

## **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<BR> 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