

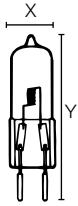
# HALOGEN



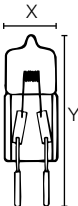
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Axial



Transverse

Order code		V	W	Cap	Filament	X mm	Y mm	Life hrs.
<b>CAPSULES</b>								
M9-6V		6V	5W	G4	Axial	10	31	2000
M42		6V	10W	G4	Axial	10	31	2000
M29	ESA	6V	10W	G4	Transverse	10	31	100
M326		6V	10W	G4	Transverse	10	31	2000
M30	ESB	6V	20W	G4	Transverse	10	31	100
M34	FHE	6V	20W	G4	Transverse	10	31	2000
M116		6V	35W	GY6.35	Axial	10.5	44	2000
M9		12V	5W	G4	Transverse	10	31	2000
M9F	FROSTED	12V	5W	G4	Transverse	10	31	2000
M309		12V	5W	G4	Transverse	10	31	2000
M11		12V	10W	G4	Transverse	10	31	2000
M91		12V	10W	G4	Axial	10	31	2000
M91F	FROSTED	12V	10W	G4	Axial	10	31	2000
M47		12V	20W	G4	Transverse	10	31	2000
M35		12V	20W	G4	Transverse	10	31	2000
M86		12V	20W	G4	Axial	10	31	2000
M86F	FROSTED	12V	20W	G4	Axial	10	31	2000
M320		12V	20W	G4	Axial	10	31	2000
M312		12V	20W	GY6.35	Transverse	10.5	44	2000
M76		12V	20W	GY6.35	Axial	10.5	44	2000
M111		12V	35W	G4	Transverse	10.5	44	2000
M153		12V	35W	GY6.35	Transverse	10.5	44	2000
M95		12V	35W	GY6.35	Transverse	10.5	44	2000
M75		12V	35W	GY6.35	Axial	10.5	44	2000
M32		12V	50W	GY6.35	Transverse	10.5	44	2000
M87		12V	50W	GY6.35	Transverse	10.5	44	2000
M74		12V	50W	GY6.35	Axial	10.5	44	2000
M74F	FROSTED	12V	50W	GY6.35	Axial	10.5	44	2000
M313		12V	75W	GY6.35	Transverse	10.5	44	2000
M73		12V	75W	GY6.35	Axial	10.5	44	2000
M154		12V	75W	GY6.35	Axial	10.5	44	2000
M28	EVA	12V	100W	GY6.35	Transverse	10.5	44	2000
M120		12V	100W	GY6.35	Transverse	10.5	44	2000
M180_OS	64458U	12V	90W	GY6.35	Transverse	10.5	44	4000
M180		12V	100W	GY6.35	Axial	10.5	44	2000
M9-24V		24V	5W	G4	Transverse	10	31	2000
M91-24V		24V	10W	G4	Axial	10	31	2000
M88		24V	20W	G4	Transverse	10	31	2000
M89		24V	50W	GY6.35	Axial	10.5	44	2000
M67		24V	100W	GY6.35	Transverse	10.5	44	2000
M90		24V	100W	GY6.35	Axial	10.5	44	2000
M196		24V	150W	GY6.35	Axial	16	50	2000
M33		24V	250W	GY6.35	Transverse	13.5	55	300
M36		24V	250W	GY6.35	Transverse	16	58	2000
M9-28V		28V	5W	G4	Transverse	10	31	2000



Order code	V	W	Cap	Filament	X mm	Y mm	Life hrs.
<b>CAPSULES continued</b>							
M91-28V	28V	10W	G4	Axial	10	31	2000
M86-28V	28V	20W	G4	Axial	10	31	2000

Order code	Manufacturer's code	V	W	Cap	Filament	X mm	Y mm	Life hrs.
<b>CAPSULES - OSRAM HALOSTAR IRC</b>								

IRC capsule lamps have an Infra Red Coating (IRC) that reflects heat back onto the filament of the lamp. A lower wattage filament can then be used to provide the same light output as a regular halogen capsule.

- Energy saving halogen capsule
- Directly replaces standard capsule lamps
- Up to 65% more economical than standard halogen capsule lamps

35w regular halogen capsule = 25w IRC  
 50w regular halogen capsule = 35w IRC  
 75w regular halogen capsule = 50w IRC  
 100w regular halogen capsule = 65w IRC

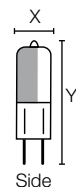
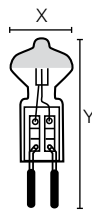
64429IRC	64429IRC	12V	25W	GY6.35	Axial	12	44	4000
M75IRC	64432IRC	12V	35W	GY6.35	Axial	12	44	4000
M74IRC	64440IRC	12V	50W	GY6.35	Axial	12	44	4000
M205IRC	64447IRC	12V	65W	GY6.35	Axial	12	44	4000



Order code	Manufacturer's code	Reflector	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>CAPSULES - OSRAM MINISTAR REFLECTOR</b>									

Halogen capsule lamps with an integral reflector. Available with either an axial or side reflector

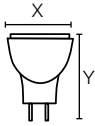
MINI10A	50210	AXIAL	12V	10W	G4	20	12	33	2000
MINI20A-GY6.35	50020	AXIAL	12V	20W	GY6.35	20	16	44	2000
MINI20A	50220	AXIAL	12V	20W	G4	20	12	33	2000
MIN35A	50035	AXIAL	12V	35W	GY6.35	30	16	44	2000
MINI50A	50050	AXIAL	12V	50W	GY6.35	30	16	44	2000
MINI10S	50110	SIDE	12V	10W	G4	35/60	9.5	33	2000
MINI20S	50120	SIDE	12V	20W	G4	35/60	9.5	33	2000



HALOGEN

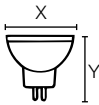
Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC 25MM MR8 CLOSED FRONT</b>								

