

Entertainment Solutions



Entertainment lighting solutions

Range of lamp technologies incandescent, halogen, discharge and fluorescent

Multiple applications including Film, TV, Studio, Theatre, Disco, Event and many more

Extensive range from low watt up to 24,000W with a variety of bases

Variety of bases large range of bases to fit most known fixtures

Performance consistent lamp to lamp performance

Output up to 2.1 million lumens





Film and Broadcast



Event and Tour



Club and Disco



Theatre



Other applications



Main application areas

GE Lighting is a leading supplier to the entertainment industry offering a range of lamp technologies for use in applications including stage, studio, film and event lighting. GE entertainment lamps are sold under the SHOWBIZ® brand.

Film and Broadcast

Lamps for use in film and studio production.

Event and Tour

Lamps primarily used in events and concert tours, although some of this range may also be used in Club/Disco applications.

Club and Disco

Lamps primarily used in clubs and discos, although some of this range may also be used in Event/Tour applications. Also, other sealed beam applications are included in this section.

Theatre

Lamps that are primarily used in theatrical applications or indoor events.

Other applications

The technology used in GE's entertainment range also has applications in the field of architectural lighting where long life is required. There is also a range for specialist projection and photography.



SHOWBIZ® *Film and Broadcast*

GE has a wide range of halogen and metal halide lamps for use in film and broadcast lighting for both studio and location lighting. GE also offers a low energy compact fluorescent lighting solution for soft lighting in studios.

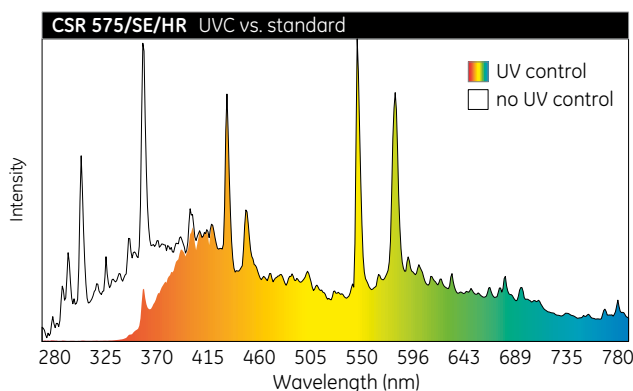
CSR UltraViolet-Control range

With rising awareness of UV emissions, GE leads the way with its SHOWBIZ® UV-Control lamps. Using a specially designed absorbing quartz these products offer greatly reduced UV emissions over standard products with no compromise to performance - there is simply much less UV: 98% in the UVC band. GE offers the largest range of UV-Control lamps from 200W to 12,000W. The significant reduction in UV can help extend the life of components of fixtures and protect users from any light spill from the back of the fixture.

The International Commission on Illumination (CIE) defines the UV bands as UV-A (315-400nm); UV-B (280-315nm) and UV-C (100-280nm). GE uses a UV blocking titanium-cerium doped clear fused quartz for the lamp's outer jacket. This absorbs much of the UV-B and UV-C radiation while maintaining transmittance efficiency in the visible spectrum range.

UV control

The spectra shown here are for the CSR575/SE/HR, for both standard and UV-Control lamps and shows a 98% reduction in UV-C, 99% in UV-B and a 64% reduction in UV-A across the product line.



Performance & colour point

CSR UV-Control lamps perform just the same as the industry standard counterparts. UV-C lamps have the same high lumen output and colour rendering as standard products.

UV-C lamp identification

GE UV-Control lamps are easy to identify. The titanium-cerium doped outer jacket quartz fluoresces blue under black light. If no black light is available the blue tint in the quartz is visible under normal lighting conditions. The lamps also have a distinctive blue base.



Single ended hot restrike

Compact, single ended metal halide hot restrike lamps for a variety of applications requiring high luminance, reliability and excellent colour characteristics.

- Excellent colour rendering, $R_a > 90$, and high CCT 6000K with superior colour stability
- Universal burn position with hot restrike capability
- High efficiency with excellent lumen maintenance
- Available with UV blocking



Double ended hot restrike

Double ended compact source rare earth metal halide hot restrike lamps from GE can be used in a variety of applications requiring high luminance, reliability and excellent colour characteristics.

- Industry Standard outline with hot restrike capability
- Excellent colour rendering $R_a > 90$ and high CCT (6000–9000K) with superior colour stability
- Dimmable with stable colour
- High efficiency with excellent lumen maintenance



High watt halogen

Extensive range of single ended halogen lamps for use in film fixtures for location and studio use.

- Lower wattage lamps are available in the theatre section
- From 1250 to 24,000W
- Compatible with all known film fixtures
- Chromised seal protection

Cinema fluorescent

GE offers 55W high lumen lamps called Cinema Plus and Studio Biax for TV studio and video applications. Both lamps are colour tuned to match tungsten and daylight lamp sources.

Cinema Plus is recommended for film use. This "film friendly" lamp matches the spectral sensitivity of tungsten or daylight film stock. This full-spectrum design has a CRI up to 95 and is a gel-free light source.

Studio Biax is a perfect solution for TV and Video applications where high light output, long life and great lumen maintenance are the key needs. The Studio Biax is a triphosphor lamp colour tuned to 3200°K and 5500°K to match tungsten and daylight sources in a studio setting.



SHOWBIZ® *Event and Tour*



GE lighting has a wide range of lamps for events and tours where high light output and high colour temperature is required to give the best light effect for the performing artists and audiences.

A variety of lamps can be used for events. In this section we focus on the metal halide CSR / CSD range of lamps, however many of the sealed beam lamps in the next section are still extensively used at events and tours.

This section features the new CSR TAL lamps which give users a lamp that can be changed quickly on location - just Turn And Lock.





Single ended cold start

Compact, single ended metal halide cold start lamps for a variety of applications requiring high luminance, reliability and excellent colour characteristics.

- Excellent colour rendering Ra from 70 – 90+
- High CCT 7200 – 9000K with superior colour stability
- Universal burn position
- Dimmable with stable colour
- High efficiency with excellent lumen maintenance



CSR TAL

These single-ended metal halide lamps are especially useful for moving-light applications that call for high colour temperatures and brighter light sources. The 'Turn And Lock' technology provides easy installation.

A very short arc gap allows for higher beam intensity. This enables good system performance, colour stability and superior lumen maintenance over life.

- Easy release base (Turn And Lock) enabling quick lamp change at events
- High lumen output



Double ended hot restrike

Double ended compact source rare earth metal halide hot restrike lamps from GE can be used in a variety of applications requiring high luminance, reliability and excellent colour characteristics.

- Industry Standard outline with hot restrike capability
- Excellent colour rendering Ra>90 and high CCT (6000 K – 9000K) with superior colour stability
- Dimmable with stable colour
- High efficiency with excellent lumen maintenance

CSR single ended short arc

Metal halide short arc lamps. The special chromised seal protection allows an increased maximum operating temperature at the base of 500° C for added reliability and consistent performance.

- RA 75+
- 5600 – 7200K
- Dimmable with stable colour
- High efficiency with excellent lumen maintenance



Entertainment Lamps

Club and Disco



This section highlights the extensive range of GE PAR lamps available, from PAR36 to PAR64.

Some lamps in this section may not normally be used in night club or disco applications but they have been included to provide a full picture of all the possibilities that are available.

Europe and USA manufacturing

GE PAR lamps provide tried and tested quality that can be relied on. The most popular 1000W types, CP60, 61, 62 are manufactured in Europe, while most of the PAR36 and PAR56 and many of the other PAR64 types are US manufactured.

Other applications

The other applications include swimming pool lamps where the 300W PAR56 12V lamp is commonly used, locomotive lamps where the 200W PAR56 30V lamp is used, and the extensive range of ANSI PAR lamps that are used in aircraft applications.





PAR36



PAR46



PAR56



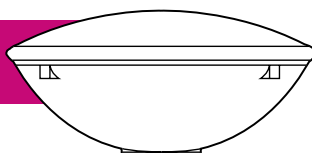
PAR64

PAR36/46/56/64

PAR lamps provide a robust and flexible design solution for a wide range of applications.

- Choice of PAR36, PAR46, PAR56 or PAR64
- 3000 K or 4200 K colour temperature
- Choice of beam widths
- Excellent colour rendering
- High efficiency combined with low operating costs
- Robust and reliable
- UV control
- Easy retrofit
- Colour consistent throughout life
- Colour blends with halogen and fluorescent

PAR lamp caps



Cap



Theatre



In this section we highlight GE's extensive range of halogen lamps in both single and double ended format that are primarily used in theatre applications. With the increasing number of spectacular musicals there are a number of moving lights used in theatres, so you may also find lamps in our event section.

HPL

GE offers an extensive range of Quartzline® HPL lamps, especially designed for applications in entertainment and architectural lighting where ETC Source Four™ * fixtures are used.

**Source Four™ is a registered trademark of Electronic Theatre Controls*





Single ended halogen HPL

Developed using GE Six Sigma process, these lamps encompass modern halogen technology and high production standards.

