

CASE STUDY HMP PENTONVILLE

HMP PENTONVILLE WAS OPENED IN 1842 AND IS A CATEGORY B+C PRISON.

APPLICATION

Cornice fittings in various wings.

INSTALLED LIGHTING DETAIL

The existing fittings are high security steel cased linear fixtures with 2ft and 4ft T8 style fluorescent tubes. The lights are a mixture of mains and emergency variants.

PROBLEM

The brief was threefold. We must provide energy saving led upgrades, reduce the need for maintenance as access to the fixtures is difficult and increase the level of light to aid the use of CCTV.

SOLUTION

We developed a bespoke linear gear tray utilizing led PCB modules to match the size of the respective 2ft and 4ft fluorescent tubes. By using high performance led products and by raising the gear tray to be closer to the existing diffuser we succeeded in increasing the light level delivered by 40%.

The drivers and emergency control gear were installed on the rear of the new gear tray which was designed to be simply retro fitted into the same fixing centres as the original, so providing a fast install solution.



RESULT

We achieved the requirements of the client by increasing the light levels by 40% and by using 50,000 hour rated led components the maintenance schedule will be considerably improved.

ORIGINAL LOAD

200 – 4F T8 tubes @ 77w = 15,400 watts

NEW LOAD

200 – led replacement @ 44w = 8,800 watts