Claims

1. A method for setting a constant wavelength of an LED, the method comprising:
actuating the LED using a pre-set current;
measuring an actual temperature of a control unit arranged in the direct vicinity of the actuated LED; wherein merely passive components are arranged between LED and the control unit;
providing an empirically determined wavelength variation of the LED as a function of a temperature of the LED; and
adapting the pre-set current as a function of the actual temperature and the empirically determined wavelength variation to set (104) the constant wavelength of the LED, wherein the pre-set current is adapted using a stored error function and the error function determines the temperature of the LED as a function of the actual temperature of the control unit.

2. The method according to claim 1, wherein the method is carried out for each of a red-, blue-, green- and white-emitting LED.

3. The method according to either claim 1 , wherein the method is carried out iteratively in such a way that the pre-set current is adapted substantially every two seconds.

4. The method according to claim 1, wherein the pre-set current specifies a current pulse of a pulse-width modulation.

5. The method according to claim 1, wherein the error function provides a compensation value which evens out the wavelength variation of the LED.

6. The method according to claim5, wherein the compensation value takes the form of a compensation factor and/or compensation summand.

7. The method according to claim1, wherein the pre-set current is adapted when an actual wavelength deviates from the target wavelength by more than a threshold.

8. The method according to claim1, wherein the empirically determined wavelength variation specifies a characteristic of the LED.

9. The method according to claim1, wherein the direct vicinity is less than one millimetre.

10. The method according to claim1, wherein the direct vicinity is set using the thickness of an adhesive layer, a silicone layer, a polymer layer, a thermal conduction layer, an aluminium layer and/or a copper layer.

11. The method according to claim1, wherein the control unit is provided as a controller, controller chip, logic circuit, logic gate or microcontroller.

12. A system arrangement for setting a constant wavelength of an LED, comprising:
a control unit set up to actuate the LED using a pre-set current;
at least one measurement sensor set up to measure an actual temperature of the control unit arranged in the direct vicinity of the actuated LED; wherein merely passive components are arranged between the LED and the control unit;
an interface unit set up to provide an empirically determined wavelength variation of the LED as a function of a temperature of the LED; and
a compensation interface set up to adapt the pre-set current as a function of the actual temperature and the empirically determined wavelength variation to set the constant wavelength of the LED, wherein the pre-set current is adapted using a stored error function and the error function determines the temperature of the LED as a function of the actual temperature of the control unit.

13. A computer program product comprising control commands which carry out the method according to claim 1 when executed on a computer.