- HPL optical system for superior field smoothness and cosine distribution
- Integral heat sink base reduces seal temperature, increases durability and maximises life
- Shock resistant filament array and patented gas chemistry minimises arc-out risk during alignment and focusing



Single ended halogen

Quartzline® lamps designed for optimum performance in today's precision range of stage, studio and architectural luminaires.

- Full range up to 3000W
- Range of bases to meet the needs of OEMs
- Chromised seal protection up to 500°C



Double ended halogen

Precision range of Quartzline® lamps widely used in theatre and many other applications.

- A range from 350W to 2,000W
- 3200K



Other applications



Architainment, Projection and Photography

The technology used in GE's entertainment range also has applications in the field of architectural lighting where long life is required. There is also a range for specialist projection and photography.



CMH PAR

The GE CMH PAR range of lamps combines constant colour ceramic metal halide with the benefits of a sealed beam. Based on the 150W single-ended CMH format, the addition of a PAR reflector provides a controlled, accurate light source for entertainment, architectural and retail lighting where making a big impression is what counts most.

The CMH PAR is also a good choice for stage use where long life is desirable, and is a great way to add drama to exhibition and museum displays.



CMH 400/GX 9.5

A long life, compact Ceramic Metal Halide lamp designed for entertainment/architectural applications. The CMH 400/GX 9.5 is a single ended lamp that provides 40,000 lumens, 90+ Ra in two colour temperatures, 3200K and 4100K. Rated life is over 6000 hours with excellent lumen maintenance.



Photo and projection

Precisely manufactured, tailored filaments which optimise source brightness, giving high performance in many applications.

High light-generating efficacy to help reduce power consumption and heat generation.

Prefocus-type caps or precision rim mounting to position the filament accurately in relation to the optics.

Product identification

Additional parameters:

LIF Code: common lamp ID within Europe
ANSI Code: common lamp ID within North America

Watts: Energy Used – To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000	Volts	Cap / base Cap: The type of cap fitted. See end pages for cap drawings	Description Product description: The lamp's identification code	Product code	Lumen Lumens: Initial amount of light output	CCT [K]	LIF Code	ANSI Code	Life [h]	Length [mm] Length: Lamp length in mm	Diameter [mm]	Operating position Operating position: U - Universal HOR - Horizontal VBD - Vertical Base Down BDTH - Base Down to Horizontal BDTHCH - Base Down to Horizontal with filament coil axis horizontal BD45 - within 45° of vertical base down	EEC	Energy Consumption [kWh] Energy Consumption: kWh/1000h	Outer qty

Single Ended Halogen (Lower wattages are shown in the Theatre section)

1250+650	230-240	GX38q	CP105	1250/650W 230-240V	88880	27,000+13,000	3050	CP105	-	250	220	-	BD45	D	1919.00	1
1250+1250	230-240	GX38q	CP30	230- 240V	88877	27,000+27,000	3200	CP30	-	300	220	-	BD45	D	2518.00	1

Volts: Lamp data is based on operating voltage	Identifies the lamp's wattage	Hot Restrike	Product code: It is important to use this code when ordering to ensure that you receive the exact product you require	CCT [K]: Colour Temperature - Kelvins A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler" the light appears	Life: Rated average life	Diameter: Bulb diameter in mm	EEC: Energy Efficiency Class	Pack quantity: Number of product units packed in a case

Entertainment Lamps

Film and Broadcast



Single-ended hot restrike

Watts: 125-18,000W
Lumens: 9800-1,650,000
CCT: 6000
Life: Up to 750h

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Double-ended hot restrike

Watts: 200-4,000W
Lumens: 15,000-2,100,000
CCT: 5600-6000
Life: Up to 750h

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Cinema Studio Biax™

Watts: 55W
Lumens: 2400-4100
CCT: 3200 & 5600
Life: Up to 8000h

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Single-ended halogen

Watts: 1250-24,000W
Volts: 230-240
Lumens: 13,000-800,000
CCT: 3050-3400
Life: Up to 500h

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Event and Tour



Single ended cold start

Watts: Up to 1200W
Lumens: Up to 110,000
CCT: 6500-9000
Life: 800-3000h

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TAL

Watts: Up to 1500W
Lumens: Up to 129000
CCT: 5600-9800
Life: Up to 2000h

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Double-ended hot restrike

Watts: 575 - 1500W
Lumens: Up to 130,000
CCT: 5800 - 7500
Life: 500 - 750h

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Short arc

Watts: 700 -1200W
Lumens: Up to 100,000
CCT: 5800-7500
Life: 500-750h

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Halogen TAL

Watts: 750W
Volts: 100
Lumens: 21,500
CCT: 5600-9800
Life: 200h

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Club and Disco



PAR

Range: PAR36, 46, 56, 64
Watts: Up to 1200W
Candelas: Up to 765,000
Life: Up to 4000h

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Selector

Theatre



Single-ended halogen -HPL

Watts: 375-750W
Volts: 115-240
Cap: G9.5/Heat Sink
Lumens: Up to 19,750

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Single-ended halogen

Watts: 500-3000W
Volts: 115-240
Lumens: Up to 82,000
CCT: 2900-3200
Life: Up to 2000h

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Double-ended quartzline

Watts: 350-2000W
Volts: 120-240
Lumens: Up to 57,000
CCT: 2950-3275
Life: Up to 400h

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Other applications



ConstantColor™ CMH single-ended

Watts: 400W
Lumens: 40,000
CCT: 3200/4100
Life: 5000h

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ConstantColor™ CMH PAR64

Watts: 150W
CCT: 3000/4200
Life: 8000h

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CSS/CSI/CID

Watts: 140-1000W
Lumens: 10,000 - 1,350,000
CCT: 3800-5000
Life: 500-3500h

Page VIII.25



Special purpose lamps.
Not suitable for household illumination.

Entertainment Lamps

Film and Broadcast

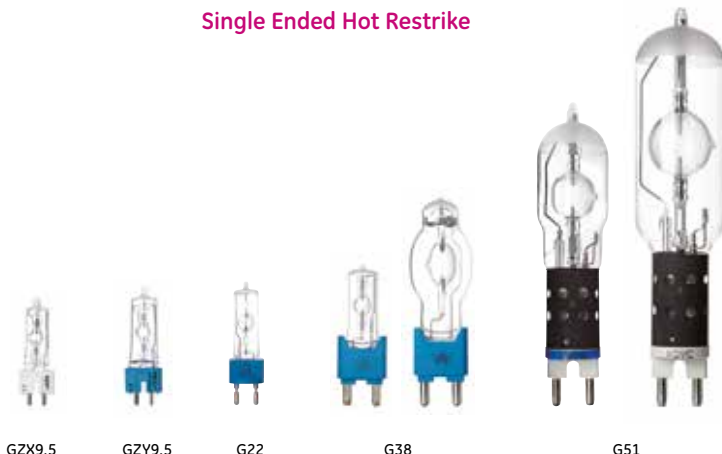
Watts	Volts	Cap / base	Description	Product code	Lumen	CCT [K]	Life [h]	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty	Osram	Philips
Discharge - Single Ended Hot Restrike													Cross Reference	
125	80	GZX9.5	CSR125/SE/HR	48461	9800	6000	200	75	U	A	137.50	10	HMI125W	MSR125/HR
200	70	GZY9.5	CSR200/SE/HR/UV-C	48462	17,500	6000	200	80	U	A	220.00	10	HMI200W/SE	MSR200/HR
400	70	GZZ9.5	CSR 400SE/HR/UV-C	21853	32,000	6000	750	110	U	A	440.00	10	HMI400W/SE	MSR400/HR
575	95	G22	CSR 575/SE/HR/UV-C	40460	49,000	6000	750	145	U	A	632.50	10	HMI575W/SE	MSR575/HR
800	95	G22	CSR800/SE/HR/UV-C	22495	64,000	6000	750	145	U	A	880.00	6	HMI800W/SEL	-
1200	100	G38	CSR 1200 SE/HR/UV- C	27764	110,000	6000	750	200	U	A+	1320.00	6	HMI1200W/SE	MSR1200/HR
1600	150	G38	CSR 1600/SE/HR/UV-C	65754	150,000	6000	500	175	U	A+	1760.00	6	-	-
1800	150	G38	CSR 1800/SE/HR	77390	165,000	6000	750	200	U	A+	1980.00	6	HMI1800W/SE/XS	-
2500	115	G38	CSR 2500/SE/HR/UV-C	40482	220,000	6000	500	240	U	A	2750.00	6	HMI2500W/SE	MSR2500/HR
4000	200	G38	CSR 4000SE/HR/UV- C	27765	380,000	6000	500	260	U	A+	4400.00	6	HMI4000W/SE	MSR4000/HR
6000	130	G38	CSR 6000/SE/HR/UV-C	40492	540,000	6000	300	360	U	A+	6600.00	6	HMI6000W/SE	MSR6000/HR
9000	160	G38	CSR9000/SE/HR/UV-C*	65852	875,000	6000	400	360	U	TBD	TBD	6	HMI 9000W/ SE	-
12,000	225	G38	CSR12000/SE/HR/ UV-C	97272	1,150,000	6000	300	450	U	A+	13200.00	4	HMI12000W/SE	MSR12000/HR
18,000	225	G51	CSR18000/SE/HR	22496	1,650,000	6000	250	470	U	A+	19800.00	1	HMI18000W/SE	MSR18000/HR

