Rosenberg Electrodynamic Cycle
Lighting System for Building Management

2/15/2015

USS Patent No. 5,463,307
USS Patent No. 8,260,695
Copyright No.TXu-1-820-558
Copyright No.TXu-1-857-798
Popular Electronics 1997

Steven Rosenberg B.Sc.

23829 West Desert Bloom St
Buckeye AZ 85326
Stevenronline@gmail.com
www.Rcdresearch.com
623-238-3991

Description of Rosenberg cycle

The Rosenberg cycle is a means to force classic Edison type lights to output more light while reducing power. Both classic theory and quantum theory explain the high efficiency transforming this type of incandescent light. Low cost in operation and usage meets today's performance needs. Performance data is organized on a comparison basis at 60 watt classic standards. Building management benefits from the low cost per lamp, and reduced power usage.

Building Management system

Neo light is an electronic building lighting system that has several advantages; unified design uses one low cost lamp throughout for a low cost installation. Computer management software measures the power used in industry standard Kilowatt hours for invoice purposes. Lighting costs can be reduced to a level that exceeds mix and match fluorescent and LED lamps.

Electronic quarter cycle power

RMS theory has determined that a portion of the sine wave does not contribute to effective heating of a lamp. That portion of the sine wave deemed ineffective is used to electronically power a lamp. Electronic power of this nature is measured by software to determine billable Kilo Watt hour usage. The smart meter included provides all the functions required for commercial use in energy efficiency lighting area as well as wifi connectivity for monitoring and invoicing.

Electricity source

60 Hz AC power is processed to conduct a fraction of a half cycle. USS patents protect ¼ cycle powers' novel and unique process. The benefits of ¼ cycle power is vastly reduced operating voltage. This allows inexpensive lamps to be both improve efficiency and cost performance. Reliable electronics are designed for this.

Quantum theory

Based upon two theories the lamp is considered to operate in a quantum state. This means the metal matrix is not actually heated to the point of incandescing continuously. The matrix is rapidly excited in a short time. The matrix absorbs the charge applied and emits light as it returns to its base state (non excited). This occurs 60 times per second.

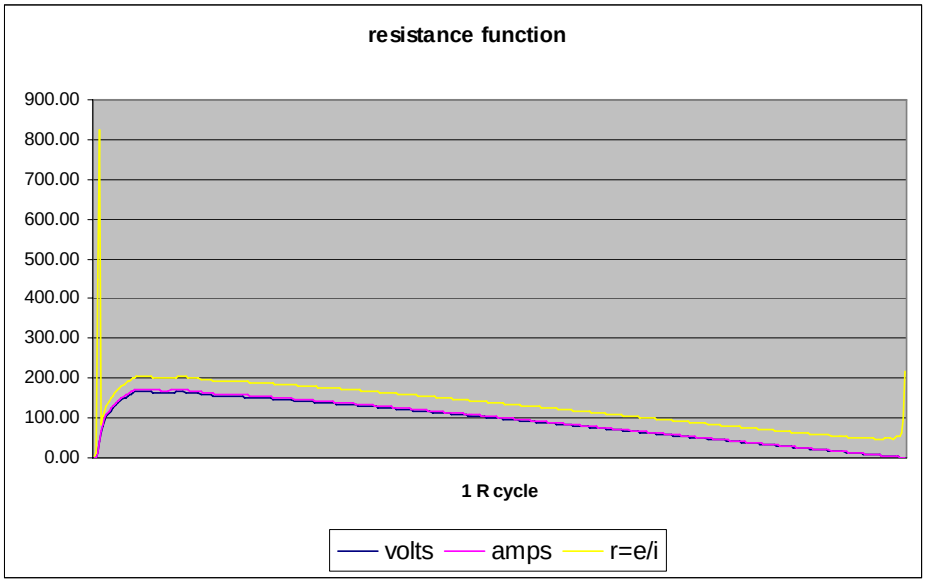
Electro dynamic momentum explains the distinction between the electrical and photonic events. There is an electrodynamics ratio during which the photons are emitted. This disconnects between the electricity and light is quantum interaction known as "discontinuous in its nature".