JM8051		6V	10W	GZ4	9	25	35	2000
JM8231	JM8251	12V	20W	GZ4	10	25	35	2000
JM8232	JM8252	12V	20W	GZ4	21	25	35	2000
JM8253		12V	20W	GZ4	42	25	35	2000
JM8331	JM8351	12V	35W	GZ4	12	25	35	2000
JM8332	JM8352	12V	35W	GZ4	24	25	35	2000
JM8351	JM8331	12V	35W	GZ4	13	25	35	2000
JM8352	JM8332	12V	35W	GZ4	26	25	35	2000
JM8353		12V	35W	GZ4	42	25	35	2000



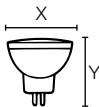
Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM OPEN FRONT</b>								

M64	FTA	12V	12W	GZ4	7	35	37	2000
M52	FTB	12V	20W	GZ4	10	35	37	3500
M51	FTC	12V	20W	GZ4	17	35	37	3500
M62	FTD	12V	20W	GZ4	30	35	37	3500
M65	FTE	12V	35W	GZ4	8	35	37	3500
M66	FTF	12V	35W	GZ4	20	35	37	3500
M199	FTH	12V	35W	GZ4	30	35	37	3500
M173		12V	50W	GZ4	29	35	37	2000



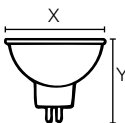
Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM CLOSED FRONT</b>								

M200		12V	10W	GZ4	38	35	37	3000
M264	FTA/CG	12V	12W	GZ4	7	35	37	2000
M252	FTB/CG	12V	20W	GZ4	10	35	37	3000
M251	FTC/CG	12V	20W	GZ4	17	35	37	3000
M262	FTD/CG	12V	20W	GZ4	30	35	37	3000
M221		12V	20W	GZ4	38	35	37	3000
M265	FTE/CG	12V	35W	GZ4	8	35	37	3000
M266	FTF/CG	12V	35W	GZ4	20	35	37	3000
M170	FTH/CG	12V	35W	GZ4	30	35	37	3000
M223	GAX/CG	12V	35W	GZ4	38	35	37	3000



Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM OPEN FRONT</b>								

181012		12V	10W	GX5.3	21	51	45	2000
M68	ESX	12V	20W	GX5.3	12	51	45	2000
M94	BBF	12V	20W	GX5.3	24	51	45	2000
M69	BAB	12V	20W	GX5.3	36	51	45	2000
M190		12V	20W	GX5.3	60	51	45	2000

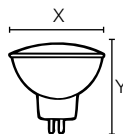


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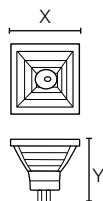


Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM OPEN FRONT - continued</b>								
M71	FRB	12V	35W	GX5.3	12	51	45	2000
M70	FMV	12V	35W	GX5.3	24	51	45	2000
M81	FMW	12V	35W	GX5.3	36	51	45	2000
M324		12V	35W	GX5.3	60	51	45	2000
M49	EXT	12V	50W	GX5.3	12	51	45	2000
M50	EXZ	12V	50W	GX5.3	24	51	45	2000
M109	ENL	12V	50W	GX5.3	32	51	45	2000
M58	EXN	12V	50W	GX5.3	36	51	45	2000
M80	FNV	12V	50W	GX5.3	60	51	45	2000
M60	EYF	12V	75W	GX5.3	12	51	45	2000
M82	EZZ/EYJ	12V	75W	GX5.3	24	51	45	2000
M61	EYZ/EYC	12V	75W	GX5.3	36	51	45	2000
M98		12V	75W	GX5.3	60	51	45	2000

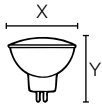
Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC 51MM CLOSED FRONT</b>								
181052		12V	10W	GX5.3	21	51	45	2000
M268	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M294	BBF/CG	12V	20W	GX5.3	24	51	45	2000
M269	BAB/CG	12V	20W	GX5.3	36	51	45	2000
M290		12V	20W	GX5.3	60	51	45	2000
M271	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M270	FMV/CG	12V	35W	GX5.3	24	51	45	2000
M281	FMW/CG	12V	35W	GX5.3	36	51	45	2000
M224		12V	35W	GX5.3	60	51	45	2000
M249	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M250	EXZ/CG	12V	50W	GX5.3	24	51	45	2000
M209	ENL/CG	12V	50W	GX5.3	32	51	45	2000
M258	EXN/CG	12V	50W	GX5.3	36	51	45	2000
M280	FNV/CG	12V	50W	GX5.3	60	51	45	2000
M260	EYF/CG	12V	75W	GX5.3	12	51	45	2000
M282	EZZ/EYJ/CG	12V	75W	GX5.3	24	51	45	2000
M261	EYZ/EYC/CG	12V	75W	GX5.3	36	51	45	2000
M298		12V	75W	GX5.3	60	51	45	2000



Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>SQUARE DICHROIC - CLOSED FRONT</b>							
M290SQ	12V	20W	GX5.3	60	36	45	2000
M224SQ	12V	35W	GX5.3	60	36	45	2000
M280SQ	12V	50W	GX5.3	60	36	45	2000



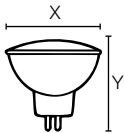
HALOGEN



Order code	Colour	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM COLOURED</b>									
M251A	AMBER	FTC/CG	12V	20W	GZ4	20	35	37	2000
M251B	BLUE	FTC/CG	12V	20W	GZ4	20	35	37	2000
M251G	GREEN	FTC/CG	12V	20W	GZ4	20	35	37	2000
M251R	RED	FTC/CG	12V	20W	GZ4	20	35	37	2000
M251Y	YELLOW	FTC/CG	12V	20W	GZ4	20	35	37	2000

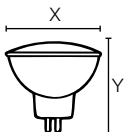
Order code	Colour	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM COLOURED</b>									

