Lamps for Entertainment Lighting

GE Lighting has been a leading supplier to stage & studio users for many decades, and continues its pioneering work in the development of new and innovative light sources.

The appropriate lighting effect for Theatres, Discoteques, Photographic, Film, and Television Studios.

Entertainment

Entertainment identification

The following glossary of terms and descriptions can help you when checking entertainment lamp specifications and when ordering products. Within each product line, lamps are divided into families - within these families, lamps are listed by wattage.

Watts:
Energy used. To find actual energy used (kWh) multiply power (watts shown) x hours of use divided by 1000

Approx Initial Lumens:
The value shown is based on spherical photometry, at rated voltage, of lamps that have been seasoned for approximately 15% (or a minimum of 2 hours) or more of thier rated average life.

Filament H & W:
Filament's size in mm

Product Code:
It is important to use this code when ordering to ensure that you receive the exact product you require

Colour Temp. (K):
Colour Temperature - in Kelvin. The visual warmth or coolness of the light. The higher the number the whiter or cooler the light appears

Diameter:
Lamp diameter in mm

Volts:
Each lamp's voltage is listed

Length:
Length in mm

LCL:
Distance between the centre of the filament and the Light Centre Length reference plane, in mm

G38 Base (mogul prefocus)

Watts	Volts	LIF Code	ANSI Code	Approx Initial Lumens	Colour Temp.K	Filament Form	Filament H&W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code
3000	230	HX48		82000	3200	MP	24x26	210	47	127	400	12	K	**30503**
3000	240			82000	3200	MP	24x26	210	47	127	400	12	K	**30504**
5000	120	CP29	DPY	143000	3200	MP	31x26	280	65	165	500	6		**41736**
5000	230			135000	3200	MP	36x33	280	65	165	500	12		**30505**

LIF Code:
These are assigned by the Lighting Federation of London, UK. They ensure electrical and mechanical interchangeability of similarly coded lamps. LIF codes are divided into groups according to the primary application

Filament Form:
The following codes are used for filament shape
SC - *Axial Single Coil - Equivalent ANSI C8*
CC - *Axial Coiled Coil- Equivalent ANSI CC8*
MP - *Monoplane Grid - Equivalent ANSI C13*
BP - *Biplane Grid - Equivalent ANSI C13D*
TF - *Twin Monoplane Grid - Equivalent ANSI 2C13*
S.C.H - *Single Coil Hexagonal - equivalent to ANSI 6-C8*
S.C.S - *Single Coil Square - equivalent to ANSI 4-C8*

Rated Average Life Hours:
Lamp burning hours to median life expectancy

Pack Quantity:
The number of lamps in one box

ANSI Code:
These are 3-letter codes assigned by the American National Standard Institute. They provide a system of assuring mechanical and electrical inter-changeability among similarly coded lamps from various manufacturers.

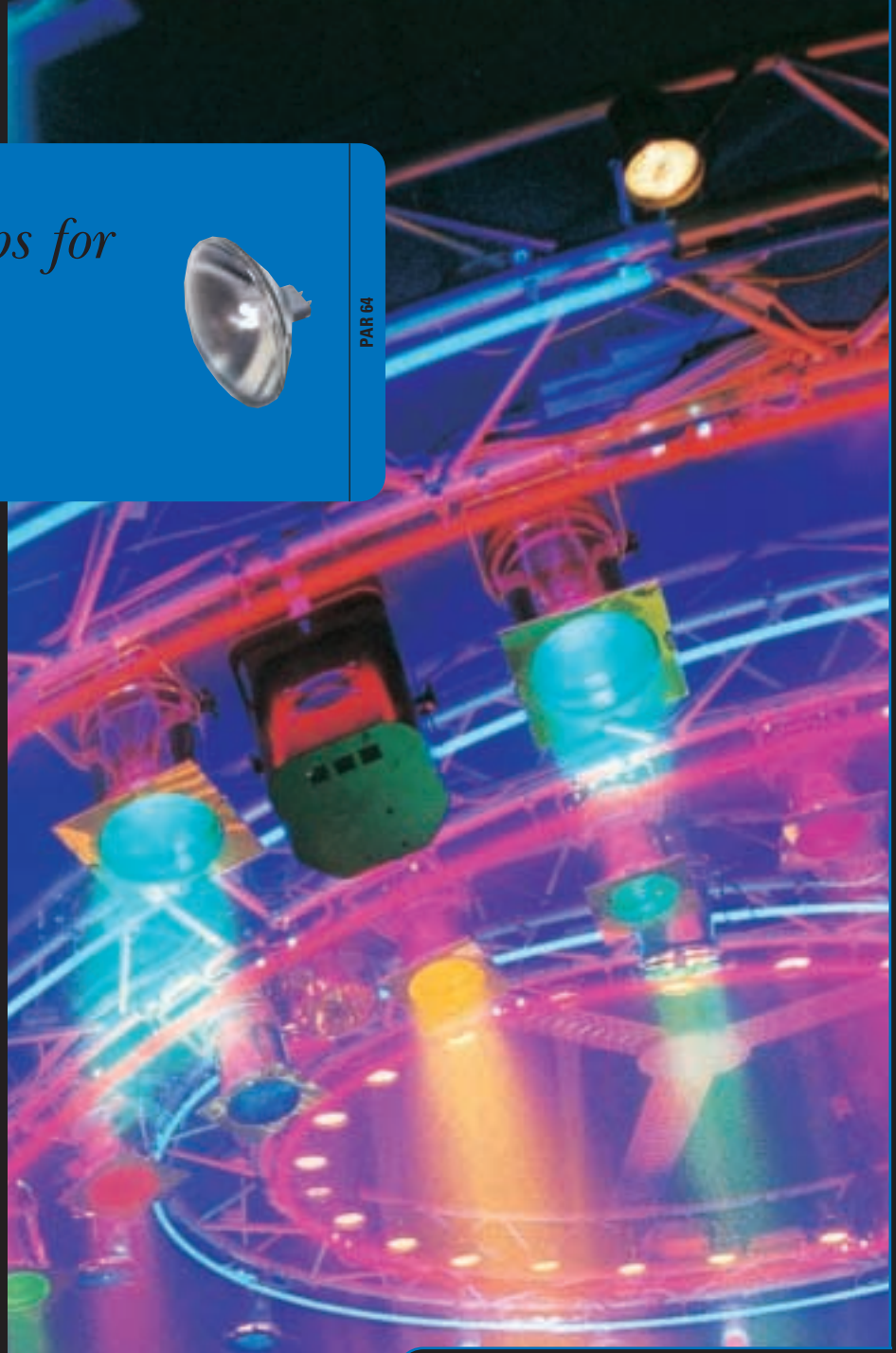
Notes:
A - Hemispherical shield in front of filament masking all direct light
B - Operate at or near horizontal
C - Protect from moisture. Safety screening techniques recommended
D - Replace broken lamp immediately. Inner bulb pressurised and could shatter unexpectedly
E - Use safety screen external to lamp
F - Operate BDTH
G - Operate BD ±30°
H - 100V rating available to order
J - 120V rating available to order
K - Specially designed for searchlight applications
L - Twin filament lamp. Lumen figures relate to single and twin filament options
M - Tungsten Halogen minimum bulb wall temp 250°C
N - 3 or 4 amp HBC fuse necessary
P - 5 or 6 amp HBC fuse necessary
Q - 6 or 7 amp HBC fuse necessary
R - 10 amp HBC fuse necessary
S - Due to internal integral reflector nominal lumens not shown
T - Obscured top
V - Due to integral dichroic reflector nominal lumens not shown
W - Axial coiled coil single ended lamps will generally give better reliability against premature arcing if orientations in which the main support spine is under the filament are avoided

PAR Lamps

GE PAR lamps for flexible design solution

PAR 64

- *The sealed beam unit prolongs the life of the inner capsule as well as protecting it from dust, vapour and other hazards*
- *The beam patterns range from narrow spot to wide angle floods*



The method of construction of PAR lamps ensures consistency from lamp to lamp, interchangeability to suit the beam pattern needs of the moment and instant replaceability without the need to refocus and re-aim the fixture.

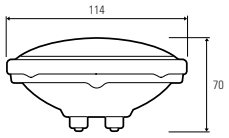
PAR lamps may be used with very simple - economical, as well as lightweight - fixtures, with consequent economies particularly with mobile or frequently changed lighting applications.

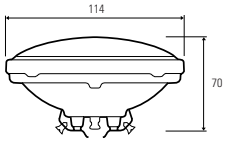
Applications:

theatres, studios and night-clubs

Entertainment

PAR



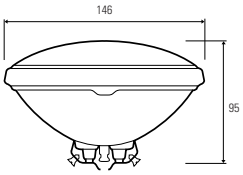


PAR 36 Ferrule cap

Watts	Volts	Order Code	Peak Intensity CD	Colour Temp. K	Approx. Beam Spread 10% Peak CD	Approx. Beam Spread 50% Peak CD	Rated Average Life Hours	Pack Quantity	Notes	Product Code
650	120	**FCW**	9000	3200	–	60x55	100	12	BC	**41672**
650	120	**FCX**	24000	3200	–	40x30	100	12	BC	**41673**

PAR 36 Screw Terminal cap

Watts	Volts	Order Code	Peak Intensity CD	Colour Temp. K	Approx. Beam Spread 10% Peak CD	Approx. Beam Spread 50% Peak CD	Rated Average Life Hours	Pack Quantity	Notes	Product Code
0.5Amp	4.7	**4546**	6300	–	3x3	–	1000	12	–	**24780**
12.5Amp	4.75	**4547**	20000	–	3x3	–	100	12	–	**24788**
25	5.5	**25PAR36**	30000	3000	5.5x4.5	–	1000	12	A	**14553**
25	12	**25PAR36/NSP**	4500	–	19x17	10x8	2000	12	A	**14554**
25	12	**25PAR36/WFL**	500	–	49x41	37x26	2000	12	A	**14555**
25	12	**25PAR36/VWFL**	250	–	82x80	40x33	2000	12	A	**14556**
30	12.8	**4405**	50000	–	6x5	–	100	12	AD	**24425**
30	6.2	**4511**	2300	–	TRAPEZOID	–	300	12	–	**24663**
30	6.4	**H4515**	67000	–	5.5x4	–	100	12	AD	**15133**
30	6.4	**4515**	55000	–	5x5	–	100	12	A	**24673**
30	6.4	**H7604**	100000	–	7x5	–	100	12	–	**43576**
30	6.4	**4516**	45000	–	9x4	–	300	12	–	**24678**
37.5	12.8	**H7616**	70000	–	7x4	–	300	12	A	**42838**
50	12	**50PAR36/VNSP**	25000	–	11x9	–	2000	12	A	**12892**
50	12	**50PAR36/NSP**	9200	–	20x17	11x9	2000	12	A	**16540**
50	12	**50PAR36/WFL**	1300	–	48x41	36x28	2000	12	A	**16541**
50	12	**50PAR36/WFL/H**	1300	3050	–	–	4000	12	–	**19880**
50	12	**50PAR36/VWFL**	600	–	80x80	40x37	2000	12	A	**16542**
50	28	**4502**	10000	–	40x7	–	400	12	–	**24627**
50	28	**4505**	45000	–	11x5	–	400	12	–	**24640**
50	28	**4593**	1500	–	80x30	–	400	12	–	**24887**
100	13	**4509**	110000	–	12x6	–	25	12	–	**24650**
100	13	**4509X**	110000	–	12x6	–	25	12	–	**41503**
100	13	**4537**	200000	–	11x6	–	25	12	–	**24742**
100	13	**4595**	60000	–	14x16	–	300	12	–	**24892**
100	28	**4591**	90000	–	12x6	–	25	12	–	**24882**
100	28	**4594**	70000	–	13x7	–	300	12	BC	**24891**
150	28	**4626**	25000	–	40x9	–	300	12	–	**24964**
150	28	**4627**	3000	–	80x30	–	300	12	–	**24966**
250	28	**4587**	4000	–	40x13	–	25	12	–	**24867**
250	28	**4596**	150000	3000	11x12	–	25	12	–	**24898**
650	120	**DWE**	24000	3200	–	40x30	100	12	BC	**41667**
650	120	**FBE**	35000	5000	–	25x15	35	12	BC	**41669**
650	120	**FBO**	75000	3400	–	25x15	30	12	BC	**41671**



