Benefits of using High Frequency Control Gear in conjunction with Tri-phosphor lamps.

Features of High frequency Operation.
Normal mains frequency is 50 Hz (cycles per second). This means that with conventional control gear (CCG) a fluorescent lamp will flicker 100 times a second and occasionally, a buzzing noise, (50 cycle hum) can be heard from the fittings.

High frequency or electronic control gear (ECG) operates at around 30-50 KHz.

Benefits of High Frequency Fittings.
- Flicker free and silent operation.
- ‘Instant’ starting.
- Detects failed lamps, no more flashing on and off.
- Cold starting in sub-zero temperature.
- No stroboscopic effects.
- 20-30% saving in running costs.

Features of Tri-phosphor Lamps.
Tri-phosphor lamps drop to 96% of their original output after about 4000 hours and remain at that level compared to standard lamps which drop to 86% and then down to 74% over the rest of their life.

Survival rate of 70% of tri-phosphor tubes after 16,000 hours, compared to 10,000 hours for standard tubes.

Approximately 15% increase in light output over standard tubes.

Benefits of Tri-phosphor Lamps.
- Savings in running and lamps replacement costs.
- Savings in initial cost of installation as fewer lamps may be required to maintain the lighting level at its original design level.
**Cost Recovery**

Based on a cost of 11p per kW and a usage of 60 hours per week (which is low ie office use 12hrs pr day – 5 day week)
or a shop at 10hrs per day - 5.5 day week
or go even higher for a call centre! Over 8,000hrs a year

4 x 18w - Yearly savings per fitting - 3000hrs = £8 or 5000hrs = £13

4 x 36w - Yearly savings per fitting - 3000hrs = £16 or 5000hrs = £26

2 x 58w - Yearly savings per fitting - 3000hrs = £12 or 5000hrs = £16

Extra cost of an HF fitting is recovered within one year or less

with
50 HF fittings @ 3000hrs yearly savings of
£400.00+ with 4 x 18w fittings
£800.00+ with 4 x 36w fittings

with
100 HF fittings @ 5000hrs yearly savings of
£1300.00+ with 4 x 18w fittings
£2600.00+ with 4 x 36w fittings