Discharge - Double Ended Hot Restrike

200	80	X515	CSR200/DE	48450	15000	5600	300	75	HOR±15°	A	220.00	10	HMI200W	-
1200	100	SfC 10-5-6 SI/M6	CSR1200/DE	48453	110000	6000	750	220	HOR±15°	A+	1320.00	10	HMI1200W/GS	MSI1200
2500	115	Sta21-12	CSR2500/DE	48454	240000	6000	500	355	HOR±15°	A+	2750.00	6	HMI2500W/GS	MSI2500
4000	200	Sta21-12	CSR4000/DE	48455	410000	6000	500	405	HOR±15°	A+	4400.00	6	HMI4000W/GS	MSI4000
6000	125	25X51 Cyl 165mm	CSR6000/DE	48456	570000	6000	300	450	HOR±15°	A+	6600.00	10	HMI6000W	MSI6000
12,000	160	30x70 Cyl 165mm	CSR12000/DE	48457	1100000	6000	300	470	HOR±15°	A+	13200.00	10	HMI12000W/GS	MSI12000
18,000	225	30x70 Cyl 165mm	CSR18000/DE	48459	1650000	6000	500	500	HOR±15°	A+	19800.00	4	HMI18000W	-
24,000	270	30x70 Cyl 165mm	CSR24000/DE	78710	2100000	6000	500	500	HOR±15°	A	26400.00	1	HMI24000W/DXS	-

* Available later in 2013

Single Ended Hot Restrike



Double Ended Hot Restrike



Film and Broadcast

Watts	Volts	Cap / base	Description	Product code	Lumen	CCT (K)	LIF Code	ANSI Code	Life (h)	Length (mm)	Diameter (mm)	Operating position	EEC	Energy Consumption (kWh)	Outer qty
Single Ended Halogen (Lower wattages are shown in the Theatre section)															
1250+650	230-240	GX38q	CP105 1250/650W 230-240V	88880	27,000+13,000	3050	CP105	-	250	220	-	BD45	D	1919.00	1
1250+1250	230-240	GX38q	CP30 230- 240V	88877	27,000+27,000	3200	CP30	-	300	220	-	BD45	D	2518.00	1
1250+2500	230-240	GX38q	CP58 230-240V	88878	27,000+59,000	3200	CP58	-	300	220	-	BD45	C	3795.00	1
2500+2500	230-240	GX38q	CP32 230-240V	88879	59,000+59,000	3200	CP32	-	300	220	-	BD45	C	5059.00	1
5000	230	G38	CP29 230V	88875	13,5000	3200	CP29	-	375	279	-	BDTH	C	5040.00	12
5000	240	G38	CP29 240V	88876	13,000	3200	CP29	-	375	279	-	BDTH	C	5040.00	12
5000	240	G38	HX5000/240V	71379	133,000	3200	-	-	200	270	65	U	C	4652.57	6
10,000	220-230	G38	CP83 220-230V	12036	280,000	3200	CP83	-	500	405	-	BDTH	C	9965.00	1
10,000	240	G38	CP83 240V	12037	280,000	3200	CP83	-	500	405	-	BDTH	C	9777.33	1
12,000	230	GX38	Q12MT26/CL 230V	48771	400,000	3400	-	-	130	410	-	BD45	B	12600.37	1
12,000	240	GX38	Q12MT26/CL 240V	48779	400,000	3400	-	-	130	410	-	BD45	C	11659.73	1
12,000	240	G51	HX12000/240V	65316	324,000	3200	-	-	300	410	85	U	C	12201.20	6
20,000	220	GX38	Q20MT32/CL 230V	48773	580,000	3200	-	BCM	400	560	-	BD45	C	18762.33	1
20,000	240	GX38	Q20MT32/CL 240V	48774	580,000	3200	-	BCM	400	560	-	BD45	C	19727.93	1
24,000	240	GX38	Q24MT32/CL 240V	48777	800,000	3400	-	-	150	560	-	BD45	B	23778.40	1

Cinema Studio Biax™

55	-	2G11-4 PIN	F55BX/STUDIOBIAX32	41869	4100	3200	-	-	8000	55	-	U	A	60.50	10
55	-	2G11-4 PIN	F55BX/STUDIOBIAX56	41873	4100	5600	-	-	8000	55	-	U	A	60.50	10
55	-	2G11-4 PIN	F55BX/CINPLUS/32	41903	2400	3200	-	-	2000	55	-	U	B	60.50	10
55	-	2G11-4 PIN	F55BX/CINPLUS/55	41911	2400	5600	-	-	2000	55	-	U	B	60.50	10

Single Ended Halogen



G38



G51

Cinema Studio Biax™



2G11-4 PIN

Entertainment Lamps

Event and Tour

Watts	Volts	Cap / base	Description	Product code	Lumens	CCT (K)	Life (h)	Length (mm)	Operating position	EEC	Energy Consumption [kWh]	Outer qty	Osram	Philips
Discharge - Single Ended Cold Start													Cross reference	
250	95	GY9.5	CSD 250/2 SE	10744	18,000	8500	3000	108	U	A	275.00	10	HSD250/80	MSD250/2
575	97	GX9.5	CSR575/2/T/SE	49492	42,000	7600	1000	125	U	A	632.50	10	-	-
575	97	GX9.5	CSR575/2/SE	15378	46,000	7200	1000	125	U	A	632.50	10	HSR575/2	MSR575/2
700	70	G22	CSR700/2/SE	49491	55,000	6500	1000	155	U	A	770.00	10	HSR700/2	MSR700/2
1200	100	G22	CSR1200/2/SE	49490	110,000	7000	800	175	U	A+	1320.00	6	HSR1200/2	MSR1200/2
Discharge - CSR Turn and Lock (TAL)														
300	100	PGJX28	CSR300/2/TAL	76160	23,000	7700	750	126	U	A	330.00	4	-	MSR 300/2 MiniFastFit
700	70	PGJX50	CSR700/TAL	76161	50,000	7400	750	128	U	A	770.00	4	HTI 700W/75/P50	MSR 700 FastFit
700	70	PGJX28	CSR700/TAL	78718	50,000	7400	750	122	U	A	770.00	4	HTI 700W/75/P28	MSR 700/2 MiniFastFit
1500	95	PGJX50	CSR1500/TAL	74873	129,000	5600	750	128	U	A	1650.00	4	HTI 1500W/60/P50	MSR 1500 FastFit
Discharge - Double Ended Hot Restrike														
575	95	Sfc 10-4 SI/M4	CSR575/S/DE/70	70979	40,000	7000	750	138	U	A	632.50	10	-	-
575	100	Sfc 10-4 SI/M4	CSR575/SS/DE/75	45231	44,000	7500	500	92	HOR±15°	A	632.50	10	-	-
700	70	Sfc 10-4 SI/M4	CSR700/S/DE/60	22493	59,000	6000	750	138	U	A	770.00	10	HTI700W/D4/60	-
700	70	Sfc 10-4 SI/M4	CSR700/S/DE/72	41357	51,000	7200	750	138	U	A	770.00	10	HTI700W/D4/75	MSR700/SA/2/DE
1200	100	Sfc 10-4 SI/M4	CSR1200/S/DE/60	22494	110,000	6000	750	138	U	A+	1320.00	10	HTI1200W/D7/60	MSR1200/SA/DE
1200	100	Sfc 10-4 SI/M4	CSR1200/S/DE/75	41361	103,000	7500	750	138	U	A	1320.00	10	HTI1200W/D7/75	MSR1200/SA/2/DE
1500	115	Sfc 10-4 SI/M4	CSR1500/S/DE/60	96800	130,000	5800	500	138	HOR±15°	A	1650.00	10	HTI1500 D7/60	-
Discharge - Short Arc														
700	70	GY9.5	CSR 700 SA	15380	58,000	5600	500	85	U	A	770.00	10	HTI705W/SE	MSR700/SA
1200	100	GY22	CSR 1200/SA	21849	100,000	5800	750	135	U	A	1320.00	6	HTI1200W/SE	MSR1200/SA
Halogen – CSR Turn and Lock (TAL)														
750	100	PGJX28	Q750 100V TAL*	64966	21,500	3200	200	104	BDTH	C	793.69	24	-	-

* TAL lamp can be used in specified moving light fixtures, however the 3200K colour temperature is for theatrical use.