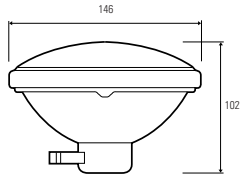
PAR 46 Screw Terminal cap

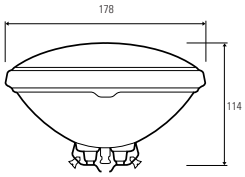
Watts	Volts	Order Code	Peak Intensity CD	Colour Temp. K	Approx. Beam Spread 10% Peak CD	Approx. Beam Spread 50% Peak CD	Rated Average Life Hours	Pack Quantity	Notes	Product Code
30	6.4	**4535**	95000	–	5.5x4	–	100	12	A	**24735**
30	12.8	**4435**	75000	–	5x5	–	300	12	A	**24577**
40	12.5	**4531**	30000	–	20x5	–	400	12	–	**24726**
50	12.8	**H7635**	160000	–	6.5x4	–	100	12	D	**43591**
100	13	**4537-2**	200000	–	11x16	–	25	12	–	**40822**
150	28	**4570**	32000	–	50x9	–	300	12	–	**24828**
150	28	**4571**	7000	–	80x25	–	300	12	–	**24830**
150	28	**4572**	4500	–	55x55	–	300	12	–	**24833**
250	28	**4551**	75000	–	50x10	–	25	12	–	**24795**
250	28	**4553**	300000	–	11x12	–	25	12	E	**24799**
450	28	**4580**	400000	–	13x14	–	10	12	–	**24859**
450	28	**4581**	400000	–	13x14	–	10	12	–	**24862**
450	16.5	**4635**	325000	–	14x15	–	25	12	–	**33284**
450	28	**Q4554**	65000	–	50x11	–	25	12	–	**37706**
450	28	**Q4597**	16000	–	60x35	–	1000	12	–	**37372**
450	28	**Q4681**	310000	–	15x9	–	50	12	–	**36271**

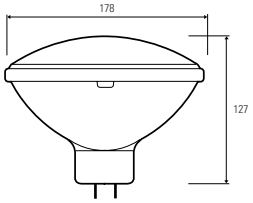
Entertainment

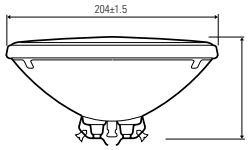
PAR

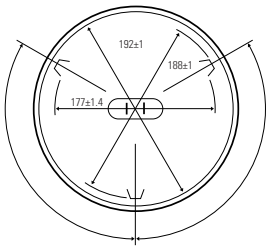
Watts	Volts	Order Code	Peak Intensity CD	Colour Temp. K	Approx. Beam Spread 10% Peak CD	Approx. Beam Spread 50% Peak CD	Rated Average Life Hours	Pack Quantity	Notes	Product Code
PAR 46 Medium Side Prong cap										
150	125	**150PAR46/3MFL**	8000	2750	39x25	26x13	2000	12	E	**41968**
200	120	**200PAR46/3MFL**	11500	2750	40x24	27x13	2000	12	E	**20138**
PAR 56 Screw Terminal cap										
100	12	**4545**	225000	–	9x5	–	100	12	A	**24768**
120	12	**120PAR56/VNSP**	60000	–	15x10	8x6	2000	12	–	**19023**
120	12	**120PAR56/MFL**	19000	–	29x15	18x9	2000	12	–	**19024**
120	12	**120PAR56/WFL**	5625	–	50x25	35x18	2000	12	–	**19025**
200	30	**200PAR**	270000	–	9x9	–	500	12	–	**20122**
240	12	**240PAR56/VNSP**	140000	–	7x10	9x6	2000	12	C	**20575**
240	12	**240PAR56/MFL**	46000	–	28x15	18x9	2000	12	C	**20576**
240	12	**240PAR56/WFL**	13000	–	50x27	35x18	2000	12	C	**20577**
300	12	**300PAR56/WFL**	–	–	–	–	1000	12	–	**23427**
PAR 56 GX16d cap										
300	120	**300PAR56/NSP**	68000	2750	20x14	10x8	2000	12	C	**20803**
300	120	**300PAR56/MFL**	24000	2750	34x19	23x11	2000	12	C	**20836**
300	120	**300PAR56/WFL**	11000	2750	57x27	37x18	2000	12	C	**20849**
300	230	**300PAR56/NSP**	70000	–	–	–	2000	12	C	**20853**
300	230	**300PAR56/MFL**	30000	–	–	–	2000	12	C	**20852**
300	230	**300PAR56/WFL**	10000	–	–	–	2000	12	C	**20854**
300	240	**300PAR56/NSP**	70000	–	–	–	2000	12	C	**18676**
300	240	**300PAR56/MFL**	30000	–	–	–	2000	12	C	**18677**
300	240	**300PAR56/WFL**	10000	–	–	–	2000	12	C	**18678**
500	120	**Q500PAR56/NSP**	96000	2950	32x15	13x8	4000	6	CD	**43494**
500	120	**Q500PAR56/MFL**	43000	2950	42x20	26x10	4000	6	CD	**43495**
500	120	**Q500PAR56/WFL**	19000	2950	66x34	44x20	4000	6	CD	**43496**
PAR 64 Screw Terminal cap										
250	28	**4552**	500000	–	8x7	–	25	12	–	**40576**
600	28	**4559**	600000	–	11x12	–	25	12	C	**40578**
600	28	**Q4559**	600000	–	12x8	–	100	12	CD	**40579**
600	28	**Q4559X**	765000	–	11x7.5	–	100	12	CD	**42552**











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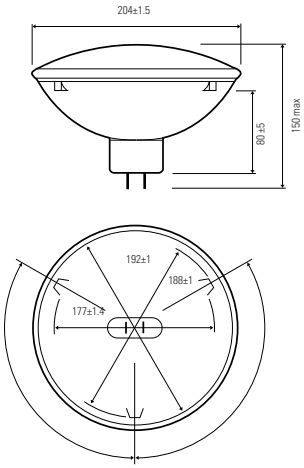


PAR

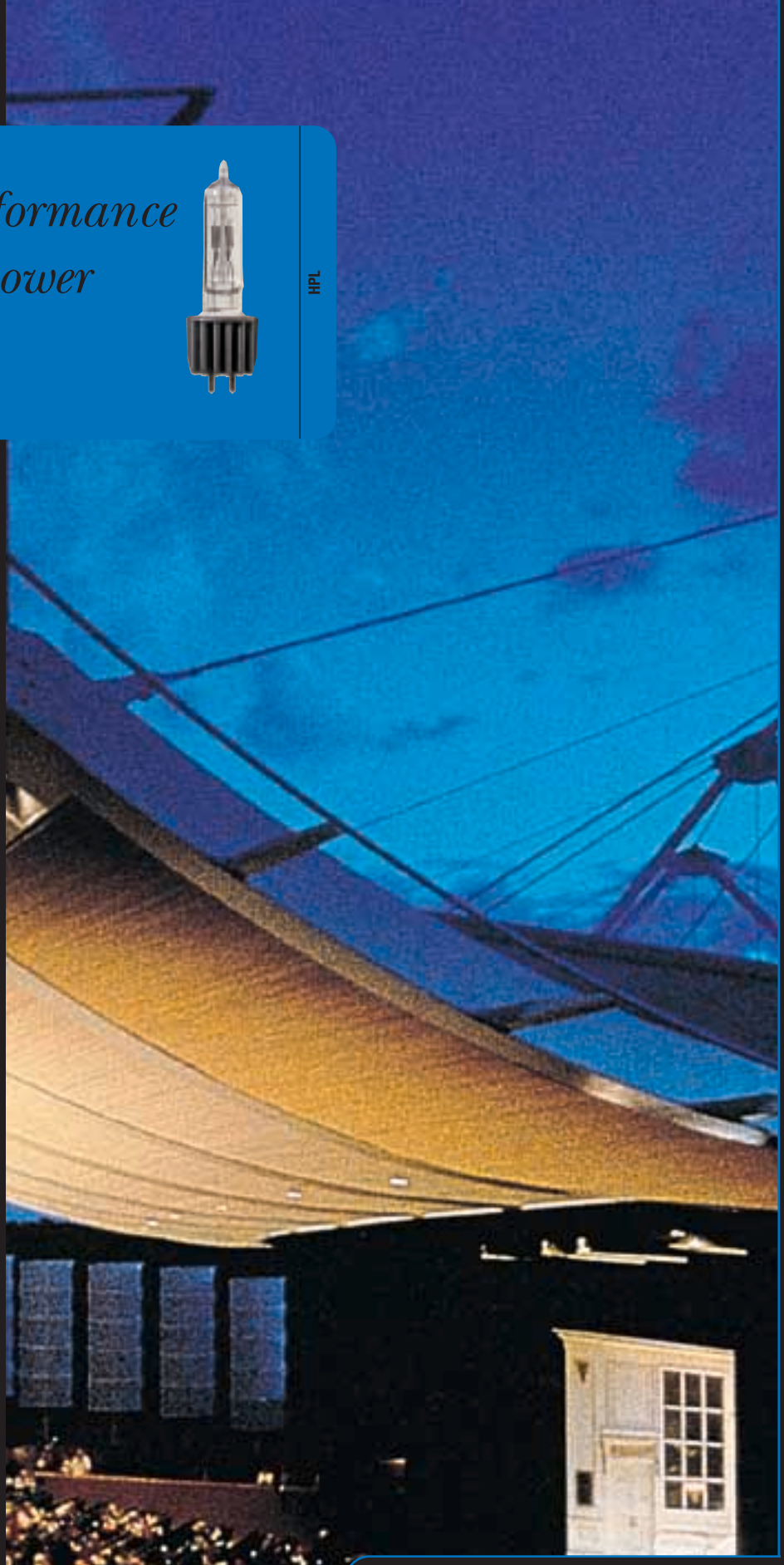
Watts	Volts	LIF Code	Order Code	Peak Intensity CD	Colour Temp. K	Approx. Beam Spread 10% Peak CD	Approx. Beam Spread 50% Peak CD	Rated Average Life Hours	Pack Quantity	Notes	Product Code
PAR 64 GX16d base (EMEP)											
500	230	**CP86**	**Q500PAR64/VNSP**	240000	3200	16x13	10x7	300	6	CD	**30280**
500	240	**CP86**	**Q500PAR64/VNSP**	240000	3200	16x13	10x7	300	6	CD	**30282**
500	230	**CP87**	**Q500PAR64/NSP**	140000	3200	19x16	11x9	300	6	CD	**30283**
500	240	**CP87**	**Q500PAR64/NSP**	140000	3200	19x16	11x9	300	6	CD	**30286**
500	230	**CP88**	**Q500PAR64/MFL**	65000	3200	32x19	21x10	300	6	CD	**30287**
500	240	**CP88**	**Q500PAR64/MFL**	65000	3200	32x19	21x10	300	6	CD	**30288**
500	230	–	**500/PAR64/MFL**	–	2800	32x19	21x10	2000	12	CD	**39411**
500	230	–	**500/PAR64/W FL**	–	2800	–	–	2000	12	CD	**39414**
800	230	–	**800PAR "POWERSAVER"**	310000	3150	17X17	9X9	250	6	CD	**35118**
800	230	–	**800PAR "POWERSAVER"**	95000	3150	35X22	26X13	250	6	CD	**35117**
800	230	–	**800PAR "POWERSAVER"**	35000	3150	55X34	45X22	250	6	CD	**35130**
800	240	–	**800PAR "POWERSAVER"**	310000	3150	17X17	9X9	250	6	CD	**35111**
800	240	–	**800PAR "POWERSAVER"**	95000	3150	35X22	26X13	250	6	CD	**35116**
800	240	–	**800PAR "POWERSAVER"**	35000	3150	55X34	45X22	250	6	CD	**35110**
1000	230	**CP60**	**EXC**	400000	3200	20x17	12x6	300	6	CD	**19909**
1000	240	**CP60**	**EXC**	400000	3200	20x17	12x6	300	6	CD	**19910**
1000	230	**CP61**	**EXD**	260000	3200	23x20	13x10	300	6	CD	**19911**
1000	240	**CP61**	**EXD**	260000	3200	23x20	13x10	300	6	CD	**19912**
1000	230	**CP62**	**EXE**	110000	3200	39x24	25x14	300	6	CD	**19913**
1000	240	**CP62**	**EXE**	110000	3200	39x24	25x14	300	6	CD	**19914**
1000	230	**CP95**	–	15000	3200	125x95	70x70	300	6	CD	**30277**
1000	240	**CP95**	–	15000	3200	125x95	70x70	300	6	CD	**30278**
1000	230	–	**EXG/PAR64/WFL**	38000	3200	73x36	57x21	300	6	CD	**35482**
1000	240	–	**EXG/PAR64/WFL**	38000	3200	73x36	57x21	300	6	CD	**35483**
PAR 64 GX16d cap (EMEP)											
500	120		**500PAR64/NSP**	110000	2800	19x14	12x7	2000	12	CD	**39406**
500	120		**500PAR64/MFL**	37000	2800	35x19	23x11	2000	12	CD	**39409**
1000	120		**FFN**	400000	3200	24x10	12x6	800	6	CD	**13233**
1000	120		**FFP**	330000	3200	26x14	14x7	800	6	CD	**13229**
1000	120		**FFR**	125000	3200	44x11	28x12	800	6	CD	**13228**
1000	120		**FFS**	40000	3200	71x45	48x24	800	6	CD	**13227**
1000	120		**FGN**	70000	5200	43x20	27x11	200	6	CD	**13225**
1000	120		**Q1000PAR64/NSP**	200000	3000	31x14	15x8	4000	6	CD	**43497**
1000	120		**Q1000PAR64/MFL**	80000	3000	45x22	28x12	4000	6	CD	**43498**
1000	120		**Q1000PAR64/VNSP**	33000	3000	72x45	48x24	4000	6	CD	**43499**

