

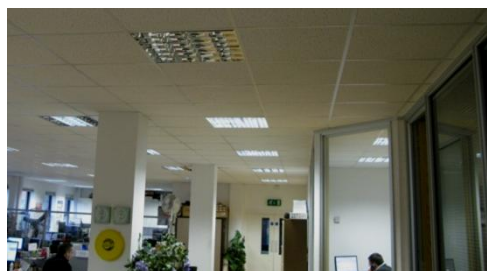
Case Study – GreenCat energy-saving modification for recessed lights

Adaptation of existing fluorescent lights (Carbon Trust project).

Existing lights: 95 Modular fluorescent 4x18Watt T8 tubes with 'Cat 2' diffusers.

Total estimated power used: 44,250 kw/hrs p/a in two buildings

Other previous issues: *Existing lights flickered* with mains a/c hz like all s/start lights
Lighting was not uniform across room (min 119 lux by pillar)
Ceilings/upper-walls were dark despite light reflective floors
(Current advice is that ceilings should be illuminated)



Old



New

Solution chosen:

Reducing number of tubes from 4 per fitting to bright 2 x 21Watt T5
Fit ClickSave 'HO' flicker-free T8-to-T5 tube adapters with reflectors
Fit GreenCat 'wide-awake' direct-indirect diffusers to light-fittings
Light becomes more uniform and ceilings/upper-walls brighter



Room feels lighter, brighter. (Camera on same exposure)

Savings:

New energy consumed: 20,700 kw/hrs p/a

Energy-saving Percentage: 53% (also available in 'HE' version saving **more** energy at approx 63%)

Energy cost saved est: £2,000 p/a " "

Cost of lighting inc tubes: £3,990 (T5 tubes will last approx 3-times longer so maintenance also drops)

Payback years: 2 years

Productivity benefit: Client: "General consensus is positive. People seem to like them"



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