M268A	AMBER	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M268B	BLUE	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M268G	GREEN	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M268R	RED	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M268Y	YELLOW	ESX/CG	12V	20W	GX5.3	12	51	45	2000
M271A	AMBER	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M271B	BLUE	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M271G	GREEN	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M271R	RED	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M271Y	YELLOW	FRB/CG	12V	35W	GX5.3	12	51	45	2000
M249A	AMBER	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249B	BLUE	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249G	GREEN	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249PU	PURPLE	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249M	MAGENTA	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249R	RED	EXT/CG	12V	50W	GX5.3	12	51	45	2000
M249Y	YELLOW	EXT/CG	12V	50W	GX5.3	12	51	45	2000



Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM 24V CLOSED FRONT</b>								

181052-24		24V	10W	GX5.3	12	51	45	2000
M268-24	ESX/CG	24V	20W	GX5.3	12	51	45	2000
M269-24	BAB/CG	24V	20W	GX5.3	36	51	45	2000
M290-24		24V	20W	GX5.3	60	51	45	2000
M271-24	FRB/CG	24V	35W	GX5.3	12	51	45	2000
M270-24	FMV/CG	24V	35W	GX5.3	24	51	45	2000
M281-24	FMW/CG	24V	35W	GX5.3	36	51	45	2000
M249-24	EXT/CG	24V	50W	GX5.3	12	51	45	2000
M250-24	EXZ/CG	24V	50W	GX5.3	24	51	45	2000
M258-24	EXN/CG	24V	50W	GX5.3	36	51	45	2000
M261-24	EYC/CG	24V	75W	GX5.3	36	51	45	2000



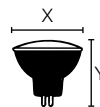


Order code	Description	Colour	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**DICHROIC - 35MM REFLEKTO**

- Halogen reflector lamp with either a black or silver aluminium coated reflector.
- Heat is reduced to the rear of the lamp
- Virtually eliminates stray light from the back of the light source

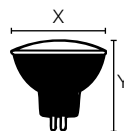
M252BLACK	M252	BLACK	12V	20W	GZ4	12	35	37	1500
M252SILVER	M252	SILVER	12V	20W	GZ4	12	35	37	1500
M221BLACK	M221	BLACK	12V	20W	GZ4	36	35	37	1500
M221SILVER	M221	SILVER	12V	20W	GZ4	36	35	37	1500
M265BLACK	M265	BLACK	12V	35W	GZ4	12	35	37	1500
M265SILVER	M265	SILVER	12V	35W	GZ4	12	35	37	1500
M223BLACK	M223	BLACK	12V	35W	GZ4	36	35	37	1500
M223SILVER	M223	SILVER	12V	35W	GZ4	36	35	37	1500



Order code	Description	Colour	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**DICHROIC - 51MM REFLEKTO**

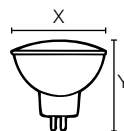
M269BLACK	M269	BLACK	12V	20W	GX5.3	36	51	45	3500
M269SILVER	M269	SILVER	12V	20W	GX5.3	36	51	45	3500
M270BLACK	M270	BLACK	12V	35W	GX5.3	24	51	45	3500
M281BLACK	M281	BLACK	12V	35W	GX5.3	36	51	45	3500
M281SILVER	M281	SILVER	12V	35W	GX5.3	36	51	45	3500
M250BLACK	M250	BLACK	12V	50W	GX5.3	24	51	45	3500
M250SILVER	M250	SILVER	12V	50W	GX5.3	24	51	45	3500
M258BLACK	M258	BLACK	12V	50W	GX5.3	36	51	45	3500
M258SILVER	M258	SILVER	12V	50W	GX5.3	36	51	45	3500



Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**ULTRALIFE DICHROIC - 51MM 10,000 HOURS**

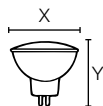
M494	BBF/CG	12V	20W	GX5.3	24	51	45	10000
M469	BAB/CG	12V	20W	GX5.3	36	51	45	10000
M471	FRB/CG	12V	35W	GX5.3	12	51	45	10000
M470	FMV/CG	12V	35W	GX5.3	24	51	45	10000
M481	FMW/CG	12V	35W	GX5.3	36	51	45	10000
M424	FMT/CG	12V	35W	GX5.3	60	51	45	10000
M449	EXT/CG	12V	50W	GX5.3	12	51	45	10000
M450	EXZ/CG	12V	50W	GX5.3	24	51	45	10000
M458	EXN/CG	12V	50W	GX5.3	36	51	45	10000
M480	FNV/CG	12V	50W	GX5.3	60	51	45	10000



HALOGEN

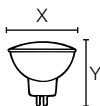


Order code	Colour	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>WHITESTAR DICHOIC - 51MM COOL WHITE 4200K</b>								
181021CW	COOL WHITE	12V	10W	GX5.3	36	51	45	2000
M281CW	COOL WHITE	12V	35W	GX5.3	36	51	45	2000
M249CW	COOL WHITE	12V	50W	GX5.3	12	51	45	2000
M250CW	COOL WHITE	12V	50W	GX5.3	24	51	45	2000
M258CW	COOL WHITE	12V	50W	GX5.3	36	51	45	2000



Order code	Colour	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHOIC - 51MM CLOSED FRONT NEODYMIUM</b>								

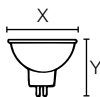
Regular dichroic halogen reflector lamp with a special coating that filters out the green and yellow part of the spectrum. Ideal for use in bakeries, butchers and florists.



M258NEO	NEODYMIUM	12V	50W	GX5.3	36	51	45	2000
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Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHOIC - 51MM OPEN FRONT ALUMINIUM</b>								

Aluminium reflector lamps that direct the heat forward reducing the thermal load in the luminaire.

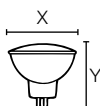


M69A	BAB	12V	20W	GX5.3	36	51	45	3000
M81A	FMW	12V	35W	GX5.3	36	51	45	3000
M58A	EXN	12V	50W	GX5.3	36	51	45	3000

Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHOIC - 51MM CLOSED FRONT ALUMINIUM</b>								

Aluminium reflector lamps direct the heat forward reducing the thermal load in the luminaire.

