



Responsible Lighting and Your Home, Part 2

by Kevin Kell

In Part 1, we looked at a generic back door lighting situation where there was bad bad lighting. There was too much light, it caused a lot of glare, trespassed onto the neighbours property and was shining up in places that we didn't need it. We corrected that by reducing the wattage and by using full cutoff shielding.

In this article, we look at bad driveway lights. Not everyone may have these, but if you are ever thinking of getting them please keep this article in mind.

What is the purpose of driveway lights? In our instance, merely as navigational aids (ie to help us find our driveway, especially as there are deep ditches on either side that love to eat Jettas!). As navigational aids, they just have to be bright enough to be seen from a distance, and not bright enough to read by.

So when we first moved in some years back, there were two 100 watt incandescent light bulbs in the fixtures, truly blinding drivers as they drove by, not to mention being on a dusk to dawn sensor. Applying the tenets of Responsible Lighting to this issue and we find:

a) Use light only where you need and use it : the lights did fulfil a purpose

b) Use full cutoff fixtures to use the light where you want it and no where else. : there were lids on the fixture to stop the light from going up, but they could still be more full cutoff.



c) Use the appropriate wattage and not more than you need: there is too much wattage here to serve its function.

d) Use a motion sensor, or timer to reduce the time of lighting to when it is needed: replace the dusk to dawn

with a programmable dusk+n hours

So out come the 100 watt incandescent bulbs and in went 7 watt Compact Fluorescent bulbs. The 100 watt bulb puts out about 1600 lumens. The CF bulb puts out about 300 lumens.

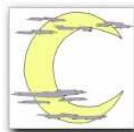


The light output dropped over 5 times, yet still fulfilled the function of navigation aids.



In addition the dusk to dawn sensor switch was replaced by a programmable dusk +4 or +6 hour switch, allowing us to use the light only when we really needed it. A quick calculation shows that we went from 2000 watts/day down to 75 watts/day and still achieved our desired purpose of driveway lights. Or in terms of power bills, down from (2kwh*30days=60kwh@\$0.15=)\$9/month to (0.075kwh*30days=2.25kwh@\$0.15=) 34 cents/month.

This is another example of what you can do in your own home to help reduce light pollution, save energy dollars and promote responsible lighting.



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