Table 3.5 Summary of lamp characteristics

Lamp name	Output range (lm)	Power range (W)	Efficacy (lm/W)	Control gear	Colour temp (K)	Colour rendering (Ra)	Run-up time	Dimming	Life (h) (1)	Comments
Incandescent										
GLS	5–12,000	1–1000	8–14	No	2500–2700	100	Instant	Easy to 0%	1,000	Large variety of shapes and sizes of lamp
TH	40–50,000	4–2000	15–25	No (2)	2700–3200	100 (3)	Instant	Easy to 0%	1,500–5,000	
Fluorescent										
T12 (4)	1000–10,500	25–140	50–80	Yes	3000–6500	50 – 90	30 sec	Limited to 25%	8,000–12,000	There are some higher power lamps available for special applications such as cold stores
T8	650–6200	13–70	50–96	Yes	2700–17000	50–98	30 sec	Easy to 2%	8,000–17,000 (5)	
T5	120–8850	6–120	20–93 (6)	Yes	2700–17000	82–95	30 sec	Easy to 2%	8,000–19,000 (5)	
Compact (CFL)										
CFLni (Non integral control gear)	250–9000	8–120	30–70	Yes	2700–6500	85–90	15–90 sec	Some types to 5%	Up to 15,000 (5)	
CFLi (Integral control gear)	100–1500	5–30	20–50	No	2700	> 80	60 sec	Some types to 20%	5,000–15,000	
High pressure mercury										
MBF/HPL	2000–58,500	60–1040	33–57	Yes	3200–3900	40–50	4 min	No	8,000–10,000	
Metal halide lamps										
Quartz tube	5,200–200,000	85–2050	60–98	Yes	3000–6000	60–90	1–8 min	No	2,000 – 7000	
Ceramic Tube	1,600–26,000	20–250	65–97	Yes	3000–4400	78–93	2 min	Limited (7)	6,000–10,000	The lamp range is increasing rapidly