Single Ended Halogen Lamps

Optimum performance for minimal power consumption

HPL

- *These lamps are ideal for use with higher performance optics*
- *Superior hot shock durability of the filament array*



The compact design of these lamps enables them to be used with a number of commercial lamp fixtures

Applications:

theatres, studios and architectural applications

Entertainment

Single Ended Halogen

High Performance Lamps

Fig. 1

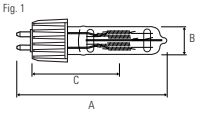
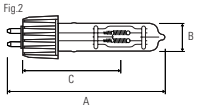


Fig.2



Watts	Volts	Order Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Product Code	Fig. No.
575	230	**HPL 575**	14900	3200	SCH	10 x 9.5	106	18	60.3	300	12	**37128**	1
575	240	**HPL 575**	14900	3200	SCH	10 x 9.5	106	18	60.3	300	12	**37131**	1
575	120	**HPL 575**	16520	3250	SCS	9.5 x 6.8	106	18	60.3	300	12	**37626**	2
575	115	**HPL 575**	16520	3250	SCS	9.5 x 6.8	106	18	60.3	300	12	**37129**	2
575	230	**HPL 575-X LL**	11780	3050	SCH	12 x 9.5	106	18	60.3	1500	12	**37817**	1
575	240	**HPL 575-X LL**	11780	3050	SCH	12 x 9.5	106	18	60.3	1500	12	**37818**	1
575	120	**HPL 575-X LL**	12360	3050	SCS	10.5 x 6.9	106	18	60.3	2000	12	**37816**	2
575	115	**HPL 575-X LL**	12360	3050	SCS	10.5 x 6.9	106	18	60.3	2000	12	**37815**	2
750	230	**HPL 750**	19750	3200	SCH	11.5 x 9.5	106	18	60.3	300	12	**37824**	1
750	240	**HPL 750**	19750	3200	SCH	11.5 x 9.5	106	18	60.3	300	12	**37826**	1
750	115	**HPL 750**	22000	3250	SCS	11.5 x 7.2	106	18	60.3	300	12	**37823**	2

The HPL 750w version has a pinned base to ensure correct application

G9.5 base

Fig. 3

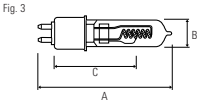
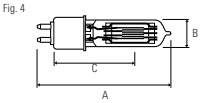


Fig. 4

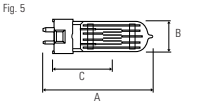


Watts	Volts	Order Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
500	120	–	**EHD**	10000	2900	CC-8	18x5	101	20	60.5	2000	24	W	**39768**	3
575	115	**HX600**	**FLK**	16500	3200	CC-8	12.7x6	101	18	60.5	300	24	W	**11450**	3
575	115	–	**FLK/LL**	12800	3100	CC-8	13.7x6	101	18	60.5	1500	50	W	**39730**	3
600	230	**HX600**	**GKV**	14000	3200	C13-D	13.5x7.5	101	18	60.5	250	24	–	**39739**	4
600	240	**HX600**	**GKV**	14000	3200	C13-D	13.5x7.5	101	18	60.5	250	24	–	**39750**	4
600	230	–	**GKV/LL**	11000	3000	C13-D	16x8	101	18	60.5	1500	24	–	**39751**	4
600	240	–	**GKV/LL**	11000	3000	C13-D	16x8	101	18	60.5	1500	24	–	**39752**	4
650	230	–	**FKR**	15000	3100	CC-8	24x5	101	20	60.5	300	12	W	**39734**	3
650	240	–	**FKR**	15000	3100	CC-8	24x5	101	20	60.5	300	12	W	**39735**	3
750	120	–	**EHF**	20000	3200	CC-8	19x7	101	20	60.5	300	24	W	**39771**	3
750	120	–	**EHG**	15000	3000	CC-8	19x7	101	20	60.5	2000	24	W	**39770**	3
800	230	**HX800**	–	20000	3200	C13-D	15.8x8.4	101	18	60.5	250	24	–	**39753**	4
800	240	**HX800**	–	20000	3200	C13-D	15.8x8.4	101	18	60.5	250	24	–	**39754**	4
1000	120	**CP77**	**FEL**	27500	3200	CC-8	19x7	101	20	60.5	300	6	W	**35607**	3
1000	230	**CP77**	**FEP**	25000	3200	CC-8	24x7	101	20	60.5	300	24	W	**39738**	3
1000	240	**CP77**	**FEP**	25000	3200	CC-8	24x7	101	20	60.5	300	24	W	**39736**	3

GKV/LL IS EQUIVALENT TO GLB

GY9.5 base - Grid-form Filament

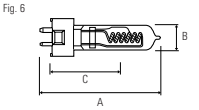
Fig. 5



Watts	Volts	LIF Code	Order Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
300	120	**CP81**	**FKW**	6900	3200	S	15x10	90	25	46	50	24	–	**39781**	5
300	220/230	**CP81**	**FSL**	6900	3200	S	11x10	90	25	46	150	24	–	**39780**	5
300	240/250	**CP81**	**FSK**	6900	3200	S	11x10	90	25	46	150	24	–	**39779**	5
500	120	**CP82**	**FRG**	13000	3200	MP	12.5x11.5	90	25	46	150	24	–	**39623**	5
500	230	**CP82**	**FRH**	12500	3200	MP	13x13	90	25	46	150	24	–	**39624**	5
500	240	**CP82**	**FRJ**	12500	3200	MP	13x13	90	25	46	150	24	–	**39628**	5
500	230	**T18**	**GCV**	11000	3050	MP	13.5x13	90	25	46	400	24	–	**39717**	5
500	240	**T18**	**GCW**	11000	3050	MP	13.5x13	90	25	46	400	24	–	**39629**	5
500	230	**T25**	**GCV**	11000	3000	BP	11X11	90	23	46.5	360	24	–	**39455**	5
500	240	**T25**	**GCW**	11000	3000	BP	11X11	90	23	46.5	360	24	–	**39262**	5
650	230	**T27**	**GCT**	14500	3050	BP	13X11	90	23	46.5	400	24	–	**39456**	5
650	240	**T27**	**GCS**	14500	3050	BP	13X11	90	23	46.5	400	24	–	**39457**	5
650	120	**T26**	**FRE**	15000	3050	MP	13.5x13.5	90	25	46	400	24	–	**39630**	5
650	230	**T26**	**GCT**	15000	3050	MP	13.5x15.5	90	25	46	400	24	–	**39635**	5
650	240	**T26**	**GCS**	15000	3050	MP	13.5x15.5	90	25	46	400	24	–	**39636**	5
650	120	**CP89**	**FRK**	16900	3200	MP	12.5x11.5	90	25	46	200	24	–	**39637**	5
650	230	**CP89**	**FRL**	16250	3200	MP	13x13	90	25	46	150	24	–	**39640**	5
650	240	**CP89**	**FRM**	16250	3200	MP	13x13	90	25	46	150	24	–	**39642**	5

S = Staggered Filament Burning position VBD ±90

Fig. 6



GY9.5 base - Coiled Coil Filament

Watts	Volts	LIF Code	Order Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
600	120	-	**FMR**	12600	3050	CC-8	16x6	85	16	51	2000	24	W	**30475**	6

