



Strong light and  
a long tradition.

OSRAM HQL®

勝特力材料 886-3-5753170  
勝特力电子(上海) 86-21-54151736  
勝特力电子(深圳) 86-755-83298787  
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SEE THE WORLD IN A NEW LIGHT

**OSRAM**





## Welcome everywhere: the HQL® family from OSRAM

With their extremely reliable and robust technology, high intensity and long life HQL® high-pressure mercury lamps from OSRAM have been successfully used for a wide range of applications in both indoor and outdoor lighting for more than 70 years. With so many different types to choose from they offer the right output and light colour for almost every possible lighting task.

### Major benefits of HQL® lamps

- Long life for long relamping intervals
- No igniters for simpler luminaire design
- Wattages from 50 to 1000 W and different light colours for the optimum light for different applications

### Major applications of HQL® lamps

- Outdoor lighting for squares, residential areas, parks and main roads and trunk roads
- Lighting for car parks and industrial sites
- HQL® DE LUXE also for factory lighting, effect lighting and decorative plant lighting



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## The universal classic: HQL® STANDARD

HQL® STANDARD high-pressure mercury lamps have a yttrium vanadate phosphor. They are suitable for all traffic and factory lighting applications.

### Features

- High-pressure mercury lamps, elliptical, coated
- 7 wattages: 50, 80, 125, 250, 400, 700, 1000 W
- High luminous efficacy: up to 57 lm/W (for a 700 W lamp)
- Light colour: Neutral White
- Burning position: universal
- Base: E27 and E40 (from 250 W upwards)
- Long average lamp life: 15,000 - 20,000 hours
- 2 to 3 years of use, operating for 11 hours per day

### Applications

Street lighting, parks and gardens, car parks, other areas allocated to traffic, industrial sites, factories

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## Up to 10% more light: HQL<sup>®</sup> DE LUXE

HQL<sup>®</sup> DE LUXE lamps have a warmer light colour, better colour rendering and greater light output than standard HQL<sup>®</sup> lamps, which makes them even more versatile, opening up a wide range of indoor and outdoor applications.

### Features

- High-pressure mercury lamps, elliptical, coated
- 5 wattages: 50, 80, 125, 250, 400 W
- High luminous efficacy: up to 60 lm/W (for a 400 W lamp)
- Light colour: Warm White
- Burning position: universal
- Base: E27 and E40 (from 250 W upwards)
- Long average lamp life: 20,000 hours
- 2 to 3 years of use, operating for 11 hours per day

### Applications

Street lighting, parks and gardens, car parks, other areas allocated to traffic, industrial sites, factories



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## Light colour similar to that of an ordinary light bulb: HQL® SUPER DE LUXE

Because their light colour is similar to that of ordinary light bulbs, HQL® SUPER DE LUXE lamps are ideal for a wide range of outdoor applications, particularly prestige lighting for streets, squares and paths.

### Features

- High-pressure mercury lamps, elliptical, coated
- 3 wattages: 50, 80, 125 W
- Luminous efficacy: up to 46 lm/W (for a 125 W lamp)
- Light colour: Warm White
- Burning position: universal
- Base: E27
- Long average lamp life: 20,000 hours
- 2 to 3 years of use, operating for 11 hours per day

### Applications

Street lighting, historic town centres, pedestrian precincts, pathways in parks and gardens

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## 25% longer life: HQL<sup>®</sup> 4Y<sup>®</sup>

Thanks to the new HQL<sup>®</sup> 4Y<sup>®</sup> lamps from OSRAM, replacing lamps in outdoor installations and street lighting is no longer an everyday event. The relamping cycle can be extended to four years.

Every lamp that needs replacing in an outdoor installation costs a great deal of time and money. Increasing the life of the lamps and reducing the premature failure rate therefore have a major influence on overall lighting costs. The new HQL<sup>®</sup> 4Y<sup>®</sup> lamps score highly on both counts. Firstly, their average life has been increased to 25,000 hours (corresponding to around four years of use in an outdoor installation) and secondly the failure rate has been reduced to 10% after 16,000 hours.

HQL<sup>®</sup> 4Y<sup>®</sup> lamps represent enormous potential savings. Switching from a three-year relamping cycle to a four-year cycle reduces the average annual relamping costs by around 25%.