Hardware Technical specifications

Rosenberg cycle transfers a quantum of energy into a filament in a cycle. The filament emits photon output that continues after power application. The electrodydnamic momentum ratio of the cycle is 1:8. a 2.5ms electronic input results in a output for 16ms, to reach base state, when all energy is released as photons. (D. Bohm.)

Instantaneous voltage and current exceed conventional ratings of classic incandescent devices. Instantaneous power is developed thru thyristor conduction. A delay to about 133 degrees is typical. This method results in average voltage of 9 volts. True power measurement function is: Average load voltage = Epeak / 2π (1+ cosine α). Typically lamps operate form 3 to 5 watts.

The load resistance has a function as well. When the filament is cold at the beginning of a cycle the resistance is low. Application of instantaneous power is absorbed by the load rapidly thusly varying the resistance as matrix becomes energized. The result is a highly efficient transfer of quanta into the filaments' matrix. Peak light output occurs and continues to decrease as energy is dissipated.



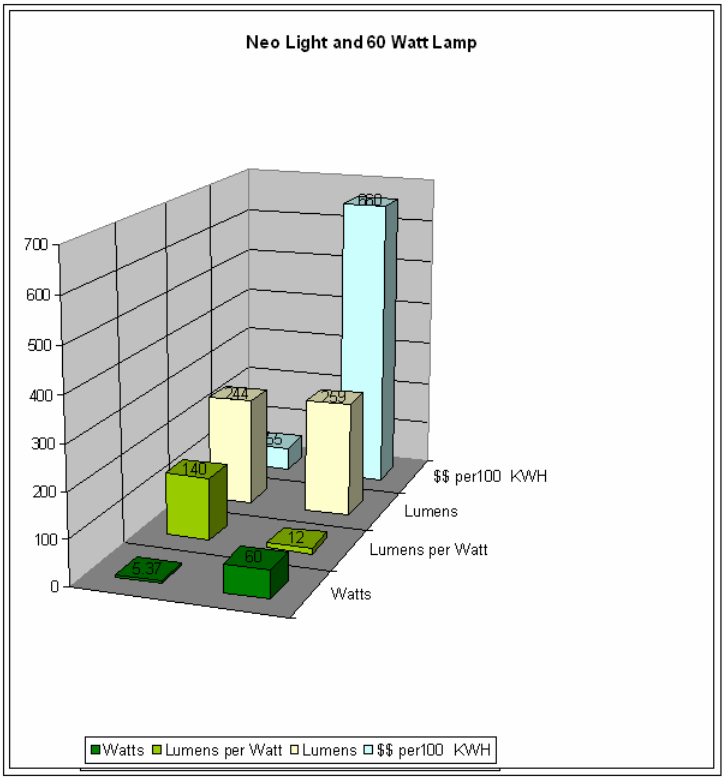
The visible radiation occurs for the duration of time between voltage applications. The result is an optically discontinuous light output, exhibiting a wave shape entirely different than any other incandescence. DC front panel software displays the photon wave shape.

