

# CASE STUDY

**Product:** Light Eco® 4.8

**Customer:** Government of Australian Capital Territory

**Customer Contact:** Available upon request

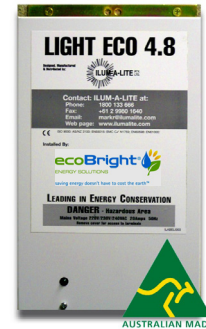
**Location:** 4 Mort Street Braddon ACT Australia

**Investment:** \$20,500

**Annual Savings:** \$17,750

**Return On Investment:** 79% (simple payback = 15 months)

**Greenhouse gas savings per year:** 77 Tonnes of CO<sub>2</sub> equivalent



## Project Description:

An engineering survey of the building at 4 Mort Street in Braddon Australian Capital Territory (ACT), showed that fitting Light Eco® to all 6 floors, performing minor alterations to the air conditioning system and installing reflective film on some of the building's windows would significantly cool the building and enable it to meet the temperature parameters required.

An inspection of the site's fluorescent lights determined that they were electromagnetically ballasted and the original visual estimate predicted Light Eco® 2.4 units would be required.

A tong test showed that the fluorescent lamps were fitted with the older style high loss (9Watt) electromagnetic ballasts—and the higher rated Light Eco® 4.8 units would be needed instead. By combining circuits, the number of Light Eco® 4.8 units required was minimised. It was also shown that lamp temperature dropped by an average of 2°C once Light Eco® 4.8 was fitted.

This 6 level office building situated at 4 Mort Street Braddon ACT is representative of the type of office accommodation available in the area, with central Air Conditioning systems, suspended false ceilings and 2 x 36Watt electromagnetically ballasted fluorescent lamps in troffers in the ceiling.

The building itself was not meeting temperature requirements in the summer months by heating

up excessively leading to higher A/C costs.

The original design of the building allowed approximately 22sqm per person. The current floor design requirements had meant that this space had been reduced to 9sqm per person—with the added provisions of access to a photocopier and each person having their own computer and printer. Energy calculations showed this change as:

- 1 person/22m<sup>2</sup> = 150Watt = 6.8Watt/m<sup>2</sup>
- 1 person/9m<sup>2</sup> = 300Watt = 33.3Watt/m<sup>2</sup>



The building at 4 Mort Street in Braddon, Australian Capital Territory. Photo is © 2009 Google and reproduced with kind permission.

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Complies with A/NZ Standard: 3350.1  
Holds Australian C-Tick Approval: N1759  
Complies with European EMC Standards:  
EN55015, EN60598, EN60742 & EN61000