### Features

- High-pressure mercury lamps, elliptical, coated
- 3 wattages: 50, 80, 125 W
- High luminous efficacy: up to 54 lm/W (for a 125 W lamp)
- Light colour: Warm White
- Burning position: universal
- Base: E27
- Very long average lamp life: 25,000 hours
- 4 years of use, operating for 11 hours per day

### Applications

Street lighting, parks and gardens, car parks, other areas allocated to traffic, industrial sites, factories



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### Decorative spherical lamps: HQL® -B SUPER DE LUXE

With their golden internal coating, HQL®-B SUPER DE LUXE lamps are perfect for decorative indoors and outdoor applications. The large spherical surface distributes the light, similar to that from an ordinary light bulb, without causing glare. The lamps have such a large volume that the surface does not get hot. This means that the lamps are splash proof.

#### Features

- High-pressure mercury lamps, spherical, coated
- 2 wattages: 50, 80 W
- Luminous efficacy: up to 38 lm/W (for a 80 W lamp)
- Light colour: Warm White
- Burning position: universal
- Base: E27
- Long average lamp life: 20,000 hours
- 2 to 3 years of use, operating for 11 hours per day

#### Applications

Street lighting, historic town centres, pedestrian precincts, pathways in parks and gardens

### Mushroom-shaped reflector lamp: HQL® -R DE LUXE

The mushroom-shaped HQL®-R DE LUXE with reflector provides warm white light and pleasant colour properties.

#### Features

- High-pressure mercury lamp, reflector, coated
- 80 W
- Luminous efficacy: 38 lm/W
- Light colour: Warm White
- Burning position: universal
- Base: E27
- Long average lamp life: 20,000 hours
- 2 to 3 years of use, operating for 11 hours per day

#### Applications

Decorative plant lighting

#### Operating instruction and technical information

The lamps must be connected using suitable control gear. The permitted fluctuation in mains voltage for HQL® is  $\pm 10\%$ . Sudden fluctuations in mains voltage of more than 10% may cause the lamp to go out. Changes in colour and luminous flux are possible if there are long-term deviations from the rated supply voltage (230 V) for HQL® lamps. Lamp life may also be reduced. Operating high-pressure lamps for short periods in combination with frequent on/off switching will shorten their life.

#### End of life

HQL® lamps reach their end of life when

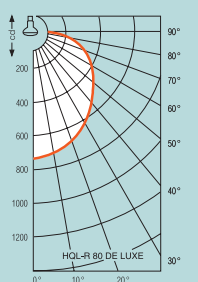
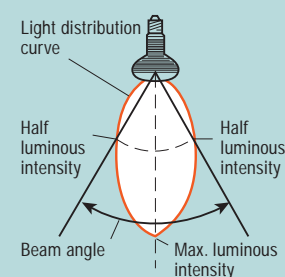
- the light colour of the lamp changes dramatically or
- there is a significant loss of brightness or
- the lamp no longer ignites or
- the lamp starts to cycle (periodically goes out and ignites again).

To protect the control gear and to avoid unnecessary radio interference, HQL® lamps must be replaced as soon as they come to the end of their life. To ensure the roads or workplaces remain safe the lamps should be replaced in groups every two years. Any lamps that fail earlier than this should be replaced as soon as possible. All lamp-specific electrical and photometric data is measured after 100 hours of operation under laboratory conditions on reference equipment. Full luminous flux is reached about five minutes after the lamp is switched on. The start-up current is around 40% higher. The luminous flux is virtually unaffected by the ambient temperature outside the luminaire.

#### Ignition

HQL® lamps become less and less willing to ignite as they get older, and this depends to a large extent on the supply voltage at the fixture. HQL® lamps ignite on mains voltage from around 200 V. At ambient temperatures lower than  $-18^{\circ}\text{C}$  HQL® lamps generally only ignite if the full mains voltage is available (230 V). Hot lamps need a few minutes to cool down before they can be restarted.