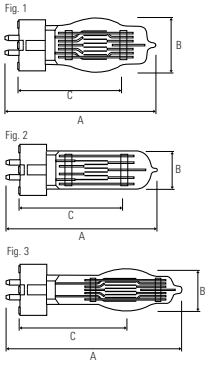
Entertainment

Single Ended Halogen

GX9.5 base

Watts	Volts	LIF Code	Order Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
650	230	**T12**	–	13500	3000	MP	15.5x14.5	110	25	55	750	12	–	**39661**	2
650	240	**T12**	–	13500	3000	MP	15.5x14.5	110	25	55	750	12	–	**39663**	2
650	230	**CP23**	–	16900	3200	MP	12x14.5	110	25	55	100	12	–	**39654**	2
650	240	**CP23**	–	16900	3200	MP	12x14.5	110	25	55	100	12	–	**39660**	2
1000	230	**CP24**	–	26000	3200	MP	18.5x17.5	110	35	55	200	12	–	**39651**	1
1000	240	**CP24**	–	26000	3200	MP	18.5x17.5	110	35	55	200	12	–	**39653**	1
1000	115/120	**T11**	**Q1000T8/CL**	23500	3050	MP	16x14	110	35	55	750	24	–	**29331**	1
1000	230	**T11**	–	23000	3050	MP	17.5x17.5	110	35	55	750	12	–	**39656**	1
1000	240	**T11**	–	23000	3050	MP	17.5x17.5	110	35	55	750	12	–	**39659**	1
1000	230	**T19**	**FWP**	21000	3050	BP	15x12	110	35	55	750	12	HJ	**39657**	2
1000	240	**T19**	**FWR**	21000	3050	BP	15x12	110	35	55	750	12	HJ	**39658**	2
1000	230	**CP70**	**FVA**	25000	3200	BP	15x12	110	35	55	200	12	HJ	**39241**	2
1000	240	**CP70**	**FVB**	25000	3200	BP	15x12	110	35	55	200	12	HJ	**39242**	2
1200	120	**T29**	–	30500	3050	BP	15x13	125	35	67	400	12	–	**39647**	3
1200	230	**T29**	**FWS**	29000	3050	BP	16x13	125	35	67	400	12	–	**39723**	3
1200	240	**T29**	**FWT**	29000	3050	BP	16x13	125	35	67	400	12	–	**39667**	3
1200	230	**CP90**	–	33000	3200	BP	16x12	125	35	67	200	12	J	**39724**	3
1200	240	**CP90**	–	33000	3200	BP	16x12	125	35	67	200	12	–	**39725**	3

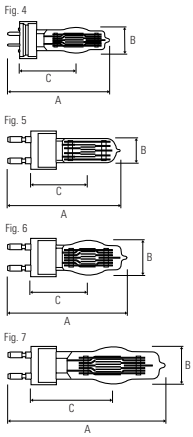
Burning position VBD ±90



GY16 base

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
2000	230	**CP43**	**FTM**	54000	3200	MP	22x22.5	145	40	70	400	12	–	**20309**	4
2000	240	**CP43**	**FTL**	54000	3200	MP	22x22.5	145	40	70	400	12	–	**20310**	4
2000	120	**CP79**	–	56000	3200	BP	17.5x16	145	40	70	400	12	–	**13053864**	4
2000	230	**CP79**	–	54000	3200	BP	18.5x17	145	40	70	350	12	H	**30497**	4
2000	240	**CP79**	–	54000	3200	BP	18.5x17	145	40	70	350	12	–	**30498**	4

Burning position VBD ±90



G22 base

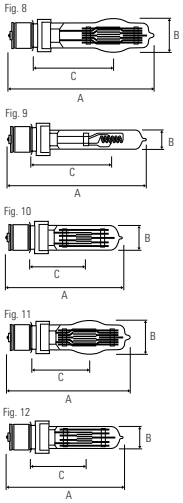
Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
500	120	–	**EGN**	13000	3200	MP	12x11.5	140	21	63.5	150	12	–	**30373**	5
650	230	**CP39**	**FKH**	16900	3200	MP	12x14.5	140	25	63.5	100	12	–	**20320**	5
650	240	**CP39**	**FKH**	16900	3200	MP	12x14.5	140	25	63.5	100	12	–	**20321**	5
1000	120	**CP39**	**EGT**	28500	3200	MP	14.5x14	140	22	63.5	250	12	–	**39191**	6
1000	230	**CP40**	**FKJ**	26000	3200	MP	18.5x17.5	140	26	63.5	250	12	–	**39655**	6
1000	240	**CP40**	**FKJ**	26000	3200	MP	18.5x17.5	140	26	63.5	250	12	–	**20286**	6
1200	240	**CP93**	–	33000	3200	BP	16x12	140	35	63.5	200	12	–	**30384**	6
2000	120	**CP92**	–	55000	3200	BP	18x17	175	40	90	400	12	–	**30391**	7
2000	230	**CP92**	–	52000	3200	BP	18.5x17	175	40	90	400	12	–	**30394**	7
2000	240	**CP92**	–	52000	3200	BP	18.5x17	175	40	90	400	12	–	**30397**	7
2500	230	**CP91**	–	67500	3200	BP	24x18	175	40	90	400	12	–	**30415**	7
2500	240	**CP91**	–	67500	3200	BP	24x18	175	40	90	400	12	–	**30423**	7

Burning position VBD ±90

P28s base (medium prefocus)

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
500	120	–	**EGE**	10450	2950	CC-8	18x5	152	13	88.9	2000	12	–	**39135**	9
500	120	–	**BTM**	13000	3200	MP	12x11.5	130	21	55.5	150	12	–	**16465**	12
500	230	**T17**	**FKF**	9500	2950	MP	13.5x14.5	130	21	55.5	750	12	–	**30535**	12
500	240	**T17**	–	9500	2950	MP	13.5x14.5	130	21	55.5	750	12	–	**30536**	12
500	230	**T28**	–	11000	3000	MP	15x12	130	12	55.5	300	12	–	**39731**	12
500	240	**T28**	–	11000	3000	MP	15x12	130	21	55.5	300	12	–	**39733**	12
650	230	**T13**	**FKB**	13500	3000	MP	15.5x14.5	130	25	55.5	750	12	–	**30541**	10
650	240	**T13**	–	13500	3000	MP	15.5x14.5	130	25	55.5	750	12	–	**30542**	10
650	230	**CP51**	**FKM**	16900	3200	MP	12x14.5	130	25	55.5	200	12	–	**20323**	10
650	240	**CP51**	–	16900	3200	MP	12x14.5	130	25	55.5	200	12	–	**20324**	10
1000	120	–	**EGJ**	27500	3200	CC-8	19x7	152	20	88.9	500	12	W	**38853**	9
1000	230	–	**EWE**	26500	3200	CC-8	24x6	152	20	88.9	250	12	W	**30533**	9
1000	230	**T14**	**FKD**	23000	3050	MP	17.5x17.5	130	35	55.5	750	12	–	**20385**	11
1000	240	–	**EWE**	26500	3200	CC-8	24x6	152	20	88.9	250	12	W	**30534**	9
1000	240	**T14**	–	23000	3050	MP	17.5x17.5	130	35	55.5	750	12	–	**20388**	11
1000	240	**T15**	**FKE**	23000	3050	MP	17.5x17.5	160	35	88.9	750	12	–	**30532**	8
1000	240	**CP52**	**FKN**	26000	3200	MP	18.5x17.5	130	35	55.5	200	12	–	**30546**	11

Burning position VBD ±90



Entertainment

Single Ended Halogen

G38 base (mogul prefocus)

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
1000	230	**HX270**	–	25000	3200	BP	15x12	216	35	127	200	12	–	**35234**	3
1000	240	**HX270**	–	25000	3200	BP	15x12	216	35	127	200	12	–	**35233**	3
2000	120	**HX270**	**CYX**	59000	3200	MP	21.5x20.5	216	32	127	400	6	–	**36636**	3
2000	230	**CP41**	**FKK**	54000	3200	MP	22x22.5	216	32	127	400	12	–	**31844**	3
2000	240	**CP41**	**FKK**	54000	3200	MP	22x22.5	216	32	127	400	12	–	**31849**	3
2500	230	**CP94**	–	67500	3200	BP	24x18	210	40	127	400	12	–	**30499**	3
2500	240	**CP94**	–	67500	3200	BP	24x18	210	40	127	400	12	–	**30500**	3
3000	230	**HX48**	–	82000	3200	MP	24x26	210	47	127	400	12	K	**30503**	4
3000	240	**HX48**	–	82000	3200	MP	24x26	210	47	127	400	12	K	**30504**	4
5000	120	**CP29**	**DPY**	143000	3200	MP	31x36	280	65	165	500	6	–	**41736**	1
5000	230	**CP29**	–	135000	3200	MP	36x33	280	65	165	500	12	–	**30505**	1
5000	240	**CP29**	–	135000	3200	MP	36x33	280	65	165	500	12	–	**30506**	1
10000	230	**CP83**	–	290000	3200	MP	41x52	380	86	254	500	4	–	**30507**	2
10000	240	**CP83**	–	290000	3200	MP	41x52	380	86	254	500	4	–	**30508**	2

Burning position VBD ±90 except HX48 VBD ±45

Fig. 1

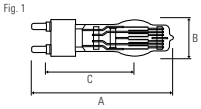


Fig. 2

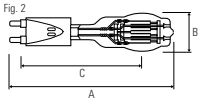


Fig. 3

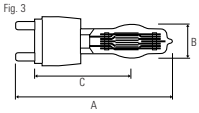
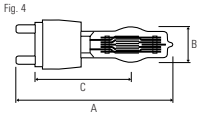


Fig. 4

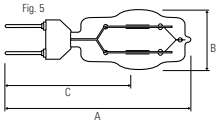


GX38q base - Twin filament

Watts	Volts	LIF Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
1250/650	230	**CP105**	27000/13000	3050	TF	24x18.5	220	55	143	250	12	L	**34056**	5
1250/650	240	**CP105**	27000/13000	3050	TF	24x18.5	220	55	143	250	12	L	**34024**	5
1250/1250	230	**CP30**	27000/56000	3200	TF	24x18.5(x2)	220	55	143	300	12	L	**30513**	5
1250/1250	240	**CP30**	27000/56000	3200	TP	24x18.5(x2)	220	55	143	300	12	L	**30514**	5
1250/2250	230	**CP58**	27000/59000/91000	3200	TF	27.5x25/24x22	220	70	143	300	12	L	**30515**	5
1250/2500	240	**CP58**	27000/59000/91000	3200	TF	27.5x25/24x22	220	70	143	300	12	L	**30517**	5
2500/2500	230	**CP32**	59000/127000	3200	TF	27.5x25(x2)	220	70	143	300	12	L	**30518**	5
2500/2500	240	**CP32**	59000/127000	3200	TF	27.5x25(x2)	220	70	143	300	12	L	**30519**	5

Burning position VBD ±45

Fig. 5



E40 base - Clear, Coil Filament

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
2000	220/230	**CP59**	–	50000	3200	CC-8	40x7	190	30	133	300	12	W	**29424**	6
2000	240	**CP59**	–	50000	3200	CC-8	40x7	190	30	133	300	12	W	**29426**	6

E40 base - Frosted, Coil Filament

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
1000	120	–	**DKZ/DSE**	28000	3200	CC-8	–	330	165	–	750	10	–	**34377**	7
1500	120	–	**DKX/DSF**	41000	3200	CC-8	–	330	165	–	1000	12	–	**40357**	7
2000	120	–	**BWG**	56000	3200	CC-8	40x8	190	30	133	19000	6	W	**30491**	6

DKX/DSF Burning position – any

P40s base (mogul prefocus)