Single Ended
Cold Start



GX9.5

G22

TAL



PGJX28

PGJX28

PGJX50

Short
Arc



GX9.5

Double Ended Hot Restrike



Sfc 10-4 SI/M4



Club and Disco

Watts	Volts	Description	Product code	CCT (K)	LIF Code	ANSI Code	Cap / base	Life (h)	Candelas	Beam type	Beam 10%	Beam 50%	Length (mm)	Diameter (mm)	Operating position	EEC	Energy Consumption [kWh]	Outer qty
PAR 36																		
25	5.5	25PAR36 5.5V	14553	3000	-	-	Screw Term.	1000	30,000	VNSP	-	5 x 5	69.8	114.3	U	E	26.43	12
25	12	25PAR36/WFL 12V	14555	-	-	-	Screw Term.	2000	500	WFL	49 x 41	37 x 26	69.8	114.3	U	E	26.01	12
30	12.8	4405 12.8V	24425	-	-	-	Screw Term.	100	50,000	VNSP	6 x 5	-	69.8	114.3	U	Exempt	Exempt	12
30	6.2	4511 6.2V	24663	-	-	-	Screw Term.	300	2300	-	-	-	69.8	114.3	U	Exempt	Exempt	12
30	6.4	H4515 6.4V	15133	-	-	-	Screw Term.	100	67,000	VNSP	5.5 x 4	-	69.8	114.3	U	E	31.53	12
30	6.4	4515 6.4V	24673	-	-	-	Screw Term.	100	55,000	VNSP	5 x 5	-	69.8	114.3	U	E	31.58	12
50	12.8	H7604 12.8V	43576	-	-	-	Screw Term.	100	100,000	NSP	7 x 5	-	69.8	114.3	U	Exempt	Exempt	12
50	12	50PAR36/VNSP 12V	12892	-	-	-	Screw Term.	2000	25,000	VNSP	-	6 x 6	69.8	114.3	U	E	52.11	12
50	12	50PAR36/NSP 12V	16540	-	-	-	Screw Term.	2000	9200	NSP	-	10 x 10	69.8	114.3	U	E	51.98	12
50	12	50PAR36/WFL 12V	16541	-	-	-	Screw Term.	2000	1300	WFL	48 x 41	36 x 28	69.8	114.3	U	E	51.98	12
50	12	50PAR36/WFL/H 12V	19880	3050	-	-	Screw Term.	4000	1300	WFL	-	30 x 30	69.8	114.3	U	E	51.33	12
50	12	50PAR36/VWFL 12V	16542	-	-	-	Screw Term.	2000	600	VWFL	-	55 x 55	69.8	114.3	U	E	51.98	12
50	28	4502 28.0V	24627	-	-	-	Screw Term.	400	10,000	WFL	40 x 7	-	69.8	114.3	U	Exempt	Exempt	12
50	28	4505 28.0V	24640	-	-	-	Screw Term.	400	45,000	NSP	11 x 5	-	69.8	114.3	U	Exempt	Exempt	12
50	28	4589 28V 50W	24873	-	-	-	Screw Terminals	400	5000	-	-	-	69.8	114.3	U	Exempt	Exempt	12
100	13	4509 13.0V	24650	-	-	-	Screw Term.	25	110,000	NSP	12 x 6	-	69.8	114.3	U	Exempt	Exempt	12
100	13	4509X 13.0V	41503	-	-	-	Screw Term.	25	110,000	NSP	12 x 6	-	69.8	114.3	U	Exempt	Exempt	12
100	28	4591 28.0V	24882	-	-	-	Screw Terminals	25	90,000	-	-	-	69.8	114.3	U	Exempt	Exempt	12
50	28	4593 28.0V	24887	-	-	-	Screw Term.	400	1500	VWFL	80 x 30	-	69.8	114.3	U	Exempt	Exempt	12
100	28	4594 28.0V	24891	-	-	-	Screw Term.	300	70,000	NSP	13 x 7	-	69.8	114.3	U	Exempt	Exempt	12
150	28	4626 28.0V	24964	-	-	-	Screw Term.	300	25,000	WFL	40 x 9	-	69.8	114.3	U	Exempt	Exempt	12
100	28	4627 28.0V	24966	-	-	-	Screw Term.	300	3000	VWFL	80 x 30	-	69.8	114.3	U	Exempt	Exempt	12
250	28	4587 28.0V	24867	-	-	-	Screw Term.	25	4000	WFL	40 x 13	-	69.8	114.3	U	Exempt	Exempt	12
250	28	4596 28.0V	24898	3000	-	-	Screw Term.	25	150,000	NSP	11 x 12	-	69.8	114.3	U	Exempt	Exempt	12
650	120	DWE Q650PAR36/1 120V	41667	3200	-	DWE	Screw Term.	100	24,000	MFL	-	40 X 30	69.8	114.3	HOR±15°	D	692.40	12
650	120	FBO-Q650/PAR36/5 120V	41671	3400	-	FBO	Screw Term.	30	75,000	SP	-	25 X 15	69.8	114.3	HOR±15°	D	692.40	12
650	120	FCX-Q650PAR36/7 120V	41673	3200	-	FCX	Ferrule	100	24,000	MFL	-	40 X 30	69.8	114.3	HOR±15°	D	692.40	12
750	13	Q4632 13.0V	39112	-	-	-	Screw Terminals	500	75,000	-	-	-	69.8	114.3	U	Exempt	Exempt	12

PAR36



Entertainment Lamps

Club and Disco

Watts	Volts	Description	Product code	CCT [K]	LIF Code	ANSI Code	Cap / base	Life [h]	Candelas	Beam type	Beam 10%	Beam 50%	Length [mm]	Diameter [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
PAR 46																		
50	12.8	H7635 12.8V	43591	-	-	-	Screw Terminals	100	160,000	VNSP	-	6.5 x 4	95.2	146	U	Exempt	Exempt	12
60	28	4578 28.0V	25005	-	-	-	3 Contact Lugs	800	1600	-	-	-	95.2	146	U	Exempt	Exempt	12
80	28	4579 28V 80W	25009	-	-	-	3 Contact Lugs	400	24,000	-	-	-	95.2	146	U	Exempt	Exempt	12
100	13	4537-2 13.0V	40822	-	-	-	Screw Terminals	25	200,000	SP	-	11 x 6	95.2	146	U	Exempt	Exempt	12
250	28	4551 28.0V	24795	-	-	-	Screw Terminals	25	75,000	-	-	-	95.2	146	U	Exempt	Exempt	12
250	28	4553 28.0V	24799	-	-	-	Screw Terminals	25	300,000	SP	-	11 x 12	95.2	146	U	Exempt	Exempt	12
450	16.5	4635	33284	-	-	-	Screw Terminals	25	325,000	-	-	-	95.2	146	U	Exempt	Exempt	12
450	28	4580 28.0V	24859	-	-	-	Screw Terminals	10	400,000	SP	-	13 x 14	95.2	146	U	Exempt	Exempt	12
450	28	Q4554 28.0V	37706	-	-	-	Screw Terminals	100	65,000	WFL	-	50 x 11	95.2	146	U	Exempt	Exempt	12
450	28	Q4681 28.0V	36271	-	-	-	Screw Terminals	50	310,000	SP	-	15 x 9	95.2	146	U	Exempt	Exempt	12
PAR 56																		
100	12	4545 100W 12V	24768	-	-	-	Screw Terminals	100	225,000	NSP	-	9 x 5	127	177.8	U	Exempt	Exempt	12
120	12	120PAR56WFL 12V	19025	-	-	-	Screw Terminals	2000	5625	WFL	35 x 18	50 x 25	127	177.8	U	D	125.19	12
200	30	200PAR 30V	20122	-	-	-	Screw Terminals	350	270,000	SP	-	9 x 9	127	177.8	U	Exempt	Exempt	12
240	12	240PAR56/VNSP 12V	20575	-	-	-	Screw Terminals	2000	140,000	VNSP	9 x 6	7 x 10	127	177.8	U	E	260.08	12
240	12	240PAR56/WFL 12V	20577	-	-	-	Screw Terminals	2000	13,000	WFL	35 x 18	50 x 27	127	177.8	U	E	260.08	12
300	12	300PAR56/WFL 12V	23427	-	-	-	Screw Terminals	1000	-	WFL	-	-	127	177.8	U	C	309.51	12
300	120	300PAR56/NSP 120V	20803	2750	-	-	Mog End Pr GX16d	2000	68,000	NSP	10 x 8	20 x 14	127	177.8	U	E	313.36	12
300	120	300PAR56/MFL 120V	20836	2750	-	-	Mog End Pr GX16d	2000	24,000	MFL	23 x 11	34 x 19	127	177.8	U	E	318.70	12
300	120	300PAR56/WFL 120V	20849	2750	-	-	Mog End Pr GX16d	2000	11,000	WFL	37 x 18	57 x 27	127	177.8	U	E	318.70	12
300	230	300PAR56/MFL 230V	20852	-	-	-	ExMogEndPr GX16d	2000	30,000	MFL	-	-	127	177.8	U	E	293.19	12
300	230	300PAR56/NSP 230V	20853	-	-	-	ExMogEndPr GX16d	2000	40,000	NSP	-	-	127	177.8	U	E	293.19	12
300	230	300PAR56/WFL 230V	20854	-	-	-	ExMogEndPr GX16d	2000	10,000	WFL	-	-	127	177.8	U	E	293.19	12
300	240	300PAR56/NSP 240V	18676	-	-	-	ExMogEndPr GX16d	2000	40,000	NSP	-	-	127	177.8	U	E	285.58	12
300	240	300PAR56/MFL 240V	18677	-	-	-	ExMogEndPr GX16d	2000	30,000	MFL	-	-	127	177.8	U	E	285.58	12
300	240	300PAR56/WFL 240V	18678	-	-	-	ExMogEndPr GX16d	2000	10,000	WFL	-	-	127	177.8	U	E	285.58	12
500	120	Q500PAR56MFL 120V	43495	2950	-	-	Mog End Pr GX16d	4000	43,000	MFL	26 x 10	42 x 20	127	177.8	U	D	550.11	6
500	120	Q500PAR56WFL 120V	43496	2950	-	-	Mog End Pr GX16d	4000	19,000	WFL	44 x 20	66 x 34	127	177.8	U	D	550.11	6
500	120	Q500PAR56NSP 120V	43494	2950	-	-	Mog End Pr GX16d	4000	96,000	NSP	13 x 8	32 x 15	127	177.8	U	D	550.11	6