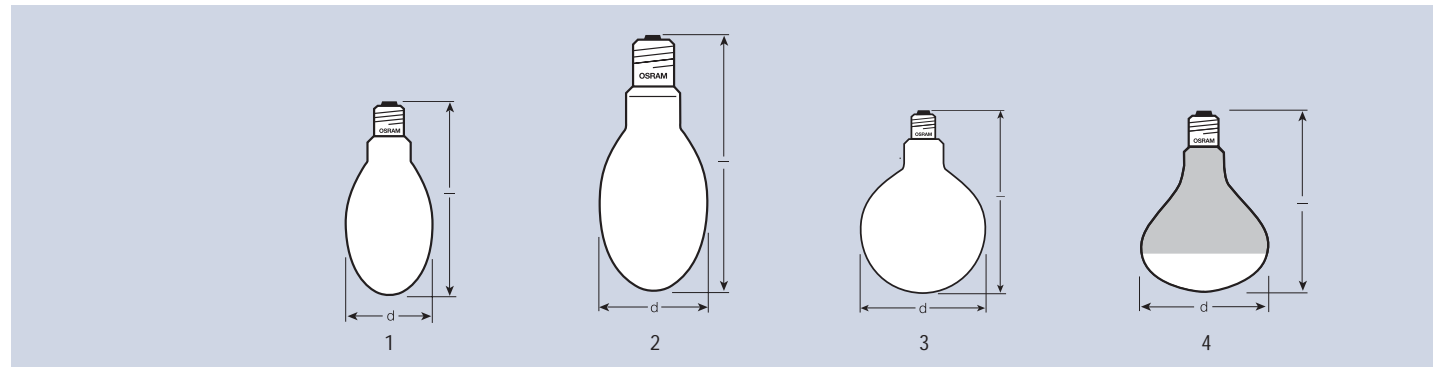
#### Luminous intensity distribution of the reflector lamp



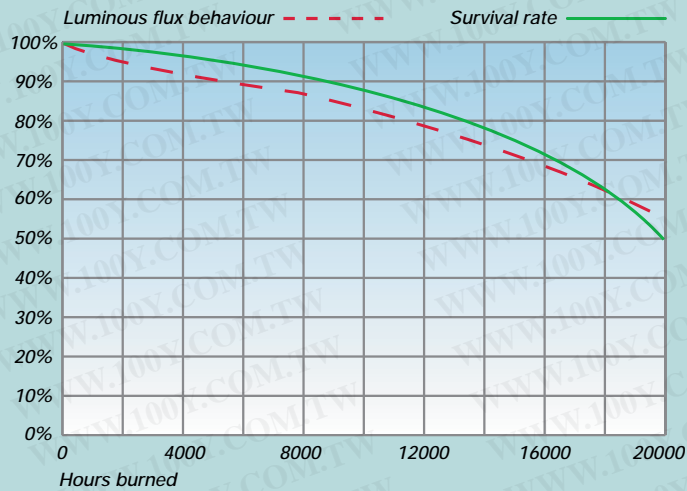
The beam angle is the angle in the rotationally symmetrical luminous intensity distribution at which the luminous intensity is half its maximum value.

