivity of just over x10. The serial number is high, indicating that the model 24 had been in production consistently over the intervening period.

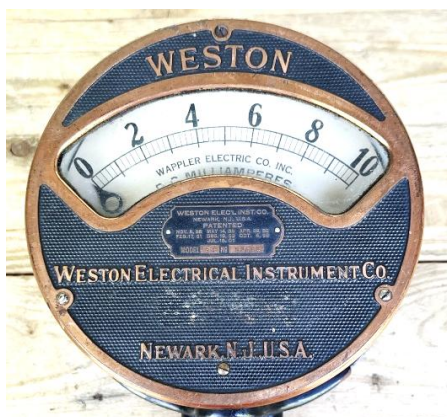


Fig.1(left): The earliest example of the Model 24 Microammeter and the plate listing its patent history, Fig.2 (right). Production date around 1905.

And how long is that intervening time? Well, the startling thing about this meter is that it is marked up, not in microamps, but foot candles. If it is a light meter, where is the photovoltaic cell? There isn't one. But there are two electrical connection posts on its rear.

The answer becomes obvious with another close inspection of the meter face (Fig.4). There we have a specific cell listed, serial number in the mid #5000s.



Fig.3 (left): A close up of the Model 24 reveals the range at full-scale-deflection (F.S.) in microamperes (1/1000th of a milliampere) and a six-figure serial number indicating a late manufacture of the model, probably over more than 30 years. Fig.4 (right): A #5000 cell number is consistent with the production cycle of the Weston model 594 Photronic cell from 1932.

This number is consistent with production of Weston's Model 594 Photronic Cell (Fig.5) in its discreet bakelite housing with external electrical contacts. This was in production consistently from 1932, manufactured in great numbers. With its versatile connectivity it was ideal for laboratory, experimental and specialist industrial applications.



Fig.5: The Weston model 594 Photronic cell of the type that would have been paired with the model 24 meter.

Paired with and calibrated to a specific cell, this type 24 meter would have been used for just such an application where accurate light measurement was a priority. What that application was is anybody's guess. Though the meter could have been manufactured earlier, it couldn't have been in use before 1933 at the earliest. Key information on the meter face is hand-scribed, indicating the care taken at the Weston factory with the matching and setting up of the meter with its photoelectric cell.

Well done David! A really good find.