PAR46



PAR56





Club and Disco

Watts	Volts	Description	Product code	CCT (K)	LUF Code	ANSI Code	Cap / base	Life (h)	Candelas	Beam type	Beam 10%	Beam 50%	Length (mm)	Diameter (mm)	Operating position	EEC	Energy Consumption [kWh]	Outer qty
PAR 64																		
250	28	4552 28.0V	40576	-	-	-	Screw Terminals	25	500,000	SP	-	7 X 8	152.4	203.2	U	Exempt	Exempt	12
600	28	4559 28.0V	40578	-	-	-	Screw Terminals	25	600,000	SP	-	11 X 12	152.4	203.2	U	Exempt	Exempt	12
600	28	Q4559 28.0V	40579	-	-	-	Screw Terminals	100	600,000	SP	-	12 X 8	152.4	203.2	U	Exempt	Exempt	12
600	28	Q4559X 28.0V	42552	-	-	-	Screw Terminals	100	765,000	SP	11x7.5	-	152.4	203.2	U	Exempt	Exempt	12
500	230	CP86 - Q500PAR64/VNSP 230V	73581	3200	CP86	-	GX16d	300	240,000	VNSP	16x13	10x7	152.4	203.2	U	D	496.62	6
500	240	CP86 - Q500PAR64/VNSP 240V	99944	3200	CP86	-	GX16d	300	240,000	VNSP	16x13	10x7	152.4	203.2	U	C	507.66	6
500	230	CP87 - Q500PAR64/NSP 230V	99945	3200	CP87	-	GX16d	300	140,000	NSP	19x16	11x9	152.4	203.2	U	D	499.88	6
500	240	CP87 - Q500PAR64/NSP 240V	99946	3200	CP87	-	GX16d	300	140,000	NSP	19x16	11x9	152.4	203.2	U	C	512.64	6
500	230	CP88 - Q500PAR64/MFL 230V	99947	3200	CP88	-	GX16d	300	65,000	MFL	32x19	21x10	152.4	203.2	U	D	498.86	6
500	240	CP88 - Q500PAR64/MFL 240V	99948	3200	CP88	-	GX16d	300	65,000	MFL	32x19	21x10	152.4	203.2	U	C	498.86	6
500	230	500PAR64/MFL 230V	39411	2700	-	-	ExMogEndPr GX16d	2000	-	MFL	21 X 10	32 x 19	152.4	203.2	U	E	504.90	12
500	230	500PAR64/WFL 230V	39414	2700	-	-	ExMogEndPr GX16d	2000	-	WFL	42 X 20	55 x 32	152.4	203.2	U	E	504.90	12
400/1000	28	4557 28/28V	40581	3350	-	-	3 Screw Terminals	25	540,000	-	-	-	152.4	203.2	U	Exempt	Exempt	12
1000	230	SUPER CP60 EXC VNS 230V	88425	3200	CP60	-	GX16d	300	352,000	VNSP	20x17	12x9	152.4	203.2	U	C	1024.70	6
1000	240	SUPER CP60 EXC VNS 240V	88551	3200	CP60	-	GX16d	300	352,000	VNSP	20x17	12x9	152.4	203.2	U	C	1036.20	6
1000	230	SUPER CP61 EXD NS 230V	88535	3200	CP61	-	GX16d	300	297,000	NSP	22x20	14x10	152.4	203.2	U	C	1030.70	6
1000	240	SUPER CP61 EXD NS 240V	88550	3200	CP61	-	GX16d	300	297,000	NSP	22x20	14x10	152.4	203.2	U	C	1039.92	6
1000	230	SUPER CP62 EXE MF 230V	88549	3200	CP62	-	GX16d	300	138,000	MFL	38x20	24x11	152.4	203.2	U	C	1061.92	6
1000	240	SUPER CP62 EXE MF 240V	88536	3200	CP62	-	GX16d	300	138,000	MFL	24x11	38x20	152.4	203.2	U	C	1037.14	6
1000	230	CP95 230V	88511	3200	CP95	-	ExMogEndPr GX16d	300	15,000	VWFL	125 x 95	70 X 70	152.4	203.2	U	C	993.02	6
1000	240	CP95 240V	88510	3200	CP95	-	ExMogEndPr GX16d	300	15,000	VWFL	125 x 95	70 X 70	152.4	203.2	U	C	999.82	6
1000	230	EXG PAR64/1000W/230V/WFL	88480	3200	-	EXG	ExMogEndPr GX16d	300	49,300	WFL	59 x 36	44 X 22	152.4	203.2	U	C	995.78	6
1000	240	EXG PAR64/1000W/240V/WFL	88479	3200	-	EXG	ExMogEndPr GX16d	300	49,300	WFL	59 x 36	44 X 22	152.4	203.2	U	C	1006.14	6
500	120	500PAR64/MFL 120V	39409	2800	-	-	ExMogEndPr GX16d	2000	37,000	MFL	23 X 11	35 x 19	152.4	203.2	U	E	549.97	12
1000	120	FFN 120V	13233	3200	-	FFN	ExMogEndPr GX16d	800	40,000	VNSP	12 X 6	24 x 10	152.4	203.2	U	E	1083.58	6
1000	120	FFP 120V	13229	3200	-	FFP	ExMogEndPr GX16d	800	330,000	NSP	14 X 7	26 x 14	152.4	203.2	U	E	1083.58	6
1000	120	FFR 120V	13228	3200	-	FFR	ExMogEndPr GX16d	800	125,000	MFL	28 X 12	44 x 21	152.4	203.2	U	E	1083.58	6
1000	120	FFS 120V	13227	3200	-	FFS	ExMogEndPr GX16d	800	40,000	WFL	48 X 24	71 x 45	152.4	203.2	U	E	1083.58	6
1000	120	Q1000PAR64NSP 120V	43497	3000	-	-	ExMogEndPr GX16d	4000	200,000	NSP	15 X 8	31 X 14	152.4	203.2	U	D	1053.24	6
1000	120	Q1000PAR64MFL 120V	43498	3000	-	-	ExMogEndPr GX16d	4000	80,000	MFL	28 X 12	45 x 22	152.4	203.2	U	D	1053.24	6
1000	120	Q1000PAR64WFL 120V	43499	3000	-	-	ExMogEndPr GX16d	4000	33,000	WFL	48 X 24	72 x 45	152.4	203.2	U	D	1053.24	6
1200	120	GFC 1200W 120V VNSP	88487	3200	-	GFC	ExMogEndPr GX16d	400	540,000	VNSP	8x10	14x16	152.4	203.2	U	D	1288.85	6

PAR64



Entertainment Lamps



Watts	Volts	Cap / base	Description	Product code	Lumens	CCT (K)	LIF Code	ANSI Code	Life (h)	Length (mm)	Operating position	EEC	Energy Consumption (kWh)	Outer qty
Single Ended Halogen - HPL (19 mm diameter)														
375	115	G9.5/Heat Sink	HPL375-C 115V	88540	10,540	3050	-	-	300	106	U	C	418.52	12
375	115	G9.5/Heat Sink	HPL375-LL-C 115V	88539	8000	3200	-	-	1000	106	U	E	420.07	12
575	230	G9.5/Heat Sink	HPL 575W 230V	88478	14,900	3200	-	-	300	106	U	C	599.98	12
575	240	G9.5/Heat Sink	HPL 575W 240V	88477	14,900	3200	-	-	300	106	U	D	597.77	12
575	120	G9.5/Heat Sink	HPL 575-C 120V	88436	16,520	3250	-	-	300	106	U	C	594.55	12
575	115	G9.5/Heat Sink	HPL 575-C 115V	88438	16,520	3250	-	-	300	106	U	C	617.98	12
575	230	G9.5/Heat Sink	HPL 575W LL 230V	88476	11,780	3050	-	-	1500	106	U	D	594.48	12
575	240	G9.5/Heat Sink	HPL 575W LL 240V	88475	11,780	3050	-	-	1500	106	U	D	591.13	12
575	120	G9.5/Heat Sink	HPL 575-X LL-C 120V	88434	12,360	3050	-	-	2000	106	U	D	621.63	12
575	115	G9.5/Heat Sink	HPL 575-X LL-C 115V	88435	12,360	3050	-	-	2000	106	U	D	622.46	12
750	230	G9.5/Heat Sink	HPL 750W 230V	88474	19,750	3200	-	-	300	106	U	C	776.97	12
750	240	G9.5/Heat Sink	HPL 750W 240V	88473	19,750	3200	-	-	300	106	U	C	773.78	12
750	115	G9.5/Heat Sink	HPL 750-C 115V	88437	22,000	3250	-	-	300	106	U	C	819.39	12
750	115	G9.5/Heat Sink	HPL 750W-XLL-C 115V	88428	16,400	3050	-	-	2000	106	U	D	808.07	12
750	230	G9.5/Heat Sink	HPL 750W LL 230V	88430	15,600	3050	-	-	1500	106	U	D	771.10	12
750	240	G9.5/Heat Sink	HPL 750W LL 240V	88429	15,600	3050	-	-	1500	106	U	D	759.59	12