181012A		12V	10W	GX5.3	21	51	45	3500
M268A	ESX/CG	12V	20W	GX5.3	12	51	45	3500
M294A	BBF/CG	12V	20W	GX5.3	24	51	45	3500
M269A	BAB/CG	12V	20W	GX5.3	36	51	45	3500
M290A		12V	20W	GX5.3	60	51	45	3500
M271A	FRB/CG	12V	35W	GX5.3	12	51	45	3500
M270A	FMV/CG	12V	35W	GX5.3	24	51	45	3500
M281A	FMW/CG	12V	35W	GX5.3	36	51	45	3500
M224A		12V	35W	GX5.3	60	51	45	3500
M249A	EXT/CG	12V	50W	GX5.3	12	51	45	3500
M250A	EXZ/CG	12V	50W	GX5.3	24	51	45	3500
M258A	EXN/CG	12V	50W	GX5.3	36	51	45	3500
M280A	FNV/CG	12V	50W	GX5.3	60	51	45	3500

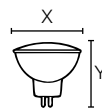




Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM CLOSED FRONT ALUMINIUM</b>								

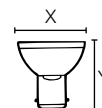
Aluminium reflector lamps that direct the heat forward reducing the thermal load in the luminaire.

M252A	FTB/CG	12V	20W	GZ4	12	35	37	1500
M221A	FTD/CG	12V	20W	GZ4	36	35	37	1500
M265A	FTE/CG	12V	35W	GZ4	12	35	37	1500
M223A		12V	35W	GZ4	36	35	37	1500



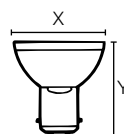
Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM OPEN FRONT SBC</b>								

M54	FST	12V	20W	SBC/BA15D	17	35	42	3500
M63	FSV	12V	20W	SBC/BA15D	30	35	42	3500



Order code		V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM CLOSED FRONT SBC</b>								

M57		12V	50W	SBC/BA15D	13	51	45	2000
M56		12V	50W	SBC/BA15D	26	51	45	2000
M59		12V	50W	SBC/BA15D	38	51	45	2000

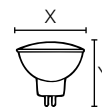


Order code	Reference	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 35MM PERFORMANCE</b>								

- Performance dichroics have a minimum life of 4000 hours.
- Performance dichroics have a constant colour coating ensuring that the colour appearance and light output do not degrade over the life of the lamp.

<b>Manufacturers' references</b>	Osram – Titan (T) GE – ConstantColor (CC)	Philips – Brilliantline Pro (BP) Sylvania – Superia (S)
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M252CC	T,BP	12V	20W	GZ4	10	35	37	4000
M262CC	S,BP	12V	20W	GZ4	30	35	37	4000
M221CC	T	12V	20W	GZ4	38	35	37	4000
M265CC	T,BP	12V	35W	GZ4	10	35	37	4000
M170CC	S,BP	12V	35W	GZ4	30	35	37	4000
M223CC	T	12V	35W	GZ4	38	35	37	4000



HALOGEN



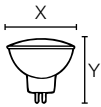
Order code	Reference	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**DICHROIC - 51MM PERFORMANCE**

- Performance dichroics have a minimum life of 4000 hours.
- Performance dichroics have a constant colour coating ensuring that the colour appearance and light output do not degrade over the life of the lamp.

Manufacturers' references	Osram – Titan (T) GE – ConstantColor (CC)	Philips – Brilliantline Pro (BP) Sylvania – Superia (S)
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M268CC	T,S,BP,CC	12V	20W	GX5.3	10	51	45	5000
M294CC	BP	12V	20W	GX5.3	24	51	45	5000
M269CC	T,S,BP,CC	12V	20W	GX5.3	38	51	45	5000
M290CC	T	12V	20W	GX5.3	60	51	45	5000
M271CC	T,S,BP,CC	12V	35W	GX5.3	10	51	45	5000
M270CC	T,BP,CC	12V	35W	GX5.3	24	51	45	5000
M281CC	T,S,BP,CC	12V	35W	GX5.3	38	51	45	5000
M224CC	T,BP	12V	35W	GX5.3	60	51	45	5000
M249CC	T,S,BP,CC	12V	50W	GX5.3	10	51	45	5000
M250CC	T,S,BP,CC	12V	50W	GX5.3	24	51	45	5000
M258CC	T,S,BP,CC	12V	50W	GX5.3	38	51	45	5000
M280CC	T,S,BP,CC	12V	50W	GX5.3	60	51	45	5000
M260CC	CC	12V	71W	GX5.3	15	51	45	4000
M282CC	CC	12V	71W	GX5.3	25	51	45	4000
M261CC	CC	12V	71W	GX5.3	42	51	45	4000



Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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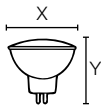
**DICHROIC - 51MM ENERGY SAVER OSRAM IRC**

IRC dichroics have an Infra Red Coating (IRC) that reflects heat back onto the filament of the lamp. A lower wattage filament can then be used to provide the same light output as a regular dichroic lamp.

- Energy saving dichroic lamps
- Directly replace standard dichroic lamps
- Up to 65% more economical than standard dichroic lamps

35w standard dichroic = 25w IRC dichroic
50w standard dichroic = 35w IRC dichroic
75w standard dichroic = 50w IRC dichroic

M268IRC	48860SP	12V	20W	GX5.3	10	51	45	5000
M294IRC	48860FL	12V	20W	GX5.3	24	51	45	5000
M269IRC	48860WFL	12V	20W	GX5.3	36	51	45	5000
M290IRC	48860VWFL	12V	20W	GX5.3	60	51	45	5000
M271IRC	48865SP	12V	35W	GX5.3	10	51	45	5000
M270IRC	48865FL	12V	35W	GX5.3	24	51	45	5000
M281IRC	48865WFL	12V	35W	GX5.3	36	51	45	5000
M224IRC	48865VWFL	12V	35W	GX5.3	60	51	45	5000





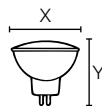
Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM ENERGY SAVER OSRAM IRC - continued</b>								
M249IRC	4887OSP	12V	50W	GX5.3	10	51	45	5000
M250IRC	4887OFL	12V	50W	GX5.3	24	51	45	5000
M258IRC	4887OWFL	12V	50W	GX5.3	36	51	45	5000
M280IRC	48870VWFL	12V	50W	GX5.3	60	51	45	5000

Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>DICHROIC - 51MM ENERGY SAVER PHILIPS MASTERLINE ES</b>								

Masterline ES lamps are the Philips equivalent to Osram IRC halogen reflector lamps.

