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(54) Lighting control device

(57) A lighting device and control means therefor is disclosed. The lighting device consists of a plurality of White LEDs (WLEDs) provided in separate chains all connected parallel. A small number of WLEDs is connected in series in each chain, and a number of such chains are wired together in parallel between a pair of voltage lines from which current is drawn. Current measurement and adjusting means is provided firstly between a high voltage line and all the parallely connected chains, and secondly in each chain. Each current measurement and adjusting means is controlled ideally by a microprocessor which monitors both the total current drawn by all the chains together and also the individual currents flowing in each chain. WLEDs have a tendency to fail when subjected to sudden current increases, and also when operating at extreme temperatures as temperature affects the operating characteristics of diodes in general. It cannot however accurately be predicted whether a particular WLED will fail in open or closed circuit and the invention provides a means of mitigating the effect of failure of one WLED on those which remain functioning in the circuit. The control means immediately increases or reduces the total current flow to all the chains depending on whether a WLEDs fails in short or open circuit. The control means also detects operating temperature and user light intensity requirement and adjusts various currents accordingly.

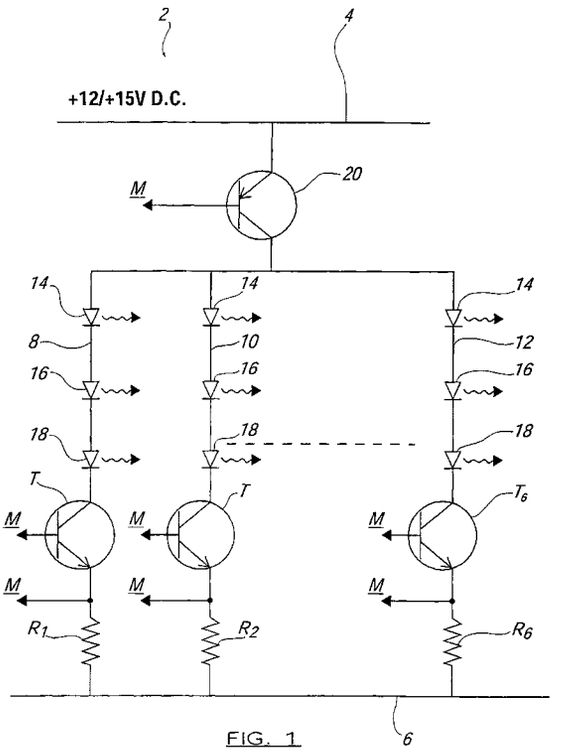


FIG. 1

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Application Number
EP 00 30 6085

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	19 September 2003	Albertsson, E

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