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[54] **MULTIPLE CHANNEL, MULTIPLE SCENE DIMMING SYSTEM WITH MULTIPLE INDEPENDENT REMOTE DIMMERS**

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[52] U.S. Cl. **315/317; 315/292; 315/318**

[58] Field of Search **315/301, 316, 315/317, 312, 318, 291, 292; 340/825, 825.06, 825.52, 825.53; 250/214 D**

[56] References Cited

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[57] ABSTRACT

A lighting control and dimming system utilizes a single traveler conductor for transmitting analog data signals corresponding to a particular light intensity level of multiple dimmers in a dimmer group. A predetermined binary data word is retrieved from the read-only memory of a remote controller and is transmitted serially in an analog pulse train over the traveler conductor to each dimmer unit. Each dimmer unit includes a microcontroller and read-only memory in which a group of binary numbers are stored. The analog data signal received by each dimmer is converted to binary and is compared bit-by-bit with each binary number stored in the dimmer memory. A serial bit comparator produces an enable signal in response to a bit-by-bit identity match between the converted analog data signal and the preset binary number stored in the dimmer ROM. Dimmers enabled by the transmitted analog data signal produce a predetermined scene at a particular brightness level corresponding with one of the stored binary numbers. The remote dimmers are decoupled from a master controller by a high impedance input circuit.

9 Claims, 7 Drawing Sheets

