



GE Lighting

High Pressure Mercury Lamps
Kolorlux™ Standard 50W, 80W, 125W, 250W, 400W, 700W, 1000W
Kolorlux™ Deluxe 50W, 80W, 125W, 250W, 400W

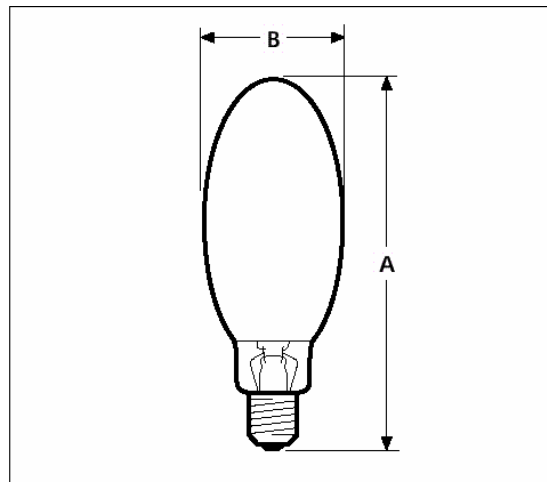
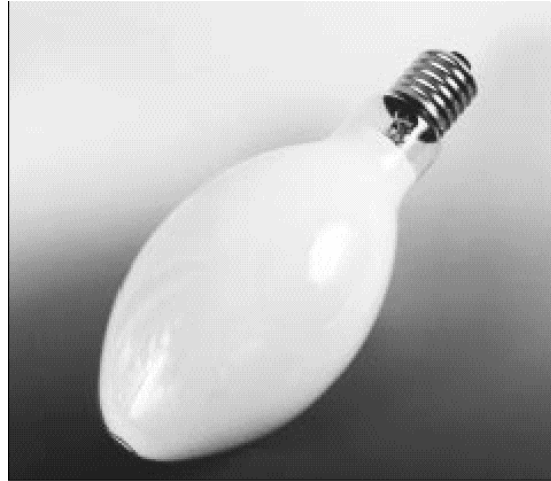
Applications

Low running costs, long life, compact size, and a white light make the Kolorlux™ lamp suitable for a wide range of applications where economy is of prime consideration, but where some differentiation of colours is needed. Kolorlux™ Deluxe Lamps utilise an enhanced phosphor coating which provides additional benefits of increased light output, improved colour rendition and warmer appearance.

- Road lighting
- Amenity areas
- Security
- Car parks
- Area floodlighting
- Warehousing
- Industrial units

Compliance with IEC Standards

All Kolorlux™ Lamps comply with IEC 60188.



Physical Data

Watts	A Length (mm)	B Diameter (mm)	Cap	Bulb Glass	Mass (g)	Operating Position
Kolorlux™ Standard						
50	130	55	E27	Soft	53	Universal
80	156	70	E27/B22-d3	Soft	63	Universal
125	170	75	E27/B22-d3	Soft	83	Universal
250	227	90	E40	Hard	160	Universal
400	292	120	E40	Hard	230	Universal
700	330	140	E40	Hard	625	Universal
1000	380	160	E40	Hard	830	Universal
Kolorlux™ Deluxe						
50	130	55	E27	Soft	53	Universal
80	156	70	E27	Soft	63	Universal
125	170	75	E27	Soft	83	Universal
250	227	90	E40	Hard	160	Universal
400	292	120	E40	Hard	230	Universal

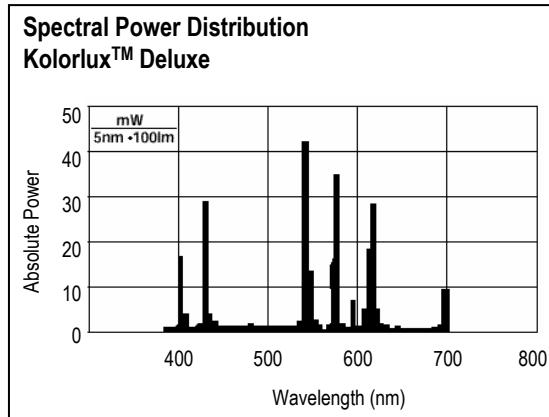
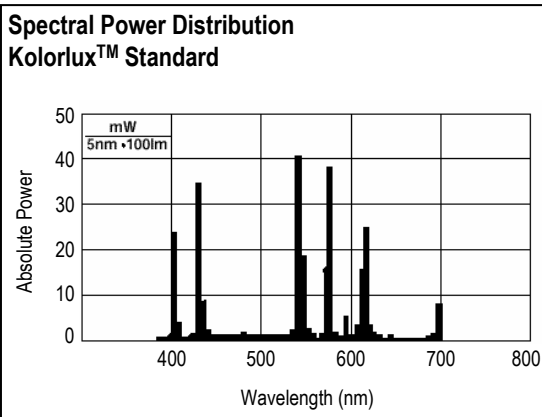
* On 220V Supply.



