

# LED LAMP WITH AUTO DIMMER FUNCTION

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## ABSTRACT

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Nowadays, LED is widely used because the world is growing to ECO technology environment. This project is required to arrange and design a circuit of LEDs lamp, LEDs driver, LED casing with auto dimmer function. LEDs are lower power consumption was met the aim.

This circuit need a 240VAC power supply and use a step down transformer to decrease voltage into 12VAC. Converting 12VAC to 12VDC by a bridge rectifier and voltage regulator whether can run the LED lamp until maximum brightness of LED lamp must as bright as 40Watts normal fluorescent lamp.

LDR and transistors are the main components in this project. LDR control by the light incident, given the signal to transistor and reach the target to control the brightness of LED lamp automatically.

Numbers of LEDs using in this circuit, thus compare brightness with fluorescent lamp and in term of efficiency. This LED lamp is using about 20% less energy rather than fluorescent does because this LED lamp used is emitted more light, therefore it consume less energy, they are simply more efficient diode. It is also using less diode to get output more light rather than more diodes that output less light.