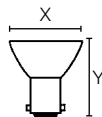
35w standard dichroic = 20w Masterline ES  
 50w standard dichroic = 30w Masterline ES  
 65w standard dichroic = 35w Masterline ES  
 75w standard dichroic = 45w Masterline ES

M668	14578	12V	20W	GX5.3	8	51	45	5000
M669	14579	12V	20W	GX5.3	36	51	45	5000
M608	14580	12V	30W	GX5.3	8	51	45	5000
M636	14582	12V	30W	GX5.3	36	51	45	5000
M660	14583	12V	30W	GX5.3	60	51	45	5000
M624	14581	12V	30W	GX5.3	24	51	45	5000
M616	14584	12V	35W	GX5.3	8	51	45	5000
M670	14585	12V	35W	GX5.3	24	51	45	5000
M681	14586	12V	35W	GX5.3	36	51	45	5000
M625	14587	12V	35W	GX5.3	60	51	45	5000
M649	14588	12V	45W	GX5.3	8	51	45	5000
M650	14589	12V	45W	GX5.3	24	51	45	5000
M658	14590	12V	45W	GX5.3	36	51	45	5000
M680	14591	12V	45W	GX5.3	60	51	45	5000

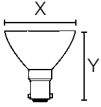


Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>PHILIPS ALUMINIUM REFLECTOR - 37MM CLOSED GLASS</b>								

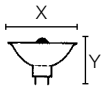
6424	GBA	6V	15W	SBC/BA15D	6	37	41	2000
6433	GBD	12V	20W	SBC/BA15D	6	37	41	2000
6434	GBE	12V	20W	SBC/BA15D	18	37	41	2000
6435FR	GBF	12V	20W	SBC/BA15D	32	37	41	2000
6436FR		12V	35W	SBC/BA15D	40	37	41	2000



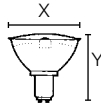
HALOGEN



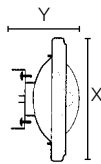
Order code	ANSI code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>PHILIPS ALUMINIUM REFLECTOR - 56MM CLOSED GLASS</b>								
6425	GBB	6V	15W	SBC/BA15D	4	56	60	2000
6426	GBC	6V	15W	SBC/BA15D	14	56	60	2000
6429	GBG	6V	35W	SBC/BA15D	6	56	60	2000
6430	GBH	6V	35W	SBC/BA15D	14	56	60	2000
6465	GBL	12V	50W	SBC/BA15D	6	56	60	2000
6438	GBJ	12V	50W	SBC/BA15D	10	56	60	2000
6439FR	GBK	12V	50W	SBC/BA15D	25	56	60	2000



Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>OSRAM ALUMINIUM REFLECTOR - AR48</b>								
M108	41900SP	12V	20W	GY4	8	48	31	2000
M107	41930SP	24V	20W	GY4	8	48	31	1000



Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>OSRAM ALUMINIUM REFLECTOR - AR70</b>								
M155	41970SP	12V	20W	SBC/BA15D	8	70	47	3000
M156	41970FL	12V	20W	SBC/BA15D	24	70	47	3000
M157	41990SP	12V	50W	SBC/BA15D	8	70	47	3000
M158	41990FL	12V	50W	SBC/BA15D	24	70	47	3000



Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>ALUMINIUM REFLECTOR - AR111</b>								
M163	41830SSP	6V	35W	G53	4	111	67	3000
M351	41832SSP	12V	35W	G53	4	111	67	3000
M353	41832FL	12V	35W	G53	24	111	67	3000
M100	41835SSP	12V	50W	G53	4	111	67	3000
M101	41835SP	12V	50W	G53	8	111	67	3000
M161	41835FL	12V	50W	G53	24	111	67	3000
	41835WFL	12V	50W	G53	45	111	67	3000
M102	41840SP	12V	75W	G53	8	111	67	3000
M162	41840FL	12V	75W	G53	24	111	67	3000
M103	41840WFL	12V	75W	G53	45	111	67	3000
M114	41850SP	12V	100W	G53	8	111	67	3000
M152	41850FL	12V	100W	G53	24	111	67	3000
M191	41850WFL	12V	100W	G53	45	111	67	3000



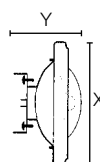
Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>ALUMINIUM REFLECTOR - AR111 ENERGY SAVER OSRAM IRC</b>								

IRC AR111 halogen reflector lamps have an Infra Red Coating (IRC) that reflects heat back onto the filament of the lamp. A lower wattage filament can then be used to provide the same light output as a regular AR111 halogen reflector lamp.