Single Ended Halogen

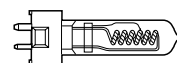
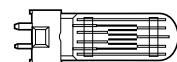
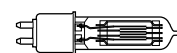
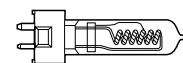
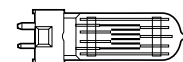
500	120	G9.5	EHD 120V	88624	10,000	2900	-	EHD	2000	105	U	D	547.84	24
500	120	G9.5	EHC Q500/5CL/P	88628	12,700	3150	-	EHC	500	105	U	C	510.33	24
575	115	G9.5	FLK 575W 115V G9.5	88548	16,500	3200	-	FLK	300	105	U	C	629.65	24
575	115	G9.5	HX601 FLK/LL 575W/115-120V	88452	10,000	3100	-	EHD	2000	105	U	D	611.86	50
575	115	G9.5	GLC 575W HP 115V	88423	14,500	3200	-	GLC	300	105	U	D	608.92	24
575	115	G9.5	GLA 575W HP 115V LL	88424	13,000	3050	-	GLA	1500	105	U	D	622.67	24
600	230	G9.5	GKV 600W 230V G9.5	88448	14,000	3200	-	GKV	250	105	U	C	584.62	24
600	240	G9.5	GKV 600W 240V G9.5	88447	14,000	3200	-	GKV	250	105	U	C	585.81	24
600	230	G9.5	GKV LL 230V 600W	88446	11,000	3000	-	GKV	1500	105	U	D	593.64	24
600	240	G9.5	GKV LL 240V 600W	88445	11,000	3000	-	GKV	1500	105	U	D	587.77	24
650	230-240	G9.5	FKR 230-240V	88450	15,000	3100	-	FKR	300	105	U	C	652.78	24
750	115	G9.5	GLE 115V	88426	17,400	3050	-	GLE	1500	105	U	D	817.20	24
750	115	G9.5	GLD 115V	88427	19,000	3200	-	GLD	300	105	U	C	806.46	24
750	120	G9.5	EHF Q750/4CL	88627	20,000	3200	-	EHF	300	105	U	C	804.03	24
750	120	G9.5	EHG Q750/CL/TP 750W 120V	88626	16,500	3000	-	FLK	300	105	U	E	801.44	24

HPL

GY9.5



Watts	Volts	Cap / base	Description	Product code	Lumens	CCT [K]	LIF Code	ANSI Code	Life [h]	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
800	230-240	G9.5	GKV 800W 230-240V	88432	20,000	3200	HX800	-	250	105	U	C	785.61	24
1000	120	G9.5	FEL Q1000/4CL 120V	88625	27,500	3200	CP77	FEL	300	105	U	C	1012.88	24
1000	230-240	G9.5	CP77 FEP 230- 240V	88449	25,000	3200	CP77	FEP	300	105	U	C	980.89	24
300	120	GY9.5	CP81 FKW 120V	88443	6900	3200	CP81	FKW	50	90	BDTH	D	322.92	24
300	230	GY9.5	CP81 FSL 230V	88433	6900	3200	CP81	FSL	150	90	BDTH	C	317.74	24
300	240	GY9.5	CP81 FSK 240V	88444	6900	3200	CP81	FSK	150	90	BDTH	D	290.29	24
500	120	GY9.5	CP82 FRG 120V	88467	13,000	3200	CP82	FRG	150	90	BDTH	C	541.56	24
500	230	GY9.5	CP82 FRH 230V	88466	12,500	3200	CP82	FRH	150	90	BDTH	C	519.00	24
500	240	GY9.5	CP82 FRJ 240V	88464	12,500	3200	CP82	FRJ	150	90	BDTH	C	523.78	24
500	230-240	GY9.5	T18 GCW 230- 240V	88465	11,000	3050	T18	GCW	400	90	BDTH	C	507.85	24
500	230-240	GY9.5	T25 230-240V	88470	11,000	3000	T25	GCW	360	90	BDTH	C	498.33	24
600	120	GY9.5	FMR 120V	88504	12,600	3050	FMR	-	2000	85	BDTHCH	D	623.50	24
650	230-240	GY9.5	T27 230-240V	88469	14,500	3050	T27	GCS	400	90	BDTH	C	648.58	24
650	230-240	GY9.5	T26 GCS 230- 240V	88463	15,500	3100	T26	GCS	400	90	BDTH	C	662.84	24
650	120	GY9.5	CP89 FRK 120V	88462	16,900	3200	CP89	-	200	90	BDTH	C	722.27	24
650	230-240	GY9.5	CP89 FRM 230- 240V	88461	16,250	3200	CP89	FRM	150	90	BDTH	C	664.69	24
650	230-240	GX9.5	T12 230-240V	88431	13,500	3000	T12	-	750	110	BDTH	D	668.16	12
650	230	GX9.5	CP23 230V	72680	16,900	3200	CP23	-	100	110	BDTH	C	641.64	12
650	230-240	GX9.5	CP23 230-240V	88455	16,900	3200	CP23	-	100	110	BDTH	C	647.62	12
1000	230-240	GX9.5	CP24 230-240V	88459	26,000	3200	CP24	-	200	110	BDTH	C	1015.60	12
1000	115/120	GX9.5	T11 115-120V	88515	23,500	3050	T11	-	750	110	BDTH	D	1065.51	24
1000	240	GX9.5	T11 230-240V	88456	23,000	3050	T11	-	750	110	BDTH	C	1002.41	12
1000	230-240	GX9.5	T19 FWR 230-240V	88457	21,000	3050	T19	FWR	750	110	BDTH	D	991.31	12
1000	230	GX9.5	CP70 FVA 230V	88472	25,000	3200	CP70	FVA	200	110	BDTH	C	996.20	12
1000	240	GX9.5	CP70 FVA 240V	88471	25,000	3200	CP70	FVB	200	110	BDTH	C	996.80	12
1200	230-240	GX9.5	T29 FWT 230-240V	88454	29,000	3050	T29	FWT	400	110	BDTH	C	1193.38	12
1200	230-240	GX9.5	CP90 230-240V	88453	33,000	3200	CP90	-	200	110	BDTH	C	1187.33	12
2000	230-240	GY16	CP43 FTM 230V	96735	54,000	3200	CP43	FTM	400	145	BDTH	C	2014.80	12
2000	230-240	GY16	CP43 FTL 230-240V	88533	54,000	3200	CP43	FTL	400	145	BDTH	C	2024.69	12
2000	230-240	GY16	CP79 230-240V	88503	54,000	3200	CP79	-	350	145	BDTH	C	2034.10	12
2000	120	GY16	CP79 120V	88440	-	-	CP79	-	-	145	BDTH	C	2186.99	12
1200	80	G22	CP110 OC-1200 80V	88439	37,500	3300	-	-	300	140	BDTH	C	1303.38	12
500	120	G22	EGN 120V	88509	13,000	3200	-	EGN	150	140	BDTH	C	544.52	12
650	230-240	G22	CP39 FKH 230- 240V	88531	16,900	3200	CP39	FKH	100	140	BDTH	C	644.16	12
750	120	G22	EGR-Q750T7/4CL 120	88621	21,000	3200	-	EGR	200	127	BDTH	C	810.49	12

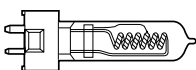
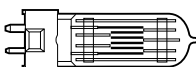
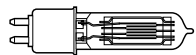
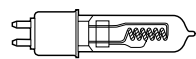