Photometric Data

Watts	100 Hr. Lumens	Colour Temp. (K)	Chromaticity Co-ordinates		Ra	DIN5035 Class.
			x	y		
Kolorlux™ Standard						
50	1800	4000	0.390	0.390	40	3
80	3800	4000	0.390	0.390	40	3
125	6300	4000	0.390	0.390	40	3
250	13000	4000	0.390	0.390	40	3
400	22500	4000	0.390	0.390	40	3
700	40000	4000	0.390	0.390	40	3
1000	57000	4000	0.390	0.390	40	3
Kolorlux™ Deluxe						
50	2000	3500	0.405	0.390	57	3
80	4000	3400	0.410	0.393	57	3
125	6500	3350	0.414	0.395	55	3
250	14000	3350	0.414	0.395	55	3
400	24000	3400	0.410	0.393	50	3

Photometric data is quoted for the lamp in a vertical orientation operating from a nominal ballast at rated supply volts.



Electrical Data

Data are based on a nominal lamp operating on a nominal choke (reactor) ballast with power factor correction. Supply power is based on a typical commercially available ballast.

Lamp Data

Watts	Volts ± 15 (V)	Current (A)	Power (W)	Current Crest Factor
50	95*	0.60	50	1.8
80	115	0.80	80	1.8
125	125	1.15	125	1.8
250	130	2.15	250	1.8
400	135	3.25	400	1.8
700	140	5.45	700	2.0
1000	145	7.5	1000	2.0

* 95 \pm 10V

Lamp Survival and Lumen Maintenance

The graph shows the survival of representative groups of lamps operated under controlled conditions at 10 hrs/start. Lamp life in service will be affected by a number of parameters, such as mains voltage deviations, switching cycle, luminaire design and control gear. The information given is intended to be a practical guide in determining lamp replacement schedules.

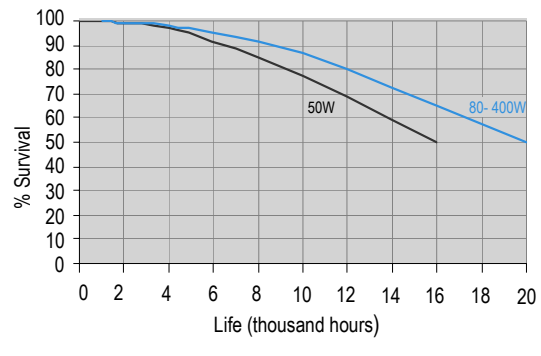
Lamp Survival (%)

Watts	Hours (Thousands)						
	0.1	2	4	8	12	16	20
Kolorlux™ Standard & Kolorlux™ Deluxe							
50	100	99	97	85.2	69	50	–
80	100	99.5	98	91.5	80	65	–
125	100	99.5	98	91.5	80	65	50
250	100	99.5	98	91.5	80	65	50
400	100	99.5	98	91.5	80	65	50
Kolorlux™ Standard							
700	100	99.5	98	91.5	80	65	50
1000	100	99.5	98	91.5	80	65	50

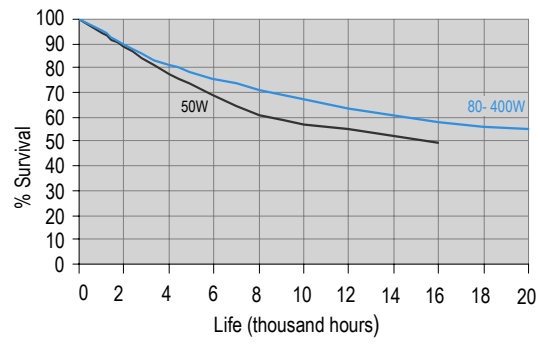
Lumen Output (Thousands)

