

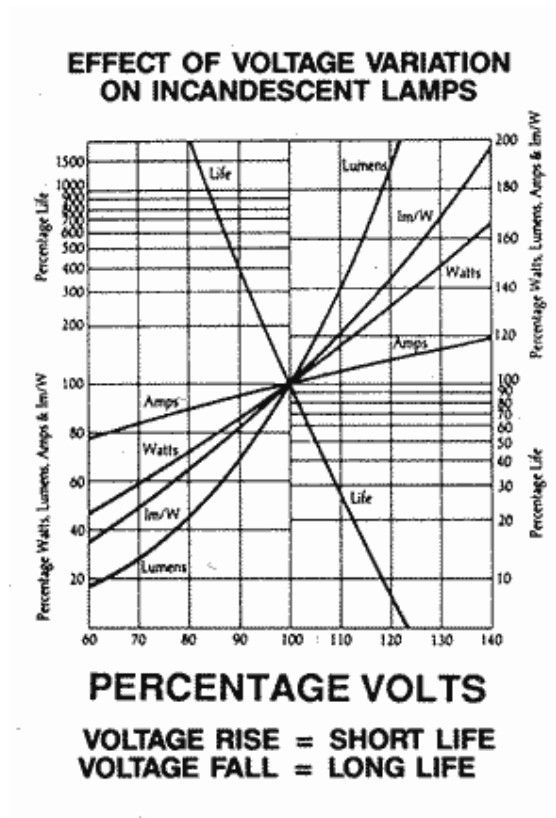
Lamp Performance Data

There is a wide range of lamp types operated in the luminaires in this catalogue. Following are technical parameters for many of these lamps. Short lamp life with incandescent (resistive) types (GLS, tungsten halogen, halogen heat) can be caused by a range of factors including:-

- frequency of switching
- vibration
- operating position
- luminaire thermal performance
- fluctuating mains supply ie voltage effect

Voltage Effects

Voltage variations effect all incandescent lamps. They have the effect of varying filament temperature which in turn increases or decreases lamp life. Figure 1 shows how the lamp efficacy, life, light output and electrical energy consumed - vary with changes in supply voltage. An example of voltage variation taken from the graph shows that a 5 per cent increase in voltage will decrease life by 50 per cent. Conversely a 5 per cent decrease in voltage will increase lamp life by 200 per cent.



Performance Data

INCANDESCENT LAMPS (240V 50Hz)

Type	Wattage (W)	Output (LMS)	Life (HRS)*
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GLS	60W 100W 150W 200W 300W	700 1360 2100 3050 4850	1000 1000 1000 1000 1000
PAR38	150W	2700	2000
T HALOGEN	500W R7's 1000W R7's 1500W R7's 100W K16 150W K13 300W M38 500W M40	9500 21000 33000 1350 2400 5000 8500	2000 2000 2000 2000 2000 2000 2000
H.HEAT	500W 1500W	N/A N/A	7500 7500
*average rated, no warranty		N/A not applicable	

FLUORESCENT LAMPS (240V 50Hz)			
Type	Wattage (W)	Output (LMS)	Life (HRS)
COMPACT	9W 2L 11W 2L 26W 4L 34W 2L 36W 2L 16W 2D (2pin) 28W 2D (4pin) 38W 2D (4pin)	600 900 1800 2800 2900 1050 2050 2850	10000 10000 10000 10000 10000 8000 10000 10000
T5	8W	410	8000
T8	18W standard 36W standard 58W standard 18W tri-phosphor 36W tri-phosphor 58W tri-phosphor	1175 2830 4400 1350 3350 5200	8000 8000 8000 13000 13000 13000
T12	40W TLX	2350	11000
Note: 2D 2 pin 2700K, 2D 4 pin 3500K			

HIGH INTENSITY DISCHARGE (HID) LAMPS

Type	Wattage (W)	Output (LMS)•	Life (HRS)
M.VAPOUR (MV)	50W 80W 125W 250W 400W	1800 3200 6200 12750 22750	8000 8000 8000 24000 24000
M. HALIDE (MH)	70W D.ended* 150W D.ended* 100W clear 100W coated 150W clear 150W coated 175W clear 175W coated 250W clear 250W coated 400W clear 400W coated 1000W clear T 2000W D.ended	5500° 11250° 9000 8500 13500 12600 14000 13250 20500 20500 36000 36000 110000 200000+	7500 7500 10000 10000 7500 7500 10000 10000 7500 7500 15000 15000 12000 6000
MH SPECIAL	150W Arcstream*	11500	6000
HP SODIUM (HPS)	150W clear 150W coated 250W clear 250W coated 400W clear 400W coated 1000W clear T	14500 14000 27500 27000 48000 47000 130000	24000 24000 24000 24000 24000 24000 24000
HPS SPECIAL	400W R7's	48000	24000
SPECIAL HID	1000W CSI PAR64	76000	3500

• vertical burning ° horizontal T=tubular * cool white + MBIL 2000FLD