Watts	Volts	LIF Code	ANSI Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Type H x W	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
1000	230	**T16**	–	23000	3050	MP	17.5x17.5	180	35	87	750	12	–	**30520**	8
1000	240	**T16**	–	23000	3050	MP	17.5x17.5	180	35	87	750	12	–	**30521**	8
1500	120	**T16**	**DTA**	41000	3200	MP	19x17	200	40	87	300	6	–	**30522**	9
2000	230	**CP53**	–	54000	3200	MP	22x22.5	200	40	87	400	6	–	**20311**	9
2000	240	**CP53**	–	54000	3200	MP	22x22.5	200	40	87	400	6	–	**20312**	9

Burning position VBD ±90

Fig. 6

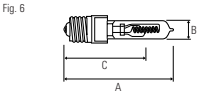


Fig. 7

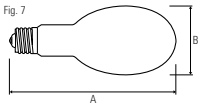


Fig. 8

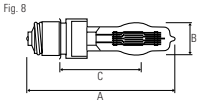
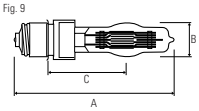
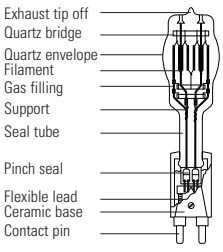


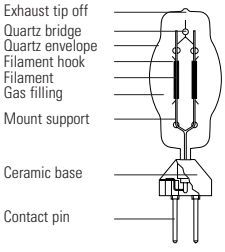
Fig. 9



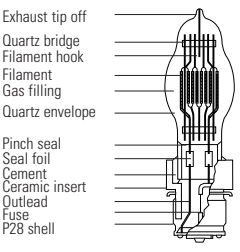
A typical high wattage studio lamp



A typical 4 pin twin filament studio lamp



A typical low wattage theatre class tungsten halogen lamp



Linear Halogen Lamps

Choose GE Quartzline™ linear - and you can start the show

Double-ended Quartzline™ lamp

- *High maintained light output*
- *Excellent colour performance throughout life*

CNBC Europe's Studio. CNBC, the 24-hour global business television news channel

GE's double ended Quartzline™ lamps produce excellent colour rendering, stable light output and long life. The quality construction assures you of dependable outstanding performance

Applications:

the smaller lamps are typically used in photographic or film studios; the small and intermediate lamps in scoops and striplights for border and cyclorama lighting

Entertainment

Linear Halogen Lamps

Watts	Volts	LIF Code	Order Code	Approx. Initial Lumens	Colour Temp. K	Filament Form	Lighted Length	A Length mm	B Diameter mm	Rated Average Life Hours	Pack Quantity	Notes	Product Code	Fig. No.
Double-Ended Quartzline™ Lamps with R7s Caps														
Length 79.4mm														
650	120	**P2/6**	**FAD**	16500	3200	CC-8	15.9	79.4	13.5	100	24	C	**30325**	1
800	230	**P2/13**	**DXX**	21400	3200	CC-8	25.4	79.4	13.5	90	24	C	**36952**	1
800	240	**P2/13**	**DXX**	21400	3200	CC-8	25.4	79.4	13.5	90	24	C	**36953**	1
Length 95.3mm														
1000	120	–	**DXW**	28000	3200	CC-8	22.2	95.3	16	150	24	–	**30157**	2
1000	120	–	**FBY**	26000	3200	CC-8	22.2	95.3	16	150	24	Frost	**30374**	2
Length 119.1mm - Burn Horizontal ±4°														
300	120	–	**EHM**	5950	2950	C-8	58.7	119.1	11	2000	6	–	**43703**	3
500	120	–	**FCL**	11100	3000	C-8	57.2	119.1	11	2000	12	–	**23731**	3
750	120	–	**EJG**	20600	3200	C-8	61.9	119.1	11	400	12	–	**23756**	3
800	230	**P2/11**	**EME**	22000	3200	C-8	71.4	119.1	11	150	12	–	**23760**	3
800	240	**P2/11**	**EMF**	22000	3200	C-8	71.4	119.1	11	150	12	–	**23761**	3
1000	120	**P2/28**	**FCM**	25200	3275	C-8	60.3	119.1	11	400	12	–	**23797**	3
Length 142.9mm - Burn Horizontal ±4°														
2000	230	**P2/27**	**FEX**	50000	3200	CC-8	37	142.9	30	300	12	–	**35338**	4
2000	240	**P2/27**	**FEX**	50000	3200	CC-8	37	142.9	30	300	12	–	**35339**	4
2000	120	**P2/27**	**FEY**	57000	3200	CC-8	37	142.9	30	400	6	–	**33761**	4
Length 189.1mm - Burn Horizontal ±4°														
625	230	**P2/10**	–	16900	3200	C-8	120	189.1	12	300	12	–	**19697**	5
625	240	**P2/10**	–	16900	3200	C-8	120	189.1	12	300	12	–	**19698**	5
1000	230	**P2/7**	**EKM**	28000	3200	C-8	120	189.1	12	300	12	–	**20249**	5
1000	240	**P2/7**	**EKM**	28000	3200	C-8	120	189.1	12	300	12	–	**20253**	5
1250	230	**P2/12**	–	35000	3200	C-8	120	189.1	12	300	12	–	**19695**	5
1250	240	**P2/12**	–	35000	3200	C-8	120	189.1	12	300	12	–	**19696**	5

Fig. 1

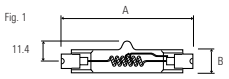


Fig. 2

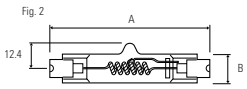


Fig. 3

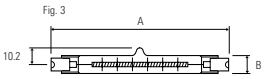


Fig. 4

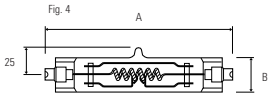
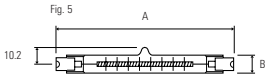
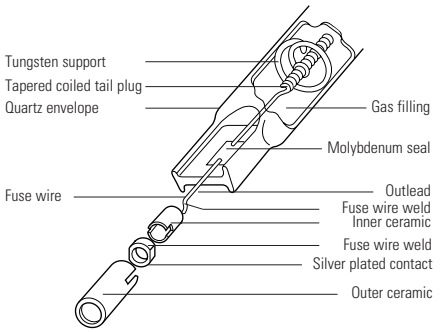


Fig. 5



End section of a typical quartz linear tungsten halogen lamp



Specialist Projector Lamps

Tailored filaments for your equipment

Specialist Projector

- *Consistent colour throughout life*
- *Excellent optical performance*

Precisely manufactured, tailored filaments which maximise source brightness giving optimum performance in precision optical devices.

High light-generating efficacy (lumens per watt) to help minimise power consumption and heat generation.

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

Applications:

photo and video cameras, slide projector, overhead projector, micrographics, photo printers and enlargers, medical and scientific instruments

Entertainment

Specialist Projector

Single-ended Quartzline™ - Projector Lamps

Watts	Volts	ANSI Code	LIF Code	Approx. Initial Lumens	Operating Position	Filament	Source Size WxH	Approx. Colour Temp. K	A Length mm	C LCL mm	Rated Average Life Hours	Cap	Pack Quantity	Notes	Product Code	Fig. No.
30	6.6	**EXL**	–	375	–	C-8	3.3x1.3	2900	44.5	25	1000	GZ9.5	24	M	**11478**	–
30	10.8	**DZA**	–	800	BDTH	C-6	3.8x1.3	3100	51	27	400	G5.3	24	M	**37346**	4
50	12	**BRL**	**A1/220**	1400	BDTH	C-6	3.3x1.6	3400	44	30	50	G6.35	100	M	**18234**	1
100	12	**FCR**	**A1/215**	2800	BDTH	C-6 Oval	5.1x3.8	3300	44	30	50	GY6.35	100	M	**14876**	1
100	12	**FDT**	**A1/261**	2900	BDTH	C-6 Oval	5.8x3.8	3300	54	27	50	GZ9.5	24	M	**35321**	8
120	6.6	**EVV**	–	3150	–	C-6 Oval	6.4x3	3200	64	39	500	GZ9.5	24	M	**10099**	–
150	6.6	**EWR**	–	4100	–	C-6 Oval	6.4x.4.1	3200	64	39	500	GZ9.5	24	M	**11427**	–
150	15	**BRJ/EVB**	**A1/234**	5000	BDTH	C-6	4.8x3.0	3400	44	30	50	G6.35	100	M	**18235**	1
150	24	**DZE/FDS**	**A1/262**	4500	BDTH	C-6 Oval	6.4x3.8	3250	68	33	100	GZ9.5	24	M	**37695**	8
150	24	**FCS**	**A1/216**	4500	BDTH	C-6 Oval	6.4x3.8	3300	51	30	50	G6.35	100	M	**13598**	1
175	24	**EML**	–	5000	BDTH	C-6	5.3x4.8	3200	54	27	125	G5.3	24	M	**42612**	3
250	24	**EHJ**	**A1/223**	8000	BDTH	C-6 Oval	7.6x3.8	3400	57	33	50	G6.35	100	M	**14874**	1
275	24	**FNT**	–	10000	BDTH	C-6 Oval	3.5x7.1	3400	57	33	50	G6.35	100	M	**18241**	1
300	24	**FLW**	–	10200	BDTH	C-6 Oval	8.6x5.8	3500	55	33	50	GY6.35*	20	M	**19886**	2
400	36	**EVD**	**A1/239**	16000	BDTH	C-6 Oval	9.4x4.7	3200	60	36	50	GY6.35	25	M	**18238**	1
400	36	–	**A1/270**	14500	BDTH	CC	9x4.6	–	57	36	150	GY6.35	100	M	**30888**	7
500	230	–	**HX501**	11500	BDTH	–	–	3050	60	46	300	GX9.5	24	M	**35484**	5
600	120	**DYS**	**A1/264**	17000	BDTH	CC-6	12.7x6.4	3200	64	37	75	GZ9.5	24	CM	**32955**	9
600	120	**FFJ**	–	17000	–	CC-8	–	3250	–	–	85	R7S	24	–	**29592**	–
650	230	**DYR**	**A1/233**	16500	Any	2CC-8	11.4x11.4	3200	64	37	50	GZ9.5	24	CMN	**33248**	10
650	240	**DYR**	**A1/233**	16500	Any	2CC-8	11.4x11.4	3200	64	37	50	GZ9.5	24	CM	**33250**	10
800	120	–	**HX185**	19000	BDTH	–	–	3050	100	53	300	GX9.5	24	M	**32714**	6
800	230	–	**HX185**	19000	BDTH	–	–	3050	100	53	300	GX9.5	24	M	**30949**	6
800	240	–	**HX185**	19000	BDTH	–	–	3050	100	53	300	GX9.5	24	M	**35232**	6
1000	120	**BRH**	–	30000	–	CC-8	–	3350	–	–	60	R7S	24	–	**29604**	–

* Ceramic

A1 Class Projector Bulbs

150	220/230	**A1/248**	3000	BDTH	MP	–	–	62	40	50	G6.35	50	MT	**30584**	11
150	240	**A1/248**	3000	BDTH	MP	–	–	62	40	50	G6.35	50	MT	**30585**	11
300	220/230	**A1/249**	7200	BDTH	MP	–	–	62	40	50	G6.35	50	MNT	**30587**	11
300	240	**A1/249**	7200	BDTH	MP	–	–	62	40	50	G6.35	50	MNT	**30588**	11
500	220/230	**A1/244**	13000	BDTH	MP	–	–	75	36.5	75	GY9.5	24	MN	**39643**	12
500	240	**A1/244**	13000	BDTH	MP	–	–	75	36.5	75	GY9.5	24	MN	**39644**	12
650	240	**A1/247**	17750	BDTH	MP	–	–	75	36.5	75	GY9.5	24	MP	**39650**	12
800	220/230	**A1/245**	21500	BDTH	MP	–	–	87	44.5	75	GY9.5	24	MP	**39648**	12
800	240	**A1/245**	21500	BDTH	MP	–	–	87	44.5	75	GY9.5	24	MP	**39649**	12