GY16

GY22



Entertainment Lamps



Watts	Volts	Cap/ base	Description	Product code	Lumens	CCT (K)	LIF Code	ANSI Code	Life (h)	Length (mm)	Operating position	EEC	Energy Consumption (kWh)	Outer qty
1000	120	G22	EGT-Q1000T7/4CL 120V	88622	28,500	3200	-	EGT	250	127	BDTH	C	1044.52	12
1000	230	G22	CP40 FKJ 230V	88458	26,000	3200	CP40	FKJ	200	140	BDTH	C	1002.22	12
1000	240	G22	CP40 FKJ 240V	88538	26,000	3200	CP40	FKJ	200	140	BDTH	C	1008.77	12
1200	230-240	G22	CP93 230-240V	88508	33,000	3200	CP93	-	200	140	BDTH	C	1255.78	12
2000	120	G22	CP92 120V	88507	55,000	3200	CP92	-	400	175	BDTH	C	2151.38	12
2000	230-240	G22	CP92 230-240V	88506	52,000	3200	CP92	-	400	175	BDTH	C	2028.00	12
2500	230-240	G22	CP91 230-240V	88505	67,500	3200	CP91	-	400	175	BDTH	D	588.21	12
500	120	P28s	EGE-Q500/CL/P 120V	88617	10,450	2950	-	EGE	2000	152	U	D	546.37	12
500	120	P28s	BTM 120V	88546	13,000	3200	-	BTM	150	130	BDTH	C	542.61	12
500	120	P28s	BTL-Q500T6/CL/P 120V	88547	11,000	3000	-	BTL	500	133	BDTH	D	532.92	12
500	230-240	P28s	T17 FKF 230- 240V	88498	9500	2950	T17	-	750	130	BDTH	D	504.08	12
500	230-240	P28s	T28 230-240V	88451	11,000	3000	T28	-	300	130	BDTH	C	510.97	12
650	230-240	P28s	T13 FKB 230- 240V	88497	13,500	3000	T13	-	750	130	BDTH	D	663.46	12
750	120	P28s	EGF-Q750/4CL/P 750W/120V	88618	20,400	3200	-	EGF	300	152	BDTH	C	801.78	12
750	120	P28s	EGG-Q750/CL/P120	88619	15,750	3000	-	EGG	2000	152	BDTH	E	801.25	12
750	120	P28s	BTN-Q750T7/CL/2P 120	88605	17,600	3050	-	BTN	500	121	BDTH	C	814.46	12
750	120	P28s	BTP-Q750T7/4CL/2P 120	88606	21,000	3200	-	BTP	200	121	BDTH	C	808.05	12
1000	120	P28s	EGJ-Q1000/4CL/P120V	88615	27,500	3200	-	EGJ	500	152	U	C	1068.59	12
1000	230-240	P28s	T14 FKD 230- 240V	88529	23,000	3050	T14	-	750	130	BDTH	C	1004.06	12
1000	230-240	P28s	FKE 230-240V	88499	23,000	3050	T15	FKE	750	160	BDTH	C	999.50	12
1000	230-240	P28s	CP52 FKN 230-240V	88496	26,000	3200	CP52	FKN	200	121	BDTH	C	1010.60	12
1000	120	P28s	BTR-Q1000T7/4CL/2P120	88607	28,500	3200	-	BTR	250	121	BDTH	C	1041.66	12
1000	120	P28s	EGK-Q1000/4/P 1000W/120V	88614	26,500	3200	-	EGK	300	152	BDTH	C	1067.31	12
1000	120	G38	CYV-Q1000T7/4CL/BP 1000W/120V	88630	28,500	3200	-	CYV	200	127	BDTH	C	1039.33	6
1500	120	G38	CXZ-Q1500T10/4CL 1500W/120V	88612	44,500	3200	-	CXZ	400	216	BDTH	C	1610.99	6
2000	120	G38	CYX-Q2000T10/4CL 120V	88610	59,000	3200	HX270	CYX	400	216	BDTH	C	2137.17	6
2000	230	G38	CP41 FKK 230V	88489	54,000	3200	CP41	FKK	400	216	BDTH	C	2020.00	12
2000	240	G38	CP41 FKK 240V	88488	54,000	3200	CP41	FKK	400	216	BDTH	C	2066.90	12
2500	230-240	G38	CP94 230-240V	88502	67,500	3200	CP94	-	400	210	BDTH	C	2507.19	12
3000	230-240	G38	HX48 230-240V	88874	82,000	3200	HX48	-	400	210	BDTH	C	2922.00	12
1000	120	E40	DKZ/DSE Q1000	19926	28,000	3200	-	DSE	750	330	U	C	995.43	10
1500	120	E40	DKX/DSF Q1500T10	19927	41,000	3200	-	DSF	1000	330	BDTH	C	1509.58	10
2000	120	E40	BWF-Q2000/4CL 120V	88611	54,000	3200	-	BWF	500	191	BDTH	C	2134.31	6
2000	240	E40	CP59 230-240V	88512	16,500	3200	-	-	100	191	U	C	1959.30	1
1000	120	P40s	BVV-Q1MT7/4CL/MP	88631	28,500	3200	-	BVV	200	184	BDTH	C	1043.46	6
1000	120	P40s	BVT-Q1MT7/CL/MP 120V	88608	24,500	3050	-	BVT	500	184	BDTH	C	1051.41	6
1500	120	P40s	DTA 120V	88500	41,000	3200	T16	DTA	750	180	BDTH	C	1639.40	6
2000	120	P40s	BVW-Q2MT10/4CL/MP	88609	59,000	3200	-	BVW	350	215	BDTH	C	2134.31	6
2000	230-240	P40s	CP53 230-240V	88532	54,000	3200	CP53	-	400	200	BDTH	C	2066.04	12

P28s

P28s

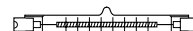
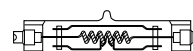
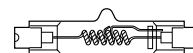
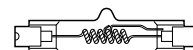
P40s

G38

E40



Watts	Volts	Cap / base	Description	Product code	Lumens	CCT [K]	LIF Code	ANSI Code	Life [h]	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
Double Ended Quartzline														
500	120	R7s	TU FDN Q500T3/4	23734	12,800	3200	P2/31	FDN	400	119	BDTH	C	545.90	12
500	120	R7s	TU FDF Q500T3/4CL	23735	13,250	3200	P2/30	FDF	400	119	BDTH	C	543.56	12
625	230	R7s	TU P2/10 Q625T3/4CL 220/230V	19697	16,900	3200	P2/10	-	300	189	HOR±15°	C	651.43	12
625	240	R7s	TU P2/10 Q625T3/4CL 240/250V	19698	16,900	3200	P2/10	-	300	189	HOR±15°	C	621.29	12
650	120	R7s	FAD Q650T4/CL P2/6	30325	16,500	3200	P2/6	FAD	100	80	U	C	675.27	24
750	120	R7s	TU EMD Q750T3/4	23755	19,500	3200	-	EMD	400	119	U	C	814.39	12
750	120	R7s	TU EJG Q750T3/4CL	23756	20,600	3200	-	EJG	400	119	HOR±15°	C	815.07	12
800	230	R7s	DXX800-T4-4CL 230V	36952	21,400	3200	P2/13	DXX	75	80	U	C	792.40	24
800	240	R7s	DXX 800-T4-4CL 240V	36953	21,400	3200	P2/13	DXX	75	80	U	C	788.20	24
800	240	R7s	TU P2/11 EME Q800T3/4CL 240V	23760	22,000	3200	P2/11	EME	150	119	HOR±15°	C	826.06	12
800	240	R7s	TU P2/11 EMF Q800T3/4	23761	21,400	3200	P2/11	EMF	150	119	HOR±15°	C	825.38	12
1000	120	R7s	DXW	30157	28,000	3200	-	DXW	150	95	U	C	1042.51	24
1000	120	R7s	TU FHM Q1000T3/4	23792	27,300	3200	P2/29	FHM	400	119	U	C	1083.85	12
1000	120	R7s	TU FFT Q1000T3/1CL	33280	26,400	3200	-	FFT	400	167	U	D	1087.56	12
1000	230	R7s	TU P2/7 EKM Q1MT3/4CL 220/230V	20249	28,000	3200	P2/7	EKM	300	189	HOR±15°	C	1013.60	12
1000	240	R7s	TU P2/7 EKM Q1MT3/4CL 240/250V	20253	28,000	3200	P2/7	EKM	300	189	HOR±15°	C	1007.20	12
1000	120	R7s	TU FCM P2/28 Q1000T3/4CL	23797	28,000	3200	P2/28	FCM	400	119	HOR±15°	C	1081.09	12
1250	230	R7s	TU P2/12 Q1250T3/4CL 220/230V	19695	35,000	3200	P2/12	-	300	189	HOR±15°	C	1286.30	12
1250	240	R7s	TU P2/12 Q1250T3/4CL 240/250V	19696	35,000	3200	P2/12	-	300	189	HOR±15°	C	1281.60	12
2000	230	R7s	P2/27 FEX 230V	88482	50,000	3200	P2/27	FEX	300	143	HOR±15°	C	1965.54	12
2000	240	R7s	P2/27 FEX 240V	88481	50,000	3200	P2/27	FEX	300	143	HOR±15°	C	1975.92	12
2000	120	R7s	FEY Q2000 T8/4CL	88629	57,000	3200	P2/27	FEY	400	143	HOR±15°	C	2175.97	12



R7s



Entertainment Lamps



Other applications

Watts	Volts	Cap / base	Description	Product code	Lumens	CCT [K]	Life [h]	Candela	BEAM TYPE	Beam 10%	Beam 50%	MPBC	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
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ConstantColor™ - CMH Single Ended GX9.5

400	135	GX9.5	CMH400/932/GX9.5	73579	40,000	3200	5000	-	-	-	-	-	135	U	A+	440.00	4
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ConstantColor™ CMH -PAR64