- Energy saving AR111 halogen reflector
- Directly replaces standard AR111 halogen reflector lamps
- Up to 65% more economical than a standard AR111 halogen reflector lamp

50w regular AR111 halogen reflector = 35w IRC  
 75w regular AR111 halogen reflector = 50w IRC  
 100w regular AR111 halogen reflector = 65w IRC

M202IRC_OSR 48832SP	12V	35W	G53	8	111	67	4000
M353IRC_OSR 48832FL	12V	35W	G53	24	111	67	4000
M101IRC_OSR 48835SP	12V	50W	G53	8	111	67	4000
M161IRC_OSR 48835FL	12V	50W	G53	24	111	67	4000
48835WFL	12V	50W	G53	45	111	67	4000
M203IRC_OSR 48837SP	12V	65W	G53	8	111	67	4000
M204IRC_OSR 48837FL	12V	65W	G53	24	111	67	4000
M103IRC_OSR 48837WFL	12V	65W	G53	45	111	67	4000

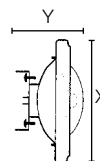


Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>ALUMINIUM REFLECTOR - AR111 ENERGY SAVER PHILIPS MASTERLINE 111</b>								

Masterline 111 is the Philips equivalent to Osram IRC halogen reflector lamps.

50w regular AR111 halogen reflector = 30w Masterline 111  
 75w regular AR111 halogen reflector = 45w Masterline 111  
 100w regular AR111 halogen reflector = 60w Masterline 111

M202IRC_PHI 14736	12V	30W	G53	8	111	67	4000
M353IRC_PHI 14737	12V	30W	G53	24	111	67	4000
M101IRC_PHI 14738	12V	45W	G53	8	111	67	4000
M161IRC_PHI 14739	12V	45W	G53	24	111	67	4000
14740	12V	45W	G53	45	111	67	4000
M203IRC_PHI 14741	12V	60W	G53	8	111	67	4000
M204IRC_PHI 14742	12V	60W	G53	24	111	67	4000
M103IRC_PHI 14743	12V	60W	G53	45	111	67	4000



HALOGEN

Order code	Manufacturer's code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**GE TWIST AND LOCK - TAL 50 CONSTANT COLOR**

TAL414	TAL414/CC	12V	20W	GU7	11	50.7	50.5	3500
TAL416	TAL416/CC	12V	20W	GU7	36	50.7	50.5	3500
TAL417	TAL417/CC	12V	35W	GU7	8	50.7	50.5	3500
TAL419	TAL419/CC	12V	35W	GU7	38	50.7	50.5	3500
TAL420	TAL420/CC	12V	50W	GU7	10	50.7	50.5	3500
TAL421	TAL421/CC	12V	50W	GU7	21	50.7	50.5	3500
TAL422	TAL422/CC	12V	50W	GU7	38	50.7	50.5	3500
TAL423	TAL423/CC	12V	50W	GU7	60	50.7	50.5	3500

Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**GE TWIST AND LOCK - TAL 100 CONSTANT COLOR**

TAL138	12V	35W	GU7	4	100	65	3500
TAL139	12V	50W	GU7	6	100	65	3500
TAL140	12V	50W	GU7	21	100	65	3500

**PAR 16** lamps are available with two bases - GU10 and GZ10. This eliminates the possibility of fitting a dichroic lamp in a fixture designed to withstand the lower temperature radiated by an aluminised lamp.

- GU10 Chamfered base for aluminised lamps that direct heat forward from the light source.
- GZ10 Square base for dichroic lamps that direct heat from the light source backwards.

Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
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**HALOGEN PAR 16 GU10**

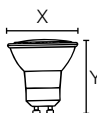
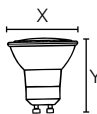
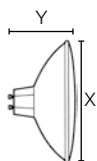
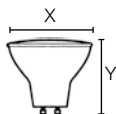
GU10 Chamfered base for aluminised lamps that direct heat forward from the light source.

20PAR16F	240V	20W	GU10	40	51	55	4000
35PAR16F	240V	35W	GU10	40	51	55	4000
50PAR16F	240V	50W	GU10	25	51	55	4000
50PAR16110F	130V	50W	GU10	38	51	55	2000
50PAR16WF	240V	50W	GU10	40 / 50	51	55	4000

Order code	Colour	V	W	Cap	X mm	Y mm	Life hrs.
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**HALOGEN PAR 16 GU10 - COLOURED**

50PAR16A	AMBER	240V	50W	GU10	51	55	2000
50PAR16B	BLUE	240V	50W	GU10	51	55	2000
50PAR16G	GREEN	240V	50W	GU10	51	55	2000
50PAR16R	RED	240V	50W	GU10	51	55	2000
50PAR16Y	YELLOW	240V	50W	GU10	51	55	2000

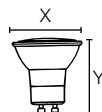




Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 16 GZ10</b>							

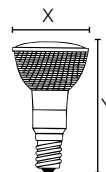
GZ10 Square base for dichroic lamps that direct heat from the light source backwards.

50PDR16F	240V	50W	GZ10	25	51	55	4000
50PDR16WF	240V	50W	GZ10	40 / 50	51	55	4000



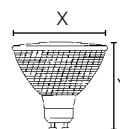
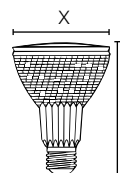
Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 16 SES/ES</b>							

25PAR16SES	240V	25W	SES/E14	25	50	79	2000
40PAR16SES	240V	40W	SES/E14	Flood	50	79	2000
50PAR16SES	240V	50W	SES/E14	36	50	79	2000
50PAR16ES	240V	50W	ES/E27	40	51	75	2000



Order code	Finish	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 20</b>								

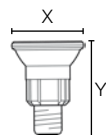
50PAR20F-GU10		240V	50W	GU10	25	64	62	2500
50PAR20S		240V	50W	ES/E27	10	65	88	2500
50PDR20S	DICHROIC	240V	50W	ES/E27	10	65	88	2500
50PAR20F		240V	50W	ES/E27	25	65	88	2500
50PDR20F	DICHROIC	240V	50W	ES/E27	25	65	88	2500
50PAR20F110		120V	50W	ES/E27	25	65	88	2500
75PAR20F		240V	75W	GU10	25	64	62	2500
75PAR20WF		240V	75W	GU10	50	64	62	2500
75PDR20F	DICHROIC	240V	75W	GZ10	25	64	62	2500
75PDR20WF	DICHROIC	240V	75W	GZ10	50	64	62	2500



Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>PHILIPS MASTERPAR ELECTRONIC</b>							

Philips mains voltage PAR 20 which houses a 12v capsule and has an integral transformer.