G17q cap

500	240	–	**A1/241**	–	BDTH	BP	–	3200	83	40	50	G17q	24	MNSTQ	**39727**	15
500	120	**CBA**	–	–	BDTH	BP	–	3200	92	44	50	G17q	24	MNT	**36117**	13
500	220	**EPS**	**A1/268**	–	BDTH	MP	–	3250	94	40	50	G17q	24	MNS	**39728**	14
500	240	**EPS**	**A1/268**	–	BDTH	MP	–	3250	94	40	50	G17q	24	MNS	**39729**	14

Single-ended Tungsten Halogen Lamps

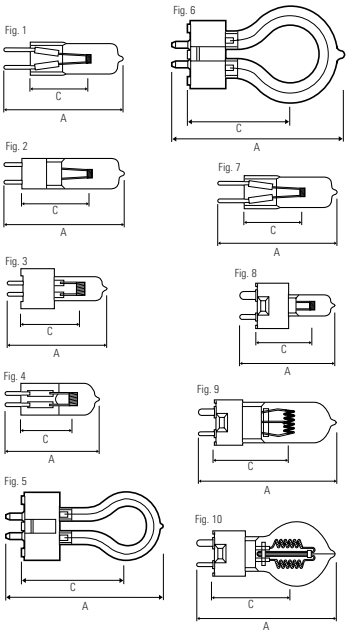
Low Voltage single-ended capsule

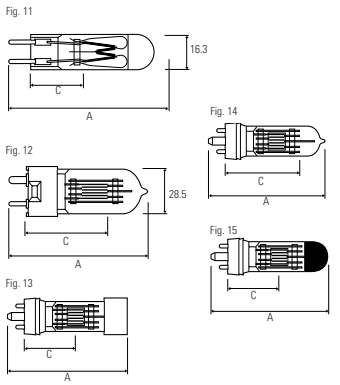
Watts	Volts	LIF Code	A Length mm	B Diameter mm	C LCL mm	Average Lumens	Colour Temp. K	Cap	Filament	Rated Average Life Hours	Pack Quantity	Product Code	Fig. No.
10	6	**M29/ESA**	30	10	19.5	200	3200	G4	Trans	100	20	**34720**	16
20	6	**M30/ESB**	30	10	19.5	440	3200	G4	Trans	100	20	**34718**	16
20	12	**M35**	30	10	19.5	400	3200	G4	Trans	250	20	**34714**	16
50	12	**M32**	44	12	30	850	3000	G6.35	Trans	3000	20	**34702**	17
100	12	**M28/EVA**	44	12	30	2350	3000	G6.35	Trans	2000	20	**34676**	18
250	24	**M33**	55	13.5	33	8400	3000	G6.35	Trans	300	100	**34768**	18

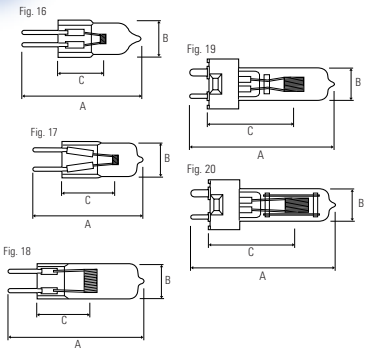
Mains Voltage single-ended capsule

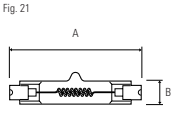
300	120	**M38**	80	28.5	45.5	5500	2900	GY9.5	CC	2000	24	**39786**	19
300	220/230	**M38**	80	28.5	45.5	5000	2900	GY9.5	CC	2000	24	**39785**	19
300	240/250	**M38**	80	28.5	45.5	5000	2900	GY9.5	CC	2000	24	**39784**	19
500	220/230	**M40**	85	30	45.5	8500	2900	GY9.5	SC	2000	24	**39621**	20
500	240/250	**M40**	85	30	45.5	8500	2900	GY9.5	SC	2000	24	**39622**	20

Watts	Volts	ANSI Code	LIF Code	Primary Application	Rated Average Life Hours	Filament	A Length mm	B Diam. mm	Approx. Colour Temp. K	Pack Quantity	Notes	Product Code	Fig. No.
Double-ended lamps with R7s caps													
200	20	**DDN**	–	Microfilm	–	CC-8	60.1	13.5	3150	24	M	**34570**	21
375	30	**DWZ**	**A1/226**	Overhead projector	1000	CC-8	80.9	10	3000	24	M	**29578**	21
420	120	**FAL**	**A1/227**	Overhead projector	75	CC-8	66.5	13.5	3200	24	M	**29581**	21









Entertainment

Specialist Projector

Multi-Mirror™ Quartzline™ Projection lamps

MR-16 Faceted Dichroic Reflector

Watts	Volts	ANSI Code	LIF Code	Primary Application	Rated Average Life Hours	Focal Distance	Filament	A Length mm	B Diam. mm	Approx. Colour Temp. K	Cap	Pack Quantity	Notes	Product Code	Fig. No.
25	13.8	**FHX**	–	Microfilm	250	110	CC-6	44.45	50.67	3200	GX5.3	20	MV	**47914**	1
30	10.8	**EKZ**	–	16mm projection	200	40	C-6	44.45	50.67	3100	GX5.3	20	MV	**36902**	1
42	10.8	**EPT**	–	Fibre optics	8000	40	C-6	44.45	50.67	2900	GX5.3	20	MV	**41729**	1
50	12	**ENL**	–	Fibre optics*	4000	40	C-6	44.45	50.67	3050	GX5.3	20	MV	**25475**	1
50	13.8	**EPZ**	–	Microfilm	1000	110	CC-6	44.45	50.67	3150	GX5.3	20	MV	**43948**	1
50	13.8	**FML**	–	Microfilm	1000	215	CC-6	44.45	50.67	3150	GX5.3	20	MV	**14887**	1
50	13.8	**DJT**	–	Microfilm	1000	155	CC-6	44.45	50.67	3150	GX5.3	20	MV	**44854**	1
50	8	**EFM**	**A1/229**	8mm projection	50	32	C-6	44.45	50.67	3300	GZ6.35	20	MV	**41251**	2
75	12	**EFN**	**A1/230**	8mm projection	50	32	CC-6	44.45	50.67	3350	GZ6.35	20	MV	**41252**	2
80	19	**ENW/ENC**	–	8mm projection	200	45	CC-6	44.45	50.67	3200	GX5.3	10	MV	**40248**	1
80	19	**DDM**	–	Slide projection	50	155	CC-6	44.45	50.67	3350	GX5.3	20	MV	**43206**	1
80	21	**DDS**	–	Microfilm	1000	165	CC-6	44.45	50.67	3125	GX5.3	20	MV	**43988**	1
85	13.8	**DED**	–	Microfilm	1000	165	CC-6	44.45	50.67	3150	GX5.3	20	MV	**43950**	1
90	14.5	**EPV**	–	Microfilm	500	155	CC-6	44.45	50.67	3150	GX5.3	20	MV	**41882**	1
90	14.5	**EPX**	–	Microfilm	500	165	CC-6	44.45	50.67	3150	GX5.3	20	MV	**42614**	1
100	12	**EFP**	**A1/231**	8mm projection	50	32	CC-6	44.45	50.67	3350	GZ6.35	20	MV	**41253**	2
150	15	**EFR**	**A1/232**	8mm projection	50	32	CC-6	44.45	50.67	3350	GZ6.35	20	MV	**41254**	2
150	20	**DDL**	–	Microfilm	500	200	CC-6	44.45	50.67	3150	GX5.3	20	MV	**43537**	1
150	21	**ELD/EJN**	–	Microfilm	40	165	CC-6	44.45	50.67	3350	GX5.3	20	MV	**38306**	1
150	21	**EJM**	–	8mm projection	40	40	CC-6	44.45	50.67	3350	GX5.3	10	MV	**29151**	1
150	21	**EKE**	–	8mm projection	200	45	CC-6	44.45	50.67	3250	GX5.3	20	MV	**35200**	1
150	120	**ESD**	–	Enlarger, projection	12	45	CC-8	44.45	50.67	3350	GY5.3	20	MV	**43756**	3
150	120	**EZK**	–	Camera light	200	–	CC-8	44.45	50.67	3200	GY5.3	20	MV	**15477**	3
200	24	**EKX**	–	Microfilm	25	145	CC-6	44.45	50.67	3400	GX5.3	20	MV	**36899**	1
200	24	**EJL**	**A1/252**	16mm, Colour printer	50	32	CC-6	44.45	50.67	3400	GX5.3	20	MV	**29150**	1
200	24	**EWF**	–	Overhead projection	50	300	CC-8	44.45	50.67	3300	GX5.3	20	MV	**11132**	3
250	24	**ELC**	**A1/259**	16mm, Colour printer	50	30	CC-6	44.45	50.67	3400	GX5.3	20	MV	**37462**	1
250	120	**ENH**	–	Slide projection	175	155	CC-8	44.45	50.67	3250	GY5.3	20	MV	**38686**	3
200	82	**EYA**	–	Enlarger	50	–	CC-8	44.45	50.67	3300	GY5.3	20	MV	**13152**	3
250	82	**EVW**	–	Overhead projection	50	300	CC-8	44.45	50.67	3300	GY5.3	20	MV	**11110**	3
250	120	**EXX**	–	Camera light	25	–	CC-8	44.45	50.67	3300	GY5.3	20	MV	**11750**	3
300	120	**ELH**	–	Slide projection	35	155	CC-8	44.45	50.67	3350	GY5.3	10	MV	**38476**	1
300	120	**ENG**	–	Slide projection	15	155	CC-8	44.45	50.67	3450	GY5.3	10	MV	**38685**	3
340	36	**ERV**	–	Overhead projection	75	300	CC-8	44.45	50.67	3300	GX5.3	20	MV	**41874**	3
360	100	**EPW**	–	Overhead projection	75	300	CC-6	44.45	50.67	3250	GY5.3	20	MV	**41702**	3
360	82	**ENX**	–	Overhead projection	75	300	CC-8	44.45	50.67	3300	GY5.3	20	MV	**41705**	3
410	82	**FXL**	–	Overhead projection	50	300	CC-8	44.45	50.67	3300	GY5.3	20	MV	**21613**	3

* Display lighting

Fig. 1

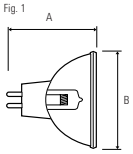


Fig. 2

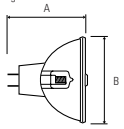
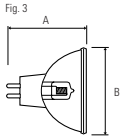


Fig. 3



Watts	Volts	ANSI Code	Primary Application	Rated Average Life Hours	Focal Distance	Filament	A Length mm	B Diam. mm	Approx. Colour Temp. K	Cap	Pack Quantity	Notes	Product Code	Fig. No.