HQL® -R 80 DE LUXE

## Technical data

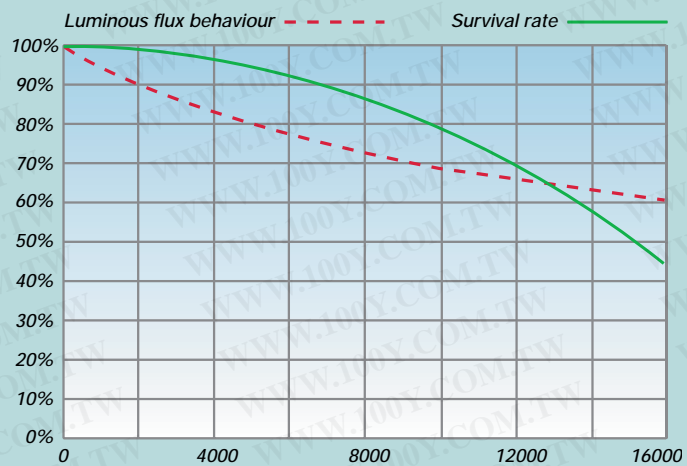


### Typical luminous flux behaviour and survival rate



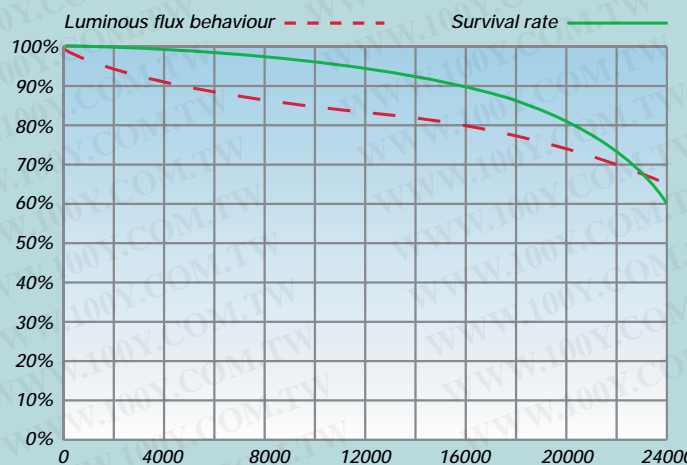
Hours burned

HQL® STANDARD (50 – 400 W), HQL® DE LUXE, HQL® SUPER DE LUXE,  
HQL®-B SUPER DE LUXE, HQL®-R DE LUXE



Hours burned

HQL® 700, HQL® 1000



Hours burned

HQL® 4Y®

Product reference	HQL® (Standard) elliptical, coated							
	50 W HQL 50	80 W HQL 80	125 W HQL 125	250 W HQL 250	400 W HQL 400	700 W HQL 700	1000 W HQL 1000	
EAN 4050300	-	015040	012360	012377	015064	015071	629148	015095
Lamp wattage	W	50	80	125	250	400	700	1000
System wattage (with CCG)	W	59	89	137	266	425	740	1045
Lamp voltage	V	95	115	125	130	135	140	145
Lamp current	A	0,60	0,80	1,15	2,15	3,25	5,40	7,50
Mains current comp. at cos.φ ≥ 0,9	A	0,27	0,41	0,6	1,2	1,9	3,6	5
Luminous flux	lm	1800	3800	6300	13000	22000	40000	57000
Lamp luminous efficacy	lm/W	36	48	50	52	55	57	57
Average luminance	cd/cm <sup>2</sup>	4,0	5,0	7,0	10,0	10,5	13,0	16,0
Colour rendering group	-	3	3	3	3	3	3	3
Colour rendering index	R <sub>a</sub>	50	50	50	46	44	43	43
Light colour	-	Neutral White						
Colour temperature	K	4200	4200	4200	4000	4000	4000	4000
Diameter	mm	55	70	75	90	120	140	165
Length max. l	mm	130	156	170	226	290	330	390
Base	-	E27	E27	E27	E40	E40	E40	E40
Burning position	-	universal						
Max. perm. outer bulb temp.	°C	310	310	310	350	380	380	380
Max. perm. base edge temp.	°C	210	210	210	250	250	250	250
Comp. cap. at 50 Hz cos.φ ≥ 0,9	μF	7	8	10	18	25	40	60
Average lamp life	h	20000	20000	20000	20000	20000	15000	15000
Standard pack	Units	40	40	40	12	6	6	6
Fig. no.	-	1	1	1	2	2	2	2

Product reference	HQL® SUPER DE LUXE elliptical, coated			
	50 W HQL 50 SUPER DE LUXE	80 W HQL 80 SUPER DE LUXE	125 W HQL 125 SUPER DE LUXE	
EAN 4050300	-	015217	015224	018515
EAN 4008321 (only for 4Y)	-	-	-	-
Lamp wattage	W	50	80	125
System wattage (with CCG)	W	59	89	137
Lamp voltage	V	95	115	125
Lamp current	A	0,60	0,80	1,15
Mains current comp. at cos.φ ≥ 0,9	A	0,27	0,41	0,6
Luminous flux	lm	1600	3400	5700
Lamp luminous efficacy	lm/W	32	43	46
Average luminance	cd/cm <sup>2</sup>	3,0	4,0	6,0
Colour rendering group	-	2B	2B	2B
Colour rendering index	R <sub>a</sub>	60	60	60
Light colour	-	Warm White		
Colour temperature	K	3200	3200	3200
Diameter	mm	55	70	75
Length max. l	mm	130	156	170
Base	-	E27	E27	E27
Burning position	-	universal		
Max. perm. outer bulb temp.	°C	310	310	310
Max. perm. base edge temp.	°C	210	210	210
Comp. cap. at 50 Hz cos.φ ≥ 0,9	μF	7	8	10
Average lamp life	h	20000	20000	20000
Standard pack	Units	40	40	40
Fig. no.	-	1	1	1