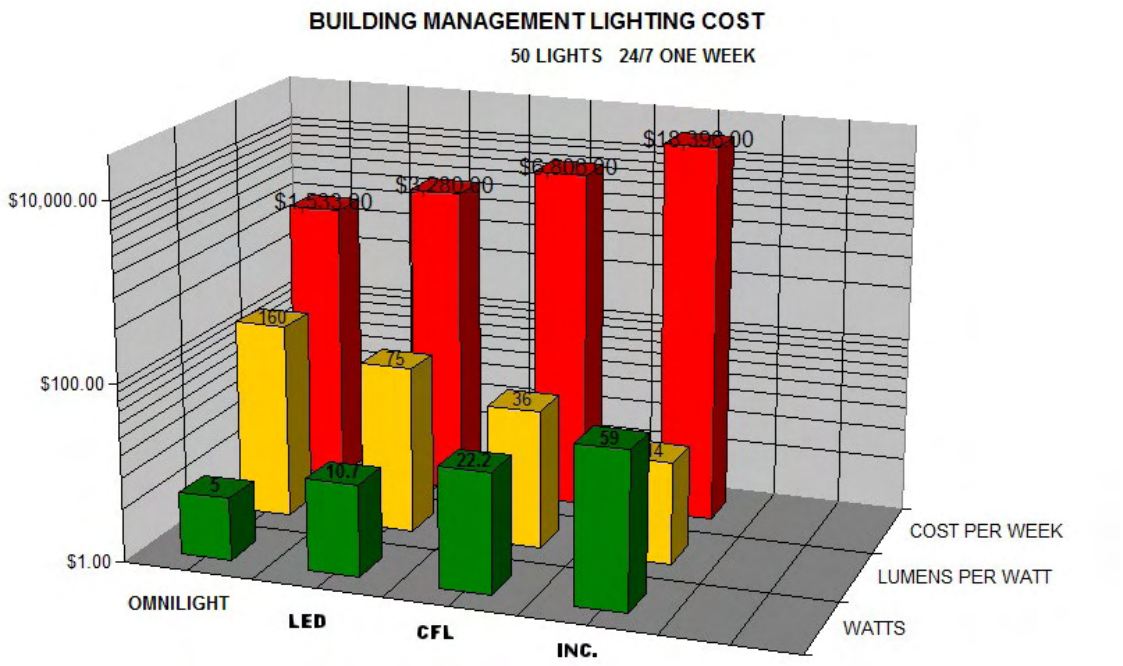
Essentially classic heating of the matrix does not occur. The matrix is excited only during the brief time the electronic energy is applied therefore producing a peak output. This method significantly reduces emissions in the infrared. Since the filament never sustains heating to 1,200 degrees (operating temp) it is much cooler and last longer than classic lights.

HARDWARE

Environmental impact

In the interests of the environment, the use of this technology will reduce carbon emissions and cost consumers less. The lamps are non toxic in construction and very low cost. This technology reliably produces 158 lumens per watt at 5 watts or less. When all the benefits are considered, this system is cost and performance competitive with fluorescent and led lamps.





SOFTWARE

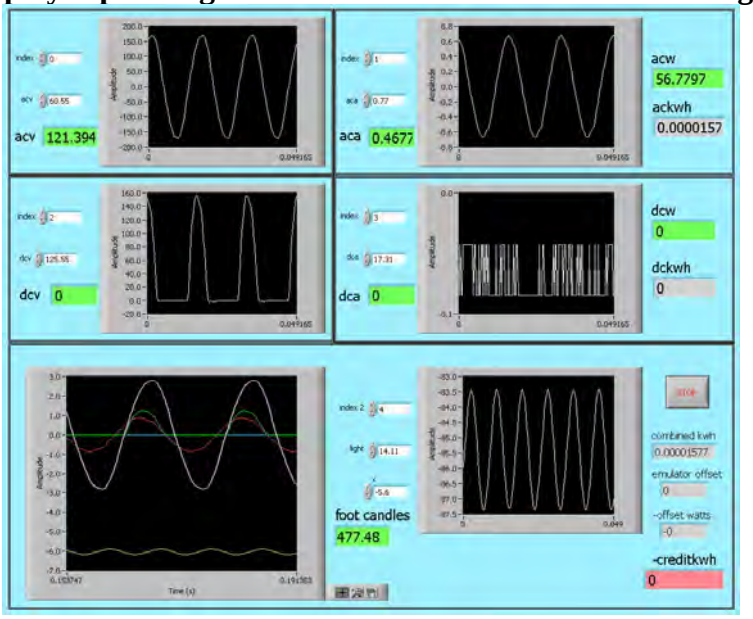
Instrumentation software collects and computes all the variables of the lamp under test. Light output wave shape of emitters tested demonstrate unique profiles. System software is designed to acquire all the necessary data for system operation. Differentiated integral functions provide mean voltage and current for the purpose of computing true power, peak AC volts, CDA and other data required to insure the system is operating properly. Watts per second is processed to provide KWH measurement of the quarter cycle and to produce a credit when industry standard metering cannot measure these variables or correctly compute kilowatt hours.