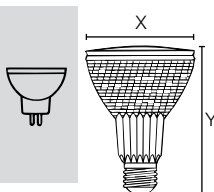
20PAR20S	240V	20W	ES/E27	10	64	86	5000
20PAR20F	240V	20W	ES/E27	25	64	86	5000



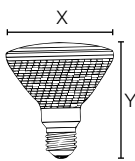
HALOGEN



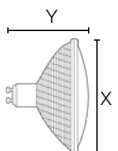
Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 25</b>							
50PAR25S	240V	50W	ES/E27	10	80	108	2500
50PAR25F	240V	50W	ES/E27	25	80	108	2500
75PAR25S	240V	75W	ES/E27	10	80	108	3000
75PAR25F	240V	75W	ES/E27	25	80	108	3000



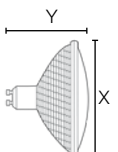
Order code	Finish	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 30</b>								
75PAR30S		240V	75W	ES/E27	10	95	91	3000
75PDR30S	DICHROIC	240V	75W	ES/E27	10	95	91	3000
75PAR30F		240V	75W	ES/E27	30	95	91	3000
75PDR30F	DICHROIC	240V	75W	ES/E27	30	95	91	3000
75PAR30FL110		120V	75W	ES/E27	35	95	91	3000
100PAR30S		240V	100W	ES/E27	10	95	91	3000
100PAR30F		240V	100W	ES/E27	30	95	91	3000



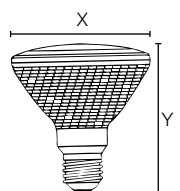
Order code	V	W	Cap	Beam angle °	X mm	Y mm	Life hrs.
<b>HALOGEN HI-SPOT ES 111</b>							
75ES111F	240V	75W	GU10	24	111	70	2000



Order code	V	W	Cap	Beam angle	X mm	Y mm	Life hrs.
<b>HALOGEN HI-SPOT ESD 111 DICHROIC</b>							
100ESD111S	240V	100W	GZ10	10	111	70	2000
100ESD111F	240V	100W	GZ10	24	111	70	2000

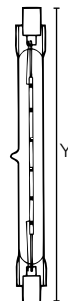


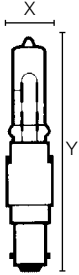
Order code	V	W	Cap	Beam angle	X mm	Y mm	Life hrs.
<b>HALOGEN PAR 38</b>							
75PAR38S	240V	75W	ES/E27	10	122	136	3000
75PAR38F	240V	75W	ES/E27	30	122	136	3000
100PAR38S	240V	100W	ES/E27	10	122	136	3000
100PAR38F	240V	100W	ES/E27	30	122	136	3000



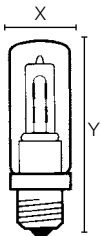


Order code	V	W	Cap	Y mm	Life hrs.
<b>LINEAR HALOGEN</b>					
K34	240V	60W	R7S	79	2000
K34-119	240V	60W	R7S	119	2000
K14-110	120V	100W	R7S	79	2000
K14	240V	100W	R7S	79	2000
K35-110	120V	100W	R7S	119	2000
K35	240V	100W	R7S	119	2000
K12-110	120V	150W	R7S	79	2000
K12	240V	150W	R7S	79	2000
K28-110	120V	150W	R7S	119	2000
K28	240V	150W	R7S	119	2000
K27-110	120V	200W	R7S	79	2000
K27	240V	200W	R7S	79	2000
K11-28	28V	200W	R7S	119	2000
K11-110	120V	200W	R7S	119	2000
K11	240V	200W	R7S	119	2000
K15-110	120V	250W	R7S	79	2000
K15	240V	250W	R7S	79	2000
K32-110	120V	250W	R7S	119	2000
K32	240V	250W	R7S	119	2000
K9-110	120V	300W	R7S	119	2000
K9	240V	300W	R7S	119	2000
K1-110	120V	500W	R7S	119	2000
K1	240V	500W	R7S	119	2000
K17	240V	500W	R7S	189	2000
K3-110	120V	750W	R7S	189	2000
K3	240V	750W	R7S	189	2000
K4-110	120V	1000W	R7S	189	2000
K4	240V	1000W	R7S	189	2000
K10-110	120V	1000W	R7S	254	2000
K10	240V	1000W	R7S	254	2000
K5-110	120V	1500W	R7S	254	2000
K5	240V	1500W	R7S	254	2000
K8	240V	2000W	R7S	331	2000
K6	240V	2000W	FA4	334	2000





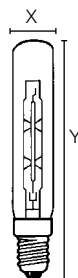
Order code	Manufacturer's code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>SINGLE ENDED HALOGEN - HALOLUX BA15D</b>								
64466KL	64466KL	CLEAR	230V	25W	SBC/BA15D	18	67	1500
64466AM	64466AM	FROSTED	230V	25W	SBC/BA15D	18	67	1500
64467KL	64467KL	CLEAR	230V	40W	SBC/BA15D	18	67	1500
64467AM	64467AM	FROSTED	230V	40W	SBC/BA15D	18	67	1500
64481KL	64481KL	CLEAR	230V	60W	SBC/BA15D	18	67	2000
64481AM	64481AM	FROSTED	230V	60W	SBC/BA15D	18	67	2000
64469KL	64469KL	CLEAR	230V	60W	SBC/BA15D	18	86	2000
64469AM	64469AM	FROSTED	230V	60W	SBC/BA15D	18	86	2000
M77C	64473KL	CLEAR	240V	75W	SBC/BA15D	18	86	2000
M77F	64473AM	FROSTED	240V	75W	SBC/BA15D	18	86	2000
M78C	64475KL	CLEAR	240V	100W	SBC/BA15D	18	86	2000
M78F	64475AM	FROSTED	240V	100W	SBC/BA15D	18	86	2000
64471KL	64471KL	CLEAR	240V	150W	SBC/BA15D	18	86	2000
64471AM	64471AM	FROSTED	240V	150W	SBC/BA15D	18	86	2000
M174C	64477KL	CLEAR	230V	150W	SBC/BA15D	18	98	2000
M174F	64477AM	FROSTED	240V	150W	SBC/BA15D	18	98	2000
JD120-150-SBC	Q150/CL/DC	CLEAR	120V	150W	SBC/BA15D	14	58	2000
M110C	64479KL	CLEAR	240V	230W	SBC/BA15D	18	98	2000
M110F	64479AM	FROSTED	240V	230W	SBC/BA15D	18	98	2000
JD120-250-SBC	Q250CL/DC	CLEAR	120V	250W	SBC/BA15D	14	80	2000
JD120-500-SBC	Q500CL/DC	CLEAR	120V	500W	SBC/BA15D	14	91	2000



