

## Case Study: Housing Units



### Details

Location: Manchester, UK

Sector: Commercial

Replacing 50W MR16 halogens with 9W Toshiba MR16 lamps

Installed into existing fixtures

Saving £6,131 per annum

Lux levels maintained -

2700K colour temperature

25 degree beam angle

### Project Brief

Housing units had a large quantity of inefficient halogen lights used in various parts of the store and restaurant. The main public spaces are areas where many of the lights are operating for up to 12h per day and hence offers the largest savings and fastest payback possible.

After initial meetings, it was decided that a full analysis would be carried out proposing LED lighting to replace existing inefficient lighting. This analysis looked at the basic energy savings possible by changing these lights to efficient LED lamps as well as quantifying associated savings, such as replacement benefits and Government levys. As maintenance costs will not be saved, but re-positioned, this was not accounted for.

### Benefits

- Instant 75% energy savings
- Payback in less than three years
- Lifetime lamp changes saved 33,700
- Annual KWh saved 356,000
- Lux levels and appearance of room maintained
- Significant CO2 emission savings
- No initial investment in halogen lamps, making the savings even larger

Project executed by: Truelux Solutions UK