150	95	GX16d	CMH150/PAR64/830/GX16D/MFL	88537	-	3000	8000	47,000	Medium	18x15	13x11	80,000	152	U	C	165.00	6
150	100	GX16d	CMH150/PAR64/842/GX16D/MFL	88542	-	4200	8000	47,000	Medium	18x15	13x11	80,000	152	U	C	165.00	6

CSS

140	85	GY9.5	CSS150/CAP/50	88485	9,000	5000	1000	-	48	22	30	-	48	VBD±90	A	154.00	10
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CSI/CID

400	100	Special	CSI400/99-0201	88495	32,000	4000±400	500	-	-	-	-	-	55	VBD±90	A	440.00	1
400	100	Special	CSI400/G22 99-0202	88412	32,000	4000±400	500	-	-	-	-	-	87	VBD±90	C	440.00	1
1000	80	G22	CSI1000/G22 99-02	88494	90,000	4000±400	500	-	-	-	-	-	115	VBD±90	A+	1100.00	1
1000	80	G38	CSI1000/PAR64/G38	88514	76,000	3800±500	3500	-	-	18	6	1,350,000	175	U	C	1100.00	1
1000	80	G38	CSI1000/PAR64/HR/G38 99-1422	88513	76,000	3800±500	3500	-	-	18	6	1,350,000	175	U	C	1100.00	1
1000	80	G22	CID1000/G22 99-0222	88493	70,000	5500±400	500	-	-	-	-	-	115	BDTH	A	1100.00	1

Watts	Volts	Cap / base	Description	Product code	Lumens	CCT [K]	LIF Code	ANSI Code	Life [h]	Application	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
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Specialist Projector

50	12	G6.35	BRL A1/220 12V Q50/G6.35-15	18234	1400	3400	A1/220	BRL	50	-	44	BDTH	B	56.21	100
100	12	GY6.35	FCR A1/215 12V	14876	3500	3300	A1/215	FCR	50	-	44	BDTH	B	113.83	100
150	24	G6.35	FCS A1/216 24V Q150/G6.35-15	13598	4500	3300	A1/216	FCS	50	-	51	BDTH	B	166.07	100
250	24	G6.35	EHJ A1/223 24V Q250/G -15	14874	9000	3400	A1/223	EHJ	50	-	57	BDTH	B	273.13	100
400	36	GY6.35	EVD 36V 400W	41164	16,000	3200	A1/239	EVD	50	-	60	BDTH	B	457.46	25
650	240	G29.5	DYR 650W 240V	26895	16,500	3200	A1/233	DYR	50	-	64	U	C	667.89	24
800	230-240	GX9.5	HX185 800W 230-240V	88484	19,000	3050	HX185	-	300	-	100	BDTH	C	818.84	24
150	230-240	G6.35	A1/248 230-240V	88492	3000	-	A1/248	-	50	-	62	BDTH	D	152.55	50
300	230-240	G6.35	A1/249 230-240V	88491	7200	-	A1/249	-	50	-	62	BDTH	C	300.35	50
500	230-240	GY9.5	A1/244 230-240V	88460	13,000	-	A1/244	-	75	-	62	BDTH	C	507.25	24

ConstantColor™ - CMH Single Ended GX9.5



ConstantColor™ - CMH PAR64



CSI/CID



Other applications

Watts	Volts	Cap / base	Description	Product code	Lumens	CCT [K]	LIF Code	ANSI Code	Life [h]	Application	Length [mm]	Operating position	EEC	Energy Consumption [kWh]	Outer qty
Single Ended Tungsten Halogen															
250	24	G6.35	M36 24V 250W GY6.35	88516	5750	3000	M36	-	2000	-	58	BDTH	C	270.07	100
300	230-240	GY9.5	M38 230-240V	88442	5000	2900	M38	-	2000	-	80	BDTH	E	297.52	24
300	120	GY9.5	M38 120V	78343	5500	2900	M38	-	2000	-	80*	BDTH	E	322.43	24
500	230-240	GY9.5	M40 230-240V	88468	8500	2900	M40	-	2000	-	85	BDTH	E	495.25	24
Multi-Mirror® Quartzline® Projection – MR11															
28	13.8	GZ4	FLT 13.8 28W	25261	-	3050	-	FLT	500	Microfilm	-	BDTH	B	29.53	10
Multi-Mirror® Quartzline® Projection – MR16															
50	12	GX5.3	ENL	25475	-	3050	-	ENL	4000	Fibre optics, Enlarger & Printer, Equipment, Colour printer	-	BDTH	B	53.04	20
85	13.8	GX5.3	DED 13.8V	43950	-	3150	-	DED	1000	Microfilm	-	BDTH	C	90.10	20
150	20	GX5.3	DDL 20V 150W MR16	43537	-	3150	-	DDL	500	Microfilm	-	BDTH	B	147.87	20
150	21	GX5.3	EKE 21V	35200	-	3250	-	EKE	200	8mm projection	-	BDTH	B	159.68	20
250	24	GX5.3	ELC A1/259 24V	37462	-	3400	A1/259	ELC	50	16mm, Colour printer	-	BDTH	B	263.37	20
250	24	GY5.3	ELC / 500 24V 250W	15377	-	3250	-	ELC500	500	Disco	-	BDTH	B	260.77	20
360	82	GY5.3	ENX	41705	-	3300	-	ENX	75	Overhead projection	-	BDTH	B	389.85	10
42	10.8	GX5.3	EPT 10.8V	41729	-	2900	-	EPT	8000	Fibre optics	-	BDTH	B	45.07	20

*Diameter 24mm

Multi-Mirror® Quartzline® Projection



Compliance and warnings



Special purpose lamps.
Not suitable for household illumination.

DISCHARGE

Compliance

Standards

- IEC 60061-1: Lamp Caps and Holders together with Gauges for the Control of Interchangeability and Safety – Part 1: Lamp Caps
- CIE S 009/E:2002: Photobiological Safety of Lamps and Lamp Systems

Directives

- CE mark: Directive 73/23/EEC, 2004/108/EC and 93/68/EEC
- RoHS II: Directive 2011/65/EU on the Restriction of the use of certain Hazardous Substances
- REACH: Directive 2006/1907/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- Hg: Directive 2002/96/EC (WEEE) Article 10 (3)
- UN2911: IAEA Pub 1384-2009 Safety Sec 544 (d)
- Der Grüne Punkt: Directive 94/62/EC Packaging and Packaging Waste

Warning

Risk of electric shock

- Turn power off before inspection, installation or removal
- Do not use where directly exposed to water or outdoors without an enclosed fixture

Risk of fire

- Keep combustible materials away from lamp
- Use in enclosed fixture rated for this product

Lamp emits UV radiation which may cause eye/skin injury. RG-3

- Avoid exposure of eyes and skin to unshielded lamp

Unexpected lamp rupture may cause injury, fire, or property damage

- Do not exceed rated wattage or voltage
- Do not touch glass with bare hands
- Use in enclosed fixture rated for this product
- Do not use lamp if outer glass is scratched or broken
- Use only properly rated ballast
- Operate lamp only in specified position
- Do not store flammable materials near/below lamp
- Do not use beyond rated life
- Do not turn on lamp until fully installed

Caution

Risk of burn

- Allow lamp to cool before handling
- Do not turn on lamp until fully installed

Lamp may shatter and cause injury if broken

- Do not use lamp if outer glass is scratched or broken
- Dispose of lamp in a closed container
- Do not use excessive force when installing lamp

Cut hazard - possible jagged glass

- Wear gloves when handling

HALOGEN

Compliance

Standards

- IEC60061-1 Lamp caps and holders together with gauges for the control of interchangeability and safety – Part 1: Lamp Caps
- IEC60432-3 Incandescent lamps - Safety specifications - Part 3: Tungsten-halogen lamps (non-vehicle)
- CIE S 009:2002 Photobiological safety of lamps and lamp systems

Directives

- Safety (LVD): 2006/95/EC
- RoHS: Directive 2011/65/EU on Restrictions of the use of certain Hazardous Substances (RoHS)
- REACH: Directive 453/2010/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- ErP household: Directive 2009/125/EC on ecodesign requirements (of Energy-related Products) and its Implementing Measure for non-directional Household Lamps: 244/2009/EC

Warning

These lamps are not intended for household room illumination. Their intended purpose is Stage/Studio lighting.

Risk of electric shock

- Turn power off before inspection, installation or removal

Risk of fire

- Keep combustible materials away from lamp
- Use in fixture rated for this product

Pressurised lamp - unexpected rupture may cause injury, fire, or property damage

- Do not exceed 110% of rated voltage
- Do not touch glass with bare hands
- Use in enclosed fixture rated for this product
- Do not use lamp if outer glass is scratched or broken
- Operate lamp only in specified position

Caution

Risk of burn

- Allow lamp to cool before handling
- Turn power off before installing lamp

Lamp emits UV radiation, IR and blue light which may cause eye/skin irritation. RG-2

- Limit unshielded exposure to less than 15 minutes per day
- Optical elements of the fixture may concentrate UV, blue light and IR radiation of the lamp. Do not stare in the direct light

Lamp may shatter and cause injury if broken

- Wear safety glasses and gloves when handling lamp
- Do not use lamp if outer glass is scratched or broken
- Dispose of lamp in a closed container