MR-13 Faceted Dichroic Reflector

250	82	**EXY**	Slide projection	200	150	CC-8	44.4	42.4	3200	GX5.3	10	MV	**12097**	3
225	68	**EZF/EZJ**	Colour printer	500	–	CC-8	44.4	42.4		GX5.3	10	MV	**15832**	3
300	82	**EXR**	Slide projection	35	150	CC-8	44.4	42.4	3350	GX5.3	10	MV	**12092**	3
300	82	**EXW**	Slide projection	15	150	CC-8	44.4	42.4	3450	GX5.3	10	MV	**12095**	3
300	82	**FHS**	Slide projection	70	150	CC-8	44.4	42.4	3300	GX5.3	10	MV	**47614**	3

MR-11 Faceted Dichroic Reflector

28	12	**FLS**	Microfilm	1000	216	CC-6	40	35.3	3000	GZ4	10	MV	**30894**	1
28	13.8	**FLT**	Microfilm	500	76 or 175	CC-6	40	35.3	3050	GZ4	10	MV	**31964**	1

MR-16 Dichroic Reflector

80	19	**EJY**	Fibre optics	25	40	CC-6	44.45	50.67	3400	GX5.3	20	MV	**32886**	1
80	30	**ELB**	8mm projection	18	32	CC-6	44.45	50.67	3400	GX5.3	20	MV	**37412**	1
150	21	**EJA**	Fibre optics	40	28	CC-6	44.45	50.67	3350	GX5.3	20	MV	**32882**	1
150	21	**EJV**	8mm, printer	40	45	CC-6	44.45	50.67	3350	GX5.3	20	MV	**32831**	1

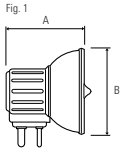
Entertainment

Specialist Projector

G7.9 Vented Cap Reflector Quartzline™ Lamps

MR-16 Dichroic Reflector

Fig. 1



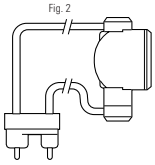
Watts	Volts	ANSI Code	LIF Code	Primary Application	Rated Average Life Hours	Typical Working Distance	Operating Position	Filament	A Length mm	B Diam. mm	Approx. Colour Temp. K	Cap	Pack Qty	Product Code	Fig. No.
150	21	**DNF**	**A1/266**	8mm projection	25	70	Horiz	CC-6	45	50	3400	GX7.9	24	**39742**	1

MR-14 Dichroic Reflector

50	16	**ELS/ELR**	–	Microfilm	650	120	BDTH	CC-6	36	44.4	3100	GX7.9	24	**41885**	1
250	24	**EMM/EKS**	**A1/258**	16mm projection	50	67	BDTH	CC-6	42.2	44.4	3400	GX7.9	24	**40017**	1

High Intensity Arc

Fig. 2



Watts	Volts	ANSI Code	Description	Bulb	Cap	Typical Working Distance	Rated Average Life Hours	Approx. Colour Temp. K	Pack Qty	Product Code	Fig. No.
300	35	**EZG**	Gemini 300 (EZG)	Quartz Arc Tube in 50mm dichroic reflector	Special 2-pin polarized plug	37	75	6000	4	**11134**	2
300	37.5	**EZM**	Marc-300/16 (EZM)	Quartz Arc Tube in 76mm dichroic reflector	Special 2-pin polarized plug	52	25	5500	4	**29469**	2
350	45	**EZT**	Marc-350/16T (EZT)	Quartz Arc Tube in 76mm dichroic reflector	Special 2-pin polarized plug	52	50	5000	4	**39936**	2

Gemini and Marc lamps should be operated with the plane of the reflector vertical.
These lamps should not be operated for periods of less than three minutes since short operating cycles reduce life and degrade performance.

Discharge Lamps

High efficiency artificial light

CSI

- *Cold start and hot restrike versions*
- *Relatively short arc gap & single-ended construction for smaller and lighter fittings*

MGM Grand, Las Vegas, Discharge lighting being used in one of the top Entertainment resorts.

Applications:

TV and film studios, discos architectural applications,

GE Metal Halide lamps can provide more light than 3 Tungsten Halogen lamps of the same rating. That means one third the power consumption and one third the number of fitting to transport and aim, less heat whilst working.

ConstantColor™ CMH lamps
represent the latest advance in discharge lighting technology for use in a wide range of stage & studio applications.

Compact Source Special (CSS) Discharge Lamps
are specially developed for disco and fibre optics applications. Life may be extended if fan or forced cooling is used

The Compact Iodide Daylight (CID) Discharge Lamps
with a colour temperature of 5500K provide excellent simulation of daylight. They are dimmable to 50% of peak lumens.

The Compact Source Iodide (CSI) Discharge Lamps
offer all the advantages of CID lamps but operate at warmer colour temperature of 4000K. This allows the lamps to be readily blended with Tungsten Halogen Lamps and to preserve existing investment in lamps and equipment.

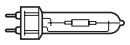
Entertainment

Discharge Lamps

Ceramic Metal Halide lamps for superior colour control and operating efficiencies
Metal halide lamps operating on metal halide high pressure soduim (HPS) gear with a metal halide ignitor

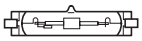
Arcstream™ ConstantColor™ CMH
Single Ended 'Mini's'

Watts	Colour	Length mm	Product Description	CCT K	CRI Ra	Initial Lumens	Cap	Rated Average Life hours	Pack Qty.	Product Code
20	WDL	81	**CMH20/TC/UVC/U/830/G8.5**	3000	80+	1650	G8.5	6000	12	**92079**
35	WDL	81	**CMH35/TC/UVC/U/830/G8.5**	3000	80+	3400	G8.5	9000	12	**38697**
70	WDL	81	**CMH70/TC/UVC/U/830/G8.5**	3000	80+	6200	G8.5	9000	12	**38700**



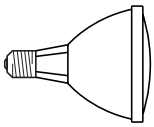
Single Ended

35	WDL	76	**CMH35/T/UVC/U/830/G12**	3000	80+	3400	G12	9000	12	**38696**
70	WDL	88	**CMH70/T/UVC/U/830/G12**	3000	80+	6400	G12	12000	12	**36844**
70	NDL	88	**CMH70/T/UVC/U/942/G12**	4200	90+	6000	G12	12000	12	**38701**
150	WDL	98	**CMH150/T/UVC/U/830/G12**	3000	80+	14000	G12	12000	12	**36863**
150	NDL	98	**CMH150/T/UVC/U/942/G12**	4200	90+	12000	G12	12000	12	**38694**



Double Ended

70	WDL	118	**CMH70/TD/UVC/830/RX7s**	3000	80+	7000	RX7s	15000	12	**36910**
70	NDL	118	**CMH70/TD/UVC/942/RX7s**	4200	90+	6200	RX7s	15000	12	**38698**
150	WDL	135	**CMH150/TD/UVC/830/RX7s-24**	3000	80+	14500	RX7s-24	15000	12	**36912**
150	NDL	135	**CMH150/TD/UVC/942/RX7s-24**	4200	90+	12500	RX7s-24	15000	12	**38692**

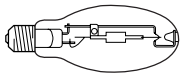


PAR 20

35	WDL	81.2	**CMH35/PAR20/UVC/830/E27/SP**	3000	80+	2100	E27	9000	6	**41883**
35	WDL	81.2	**CMH35/PAR20/UVC/830/E27/FL**	3000	80+	2100	E27	9000	6	**41884**

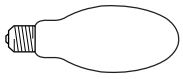
PAR 30

35	WDL	120	**CMH35/PAR30/UVC/830/E27/SP**	3000	80+	2400	E27	9000	6	**41886**
35	WDL	120	**CMH35/PAR30/UVC/830/E27/FL**	3000	80+	2400	E27	9000	6	**41887**
70	WDL	120	**CMH70/PAR30/UVC/830/E27/SP**	3000	80+	4700	E27	9000	6	**41621**
70	WDL	120	**CMH70/PAR30/UVC/830/E27/FL**	3000	80+	4700	E27	9000	6	**41620**



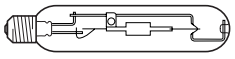
Elliptical Clear

70	WDL	138	**CMH70/E/UVC/U/830/E27/C**	3000	80+	6300	E27	10000	12	**46189**
100	WDL	138	**CMH100/E/UVC/U/830/E27/C**	3000	80+	9200	E27	10000	12	**46191**



Elliptical Diffuse

70	WDL	138	**CMH70/E/UVC/U/830/E27/D**	3000	80+	6000	E27	10000	12	**46187**
100	WDL	138	**CMH100/E/UVC/U/830/E27/D**	3000	80+	8200	E27	10000	12	**46194**



Tubular Clear

70	WDL	154	**CMH70/TT/UVC/830/E27**	3000	80+	6400	E27	12000	6	**38752**
150	WDL	209	**CMH150/TT/UVC/830/E40**	3000	80+	14000	E40	12000	6	**38749**

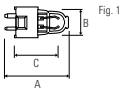
Entertainment

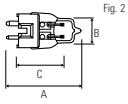
Discharge Lamps

CSS

Base: GY9.5 - Burning position: BDH

Watts	Volts	Order Code	Approx. Initial Lumens	Colour Temp. K	Colour Rendering Index Ra	A Length mm	B Diameter mm	C LCL mm	Rated Average Life Hours	Pack Quantity	Product Code	Fig. No.
140	85	CSS150/850/GY9.5	10000	5000	80	48	22	30	1000	10	**34813**	1
575	95	CSS575/855/GY9.5	40250	5500	85	94	22	52	500	10	**34822**	2

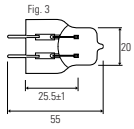




CSI

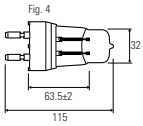
Special bipin base (2 pin 9mm) - Burning position: VBD± 90°

Watts	Volts	Code Ref.	Lumens 100 hrs	Lumen Maintenance	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
400	100	99-0201 CSI	32000	85% at 500 hrs	4000±400	80	500	1	**30555**	3



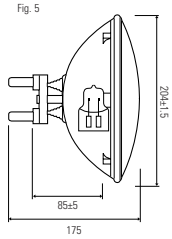
G22 base (medium bipost) - Burning position: VBD± 90°

Watts	Volts	Code Ref.	Lumens 100 hrs	Lumen Maintenance	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
1000	77	99-0221 CSI	90000	85% at 500 hrs	4000±400	80	500	1	**30558**	4



Watts	Volts	Code Ref.	Axial Intensity cd.	Angle 1/2 Peak	Angle 1/10 Peak	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
G38 base (mogul bipost) - Burning position: HOR± 90°											
1000	77	99-1222 CSI	1350000	6°	18°	3800±500	80	3500	1	**29333**	5
1000*	77	99-1422 CSI	1350000	6°	18°	3800±500	80	3500	1	**29336**	5

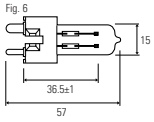
* Hot Restrike



CID

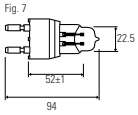
Special Bipin base - Burning position: VBD± 90°

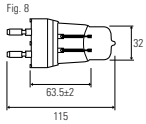
Watts	Volts	Code Ref.	Lumens 100 hrs	Lumen Maintenance	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
200	70	99-0211 CID	14000	90% at 150 hrs	5500±400	85	150	1	**30560**	6