Software measurement of the energy used here is to produce the same accuracy expected of standard Kilowatt hour meters, of which millions in use world wide. This patented method measures the AC parameters and the DC parameters so a highly accurate kilowatt hour measurement can be made. Further, the software computes any expected error level produced by conventional instruments. Accurate measurement and correct billing information shall result in a credit due to the user.

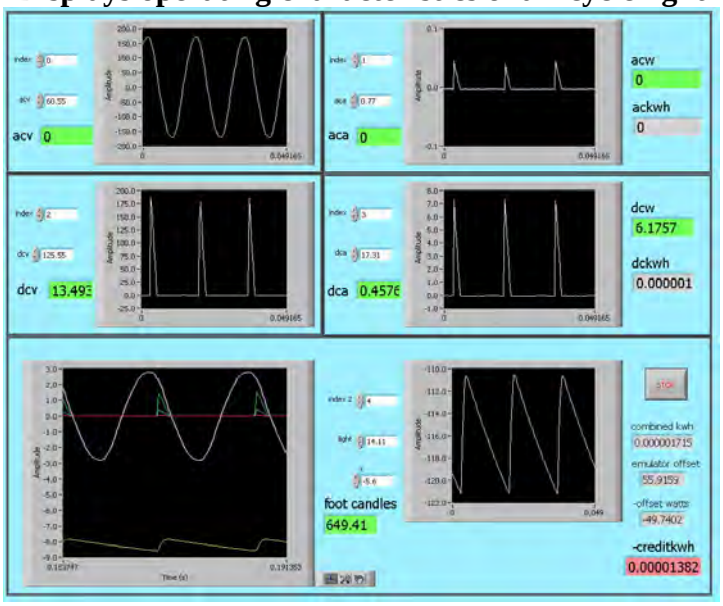
Net metering capable, software instrumentation allow the system to be viewed, operated, diagnosed, read and operated over the internet.

AC system front panel

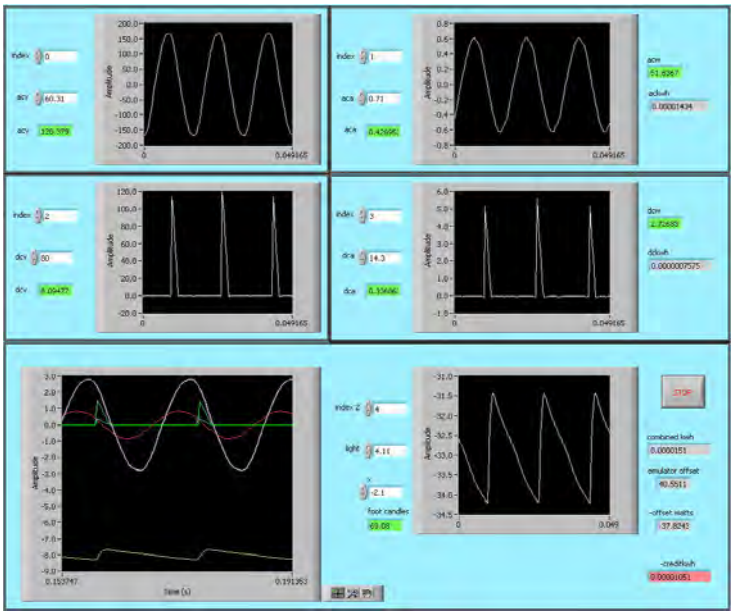
Displays operating characteristics of a standard 60watt light