Watts	Hours (Thousands)						
	0.1	2	4	8	12	16	20
Kolorlux™ Standard							
50	1.8	1.6	1.4	1.1	1.0	0.9	–
80	3.8	3.4	3.1	2.7	2.4	2.2	2.1
125	6.3	5.7	5.2	4.4	3.9	3.6	3.4
250	13.0	11.8	10.7	9.1	8.0	7.4	7.0
400	22.5	20.4	18.6	15.7	13.9	12.9	12.2
700	40.0	36.0	32.8	28.0	25.2	23.2	21.6
1000	58.0	54.0	47.5	40.6	36.5	33.6	31.3
Kolorlux™ Deluxe							
50	2.0	1.8	1.6	1.3	1.1	1.0	–
80	4.0	3.6	3.3	2.8	2.5	2.3	2.2
125	6.5	5.9	5.4	4.5	4.0	3.7	3.5
250	14.0	12.7	11.6	9.8	8.7	8.0	7.6
400	24.0	21.7	19.8	16.8	14.9	13.7	13.0

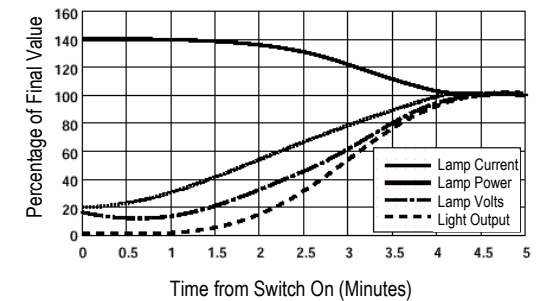
Lamp survival



Lumen maintenance



Typical Run-up Characteristics



Run-Up Characteristics

Time for the light output to reach 90% of the final value is determined by supply voltage and ballast design. Typical values are:

Run-up (Minutes)	0	2	2	2	2	2	2
Watts	20	80	125	250	400	100	1000

Hot Re-strike Time

All ratings re-strike within 4-7 minutes following a short interruption in the supply. Actual re-strike time is determined by cooling rate of the lamp.

Supply Voltage

Lamps are suitable for supplies in the range 220V to 250V 50/60Hz for appropriately rated series choke (reactor) ballasts. Supplies outside this range require a transformer (conventional, high reactance or CWA) to ensure correct lamp operation. Lamps start and operate at 10% below the rated supply voltage when the correct control gear is used. However in order to maximise lamp survival, lumen maintenance and colour uniformity the supply voltage and ballast design voltage should be within $\pm 3\%$. Supply variations of $\pm 5\%$ are permissible for short periods only.

Control Gear

It is indispensable to use a ballast appropriate to the supply voltage at the luminaire.

Fusing of Circuits

For a very short period after switch-on, all discharge lamps may act as a partial rectifier and as a result the ballast may allow several times the normal supply current to flow. To avoid nuisance fuse failure the ratings shown below should be used.

For further information refer to the publication "Fuse Ratings for Discharge Lamps" available from GE Lighting. MCB (type 3 or 4) or HBC fuse ratings for single and multiple installations: (A)

Watts	No. of Lamps					
	1	2	3	4	5	6
50	4	4	4	4	4	4
80	4	4	4	4	6	6
125	4	4	6	10	10	10
250	10	16	16	20	20	20
400	16	20	20	25	25	25
700	16	20	25	32	32	40
1000	20	25	32	40	50	63

GUIDANCE FOR LUMINAIRE MANUFACTURERS

Lamp Operating Temperature Limits

Maximum Cap Temperature

50-125W:	125°C
250-1000W:	210°C

Maximum Bulb Temperature

50W-125W	300°C
250-1000W:	400°C

Control Gear

To achieve correct lamp starting, performance and life it is important that lamp and control gear are compatible and suitably rated for the supply voltage at the luminaire.

Ballasts

Lamps are fully compatible with ballasts manufactured for high pressure mercury lamps to IEC60188. Ballasts should comply with specifications IEC60262.

Ballast Thermal Protection — Use of ballasts incorporating thermal cut-out is not a specific requirement but is a good optional safety measure for the installation.

Ballast Voltage Adjustment — Series choke (reactor) ballasts incorporating additional tapplings at $\pm 10V$ of the rated supply voltage are recommended. Alternatively a single additional tapping 10V above the rated supply voltage will ensure lamps are not over-loaded due to excessive supply voltage.

PFC Capacitors for Choke (Reactor) Circuits

Power Factor Correction is advisable in order to minimise supply current and electricity costs. For 220-250V supplies 250V $\pm 10\%$ rated capacitors are recommended as follows:

IEC Capacitor (µF) @ 25°C	20	30	45	60	80	100	150
220-250V	20	30	45	60	80	100	150



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GE Lighting is constantly developing and improving its products. For this reason, all product descriptions in this publication are intended as a general guide, and we may change some specifications from time to time in the interest of product improvement
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