Product reference	HQL® 4Y® elliptical, coated			
	50 W HQL 50 4Y	80 W HQL 80 4Y	125 W HQL 125 4Y	
EAN 4050300	-	097859	097811	097835
Lamp wattage	W	50	80	125
System wattage (with CCG)	W	59	89	137
Lamp voltage	V	95	115	125
Lamp current	A	0,60	0,80	1,15
Mains current comp. at cos.φ ≥ 0,9	A	0,27	0,41	0,6
Luminous flux	lm	2000	4000	6800
Lamp luminous efficacy	lm/W	40	50	54
Average luminance	cd/cm <sup>2</sup>	4,0	5,0	7,0
Colour rendering group	-	3	3	3
Colour rendering index	R <sub>a</sub>	60	60	60
Light colour	-	Warm White		
Colour temperature	K	3400	3400	3400
Diameter	mm	55	70	75
Length max. l	mm	130	156	170
Base	-	E27	E27	E27
Burning position	-	universal		
Max. perm. outer bulb temp.	°C	310	310	310
Max. perm. base edge temp.	°C	210	210	210
Comp. cap. at 50 Hz cos.φ ≥ 0,9	μF	7	8	10
Average lamp life	h	25000	25000	25000
Standard pack	Units	40	40	40
Fig. no.	-	1	1	1

Product reference	HQL® DE LUXE elliptical, coated					
	50 W HQL 50 DE LUXE	80 W HQL 80 DE LUXE	125 W HQL 125 DE LUXE	250 W HQL 250 DE LUXE	400 W HQL 400 DE LUXE	
EAN 4050300	-	015132	015149	015156	015163	015170
Lamp wattage	W	50	80	125	250	400
System wattage (with CCG)	W	59	89	137	266	425
Lamp voltage	V	95	115	125	130	135
Lamp current	A	0,60	0,80	1,15	2,15	3,25
Mains current comp. at cos.φ ≥ 0,9	A	0,27	0,41	0,6	1,2	1,9
Luminous flux	lm	2000	4000	6800	14000	24000
Lamp luminous efficacy	lm/W	40	50	54	56	60
Average luminance	cd/cm <sup>2</sup>	4,0	5,0	7,0	10,0	10,5
Colour rendering group	-	3	3	3	3	3
Colour rendering index	R <sub>a</sub>	54	54	54	52	50
Light colour	-	Warm White				
Colour temperature	K	3400	3400	3400	3400	3400
Diameter	mm	55	70	75	90	120
Length max. l	mm	130	156	170	226	290
Base	-	E27	E27	E27	E40	E40
Burning position	-	universal				
Max. perm. outer bulb temp.	°C	310	310	310	350	380
Max. perm. base edge temp.	°C	210	210	210	250	250
Comp. cap. at 50 Hz cos.φ ≥ 0,9	μF	7	8	10	18	25
Average lamp life	h	20000	20000	20000	20000	20000
Standard pack	Units	40	40	40	12	12
Fig. no.	-	1	1	1	2	2

Product reference	HQL®-B SUPER DE LUXE spherical, coated		HQL®-R DE LUXE reflector, coated	
	50W HQL B 50 SUPER DE LUXE	80W HQL B 80 SUPER DE LUXE		
EAN 4050300	-	015194	015200	003290
Lamp wattage	W	50	80	80
System wattage (with CCG)	W	59	89	89
Lamp voltage	V	95	115	115
Lamp current	A	0,60	0,80	0,80
Mains current comp. at cos.φ ≥ 0,9	A	0,27	0,41	0,27
Luminous flux	lm	1600	3000	3000
Lamp luminous efficacy	lm/W	32	38	38
Average luminance	cd/cm <sup>2</sup>	3,0	4,0	6,0
Colour rendering group	-	2B	2B	3
Colour rendering index	R <sub>a</sub>	60	60	56
Light colour	-	Warm White		Warm White
Colour temperature	K	3200	3200	3400
Diameter	mm	126	126	125
Length max. l	mm	190	190	168
Base	-	E27	E27	E27
Burning position	-	universal		universal
Max. perm. outer bulb temp.	°C	310	310	310
Max. perm. base edge temp.	°C	210	210	210
Comp. cap. at 50 Hz cos.φ ≥ 0,9	μF	7	8	8
Average lamp life	h	20000	20000	20000
Standard pack	Units	6	6	6
Fig. no.	-	3	3	4

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