DC front panel
Displays operating characteristics of a Rcycle light

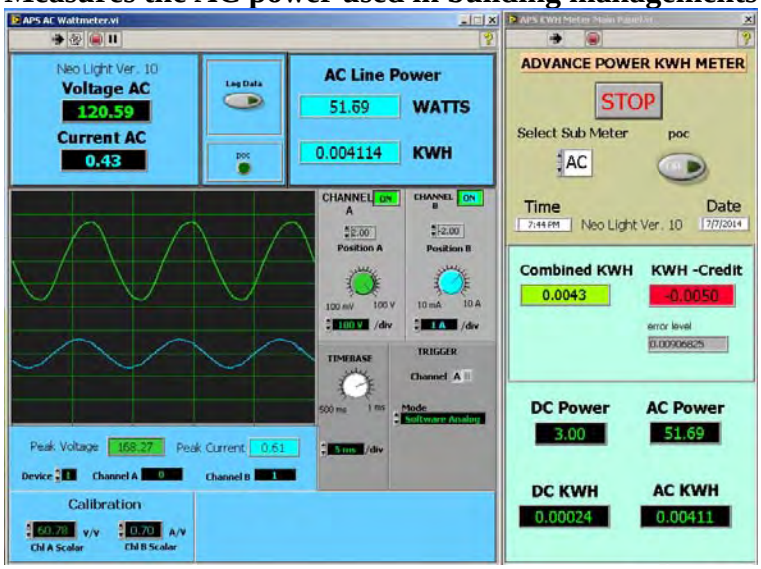


Combined operations
This panel combines AC line and 1/4 cycle line KWH

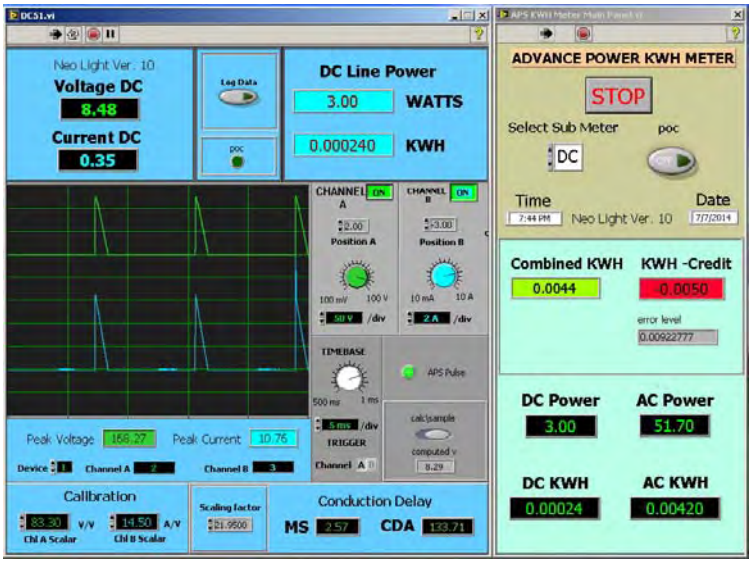


Instrument measurement

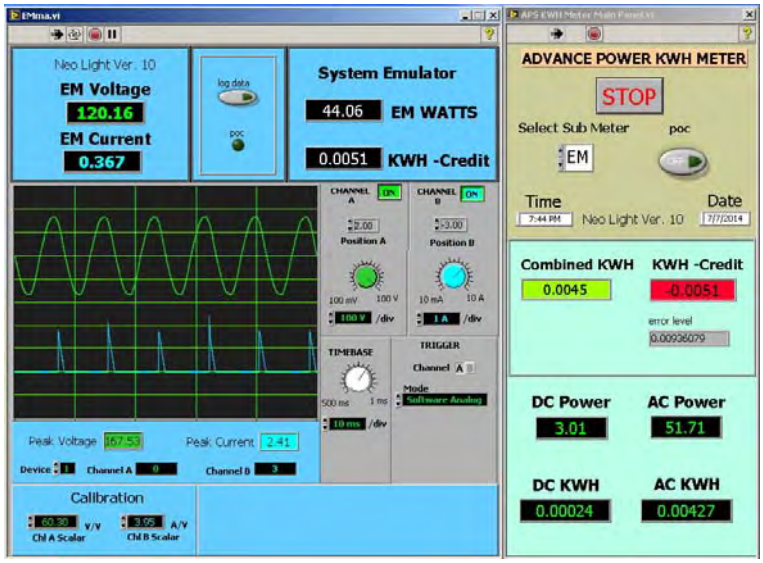
Analyzer software AC
Measures the AC power used in building managements



Analyzer software ¼ cycle line
Measures the quarter cycle power used in building operations