G22 base (medium bipost) - Burning position: VBD± 90°

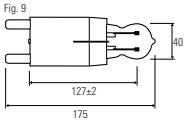
Watts	Volts	Code Ref.	Lumens 100 hrs	Lumen Maintenance	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
575	95	99-0415 CID	40250	90% at 500 hrs	5500±400	85	500	1	**30563**	7
1000	77	99-0222 CID	70000	90% at 500 hrs	5500±400	85	500	1	**30561**	8



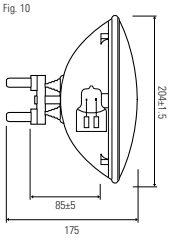


G38 base (mogul bipost) - Burning position: VBD± 90°

Watts	Volts	Code Ref.	Lumens 100 hrs	Lumen Maintenance	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
2500*	100	99-0431 CID	200000	90% at 350 hrs	5500±400	85	350	1	**30567**	9



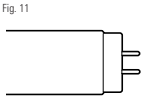
Watts	Volts	Code Ref.	Axial Intensity cd.	Angle 1/2 Peak	Angle 1/10 Peak	Colour Temp. K	Colour Rendering Index Ra	Average Life Hours	Pack Quantity	Product Code	Fig. No.
G38 base (mogul bipost) - Burning position: HOR± 90°											
1000	77	99-1225 CID	850000	8°	20°	5500±400	85	1500	1	**30360**	10
1000*	77	99-1425 CID	850000	8°	20°	5500±400	85	1000	1	**30371**	10
1200*	100	99-1435 CID	820000	9°	18°	5500±400	85	1000	1	**30372**	10

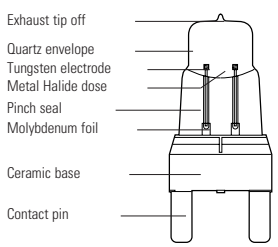


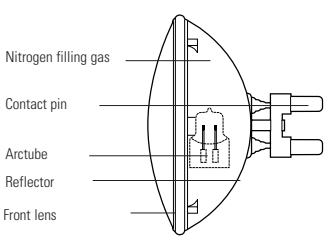
Fluorescent Lamp

Watts	Nominal Length mm	Order Code	Description	Rated Average Life Hours	Pack Quantity	Product Code	Fig. No.
Blacklight Blue (produce long wave ultra-violet light) T12							
20	600	**F20T12/BLB**	Blacklight Blue	9000	6	**34747**	11
40	1200	**F40BLB**	Blacklight Blue	20000	6	**25618**	11

* Hot Restrike







Entertainment Lamps

CP Range of Lamps for Fresnel and Spotlight Fittings

As the result of extensive and sustained development work, much of it original, GE are able to offer a comprehensive range of lamps of quartz construction, operating on the tungsten halogen principle for all Television Studio, 'motion picture', and Theatre lighting purposes.

GE has been strongly supported by the television and film industries in its decision to discontinue glass lamps for studio lighting purposes. This is because the industry has appreciated the financial advantages of quartz halogen lamps, their reliability and virtually constant colour temperature. The increase in the use of the lamps we now manufacture is due to the GE policy of exploiting the important advantages of compact size offered by quartz halogen construction. As a result GE are able to supply quartz halogen lamps for use in Fresnel and spotlight fittings from 300 watts to 10,000 watts. These lamps employ a wide range of commonly accepted bases. This gives fittings manufacturers a comprehensive range of compact lamps and permits the construction of smaller, lighter and more efficient luminaires.

'T' Class Lamps for Theatre Spotlight Fittings

With this group of lamps GE are continuing their policy of developing quartz halogen lamps.These lamps operate at a lower colour temperature than the CP range. An average life of a remarkable 750 hours is achieved for most of the GE range. Similar cost savings to those offered by quartz halogen CP lamps are now presented by the quartz halogen 'T' range.

Typical Working Distance

For Multi-Mirror™ and other reflector lamps and MARC™ lamps, the Working Distance shown is the distance from the front surface of the reflector rim to the film plane, in the optical system for which the lamp was first designed. In most cases, it provides a uniform plane of light for the intended aperture.

Operating Temperature of Tungsten Halogen Studio Lamps

The following maximum and minimum temperatures are suggested for optimum life. Operation outside these figures will not necessarily cause immediate failure but will affect life adversely to an increasing extent.

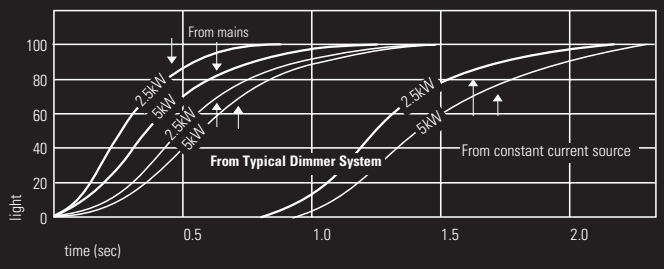
Seal - 450°C maximum. Above this figure the sealing foil oxidises at a rate increasing with temperature and is frequently the cause of short life due to seal failure.

Bulb - 250° - 800°C. Outside this range the halogen cycle becomes less efficient and blackening may occur. Temperatures above 1200°C will cause the bulb to soften.

Pins - 350°C maximum. Above this figure the plating on the pins may lose adhesion and the contact will deteriorate. Such deterioration may form local hot spots which rapidly worsen and may result in arcing and irrepairable damage to both lamp and holder. Should signs of this be evident on removal of a failed lamp, it is important that a good contact is restored by replacing the lampholder before the next lamp is fitted. Otherwise the new lamp will rapidly fail in a similar manner.

Fusing of Tungsten Halogen Studio and Theatre Lamps

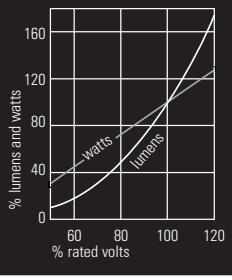
A lamp normally fails at end of life by fusing of the filament. Often an arc then forms and as there is little resistance to limit the current this rises to a very high value which if maintained can result in a serious overload on the envelope and seals. This might result in the lamp shattering. A quick acting high breaking capacity fuse must be connected in the supply line in all applications. Suitable types are given in IEC 60269, IEC 60127 or IEC 60241.



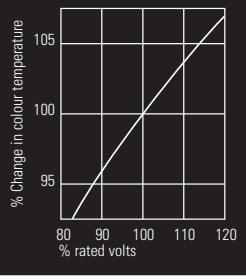
Fusing of Tungsten Halogen Studio and Theatre Lamps

Lamp power (watts)	Fuse (rated current) (amps) 100-115V	115-130V	220-250V
500	6	6	4
650	10	6	4
1000	16 (15 UK)	10	6
1500	20	16 (15 UK)	10
2000	25 (30 UK)	25 (30 UK)	10
2500	35 (30 UK)	25 (30 UK)	16 (15 UK)
5000	63 (60 UK)	50	25 (30 UK)
10000	125	100	50

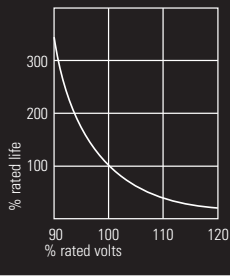
Variation of light output and wattage with applied voltage for a typical studio lamp



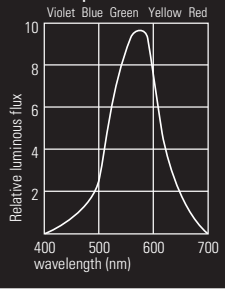
Colour temperature variation with voltage for typical studio lamp



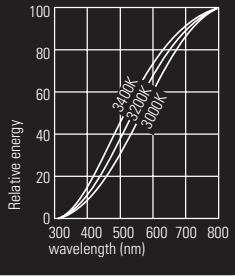
Typical life variation against operation voltage



Spectral distribution of luminous flux (lumens) for typical theatre and studio lamp



Total spectral energy distribution of typical studio lamp



Entertainment Lamps

Discharge lamps

Even with all the advances which have been made in tungsten halogen technology in recent years there are still occasions, particularly whilst working on location, when handling the number of fittings required to give an acceptable illumination level can be a logistical headache.
One GE metal halide discharge lamp can provide more light than three tungsten halogen lamps of the same rating. That means one third the power consumption and one third the number of fittings to transport and aim. The potential for major cost savings is clear. GE Lighting has led the way in adapting discharge lamps for use in the performing arts. The company was the first and for many years the only manufacturer to offer metal halide lamps in the compact, single ended capsule format. The minimal dimensions of these lamps can be incorporated into fittings which are much smaller than corresponding luminaires using double ended lamps of the same power. With a near point light source excellent optical control is possible.

Compact iodide lamps are also available in a sealed beam format. With the light source carefully positioned in the reflector, optimum optical performance is guaranteed.
The nitrogen filling gas in the outer bulb prevents oxygen attacking the seal of the inner capsule and so increases the life of the lamp dramatically.
All CID discharge studio and stage lamps are dimmable to 50% of peak lumens and the great majority are available in hot re-strike versions for applications where frequent changes in lighting levels are required. All lamps will re-strike within ten minutes of switch off.

Operating Temperature of Discharge Studio Lamps

The following maximum and minimum temperatures are suggested for optimum life. Operation outside of these figures will not necessarily cause immediate failure but will effect life adversely to an increasing extent.

Cap/bulb interface capsule lamps - 450° maximum

Above this figure the sealing foil oxidises at a rate increasing with temperature and is frequently the cause of short life due to seal failure.

Bulb

capsule lamps 700° - 1000°C
sealed beam lamps 150° - 400°C
Above 1000°C, quartz may devitrify, which will cause the arc tube to leak, loss of dose will cause the arc tube to operate below the minimum temperature, the metal halides will not vaporise as required, and lamp performance will be impaired.

Pins - 350°C maximum

Above this figure the plating on the pins may lose adhesion and the contact will deteriorate. Such deterioration may form local hot spots which rapidly worsen and may result in arcing and irreparable damage to both lamp and holder. Should signs of this be evident on removal of a failed lamp, it is important that a good contact is restored by replacing the lampholder before the next lamp is fitted, otherwise the new lamp will rapidly fail in a similar manner.

N.B. For sealed beam lamps - to ensure that the above conditions are met, it is important that the lamp does not operate above 400°C even in an enclosed fitting.

Fusing of Discharge Studio and Theatre Lamps

A quick acting high breaking capacity fuse must be connected in the supply line in all applications. Suitable types are given in IEC 60269, IEC60127 or IEC60241.

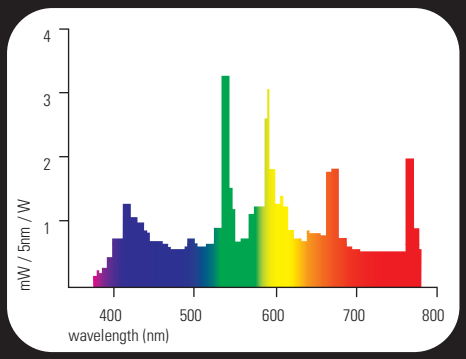
Lamp quality standards

GE Lighting's lamps for entertainment lighting to comply with IEC 60127, IEC 60241 or IEC 60269.

Further information

The GE Lighting Entertainment lamps catalogue provides more information on the product listed, including the operating cautions and health and safety guide.
The local GE Lighting Sales office will be pleased to provide you with a copy of this catalogue at your request.

Spectral distribution of luminous flux (lumens) for CSI discharge lamps



Spectral distribution of luminous flux (lumens) for CID discharge lamps