Analyzer software emulator



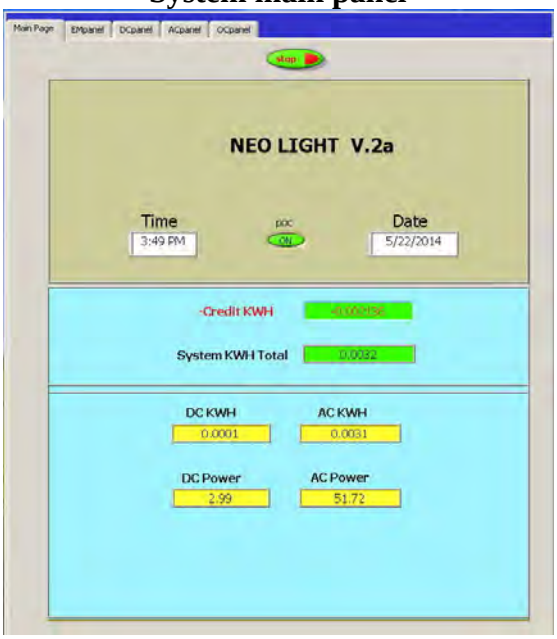
Measures offset encountered in operations with industry KWH meters. The error level is computed and processed to deliver a credit reflecting true power rather than RMS power. A negative credit in KWH is displayed on the first front panel and is applicable during operations to assure the consumer is billed correctly.

Electricity source

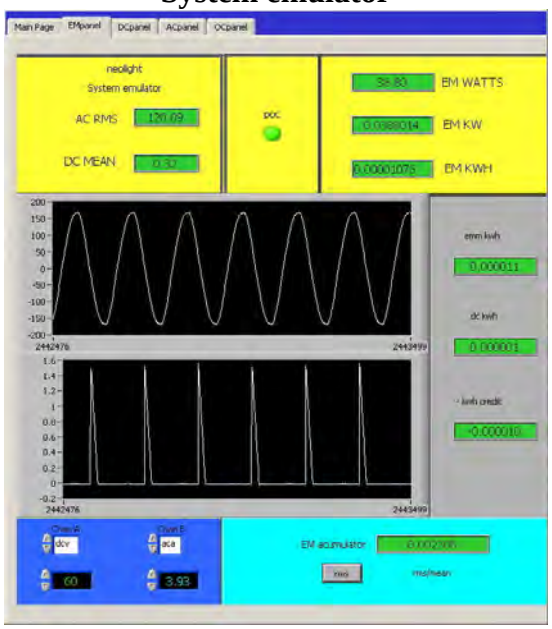
60 Hz AC power is processed to conduct a fraction of a half cycle. USS patents protect ¼ cycle power as it is novel and unique process. The benefits of ¼ cycle power is the vastly reduced operating voltage. This allows low resistance loads to be used improving efficiency and performance.

Net metering software is a commercial ready package that allows operation by internet. National Instruments is the supplier of software for virtual instruments. The hardware requires AD converters a PC running windows and the system software. The equipment is styled to provide maximum up time and continuous operations while resistant to hacking.

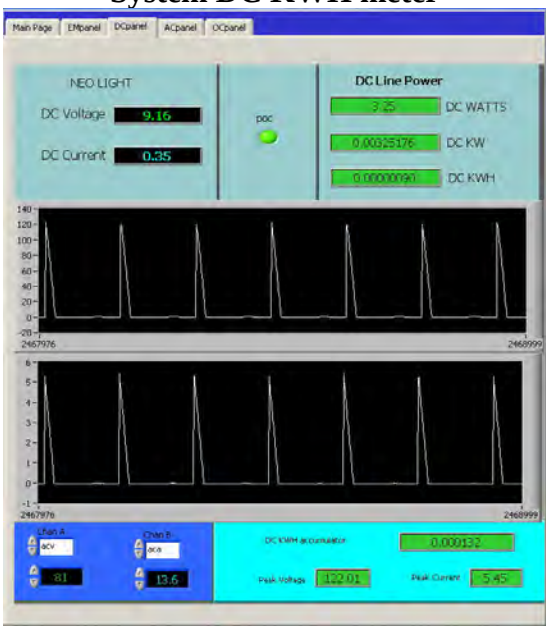
NET Metering
System main panel



System emulator



System DC KWH meter



System AC KWH meter