Order code	Manufacturer's code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>SINGLE ENDED HALOGEN - HALOLUX E27</b>								
60TESC	64472	CLEAR	230V	60W	ES/E27	32	105	2000
60TESO	64472IM	PEARL	230V	60W	ES/E27	32	105	2000
M183C	64474KL	CLEAR	240V	75W	ES/E27	32	105	2000
M183P	64474IM	PEARL	240V	75W	ES/E27	32	105	2000
M182C-110	JT1047	CLEAR	120V	100W	ES/E27	32	86	2000
M182C	64476KL	CLEAR	240V	100W	ES/E27	32	105	2000
M182P	64476IM	PEARL	240V	100W	ES/E27	32	105	2000
M150C-110		CLEAR	120V	150W	ES/E27	32	105	2000
M150C	64478KL	CLEAR	240V	150W	ES/E27	32	105	2000
M150P	64478IM	PEARL	240V	150W	ES/E27	32	105	2000
JD120-250-E27		CLEAR	120V	250W	ES/E27	32	105	2000
M151C	64480KL	CLEAR	240V	230W	ES/E27	32	105	2000
M151P	64480IM	PEARL	240V	230W	ES/E27	32	105	2000

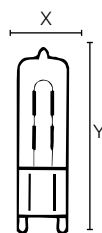


Order code	Manufacturer's code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>SINGLE ENDED HALOGEN - HALOLUX E14</b>								
25TSES	64860T	CLEAR	230V	25W	SES/E14	26	80	1500
40TSES	64861T	CLEAR	230V	40W	SES/E14	26	80	1500
40TSESF	64861T IM	FROSTED	230V	40W	SES/E14	26	80	1500
60TSES	64862T	CLEAR	230V	60W	SES/E14	26	80	1500
60TSESF	64862T IM	FROSTED	230V	60W	SES/E14	26	80	2000



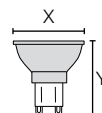
Order code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>HALOPIN</b>							

HP25110C	CLEAR	120V	25W	G9	13	47	2000
HP25110F	FROSTED	120V	25W	G9	13	47	2000
HP25C	CLEAR	240V	25W	G9	13	47	2000
HP25F	FROSTED	240V	25W	G9	13	47	2000
HP40C	CLEAR	240V	40W	G9	13	47	2000
HP40F	FROSTED	240V	40W	G9	13	47	2000
HP60110F	FROSTED	120V	60W	G9	13	47	2000
HP60C	CLEAR	240V	60W	G9	13	47	2000
HP60F	FROSTED	240V	60W	G9	13	47	2000
HP75C	CLEAR	240V	75W	G9	13	47	2000
HP75F	FROSTED	240V	75W	G9	13	47	2000



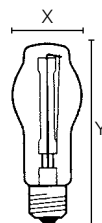
Order code	Manufacturer's code	V	W	Cap	X mm	Y mm	Life hrs.
<b>DECOPIN</b>							

DP40	60040FL	240V	40W	G9	42	43	2000
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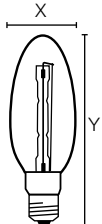


Order code	Manufacturer's code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>HALOGENA</b>								

40BTESC	64470BT	CLEAR	230V	40W	ES/E27	48	117	2000
40BTESO	64470BT SIL	OPAL	230V	40W	ES/E27	48	117	2000
60BTBCC	13948	CLEAR	240V	60W	BC/B22D	48	117	2000
60BTBCO	13950	OPAL	240V	60W	BC/B22D	48	117	2000
60BTESC		CLEAR	240V	60W	ES/E27	48	117	2000
60BTESO	64472BT SIL	OPAL	230V	60W	ES/E27	48	117	2000
100BTBCC	13645	CLEAR	240V	100W	BC/B22D	48	117	2000
100BTBCO	13646	OPAL	240V	100W	BC/B22D	48	117	2000
100BTESC	13645	CLEAR	240V	100W	ES/E27	48	117	2000
100BTESO	64476BT SIL	OPAL	230V	100W	ES/E27	48	117	2000
150BTBCC		CLEAR	230V	150W	BC/B22D	48	117	2000
150BTBCO		OPAL	230V	150W	BC/B22D	48	117	2000
150BTESC	13649	CLEAR	240V	150W	ES/E27	48	117	2000
150BTESO	13650	OPAL	240V	150W	ES/E27	48	117	2000



HALOGEN

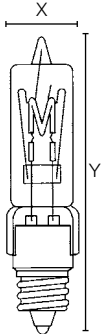


Order code	Manufacturer's code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
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HALOGEN CANDLE								
CNDH25SESC	64860HC	CLEAR	230V	25W	SES/E14	32	105	1500
CNDH40SESC	64861HC	CLEAR	230V	40W	SES/E14	32	105	2000
CNDH60SESC	64862HC	CLEAR	230V	60W	SES/E14	32	105	2000

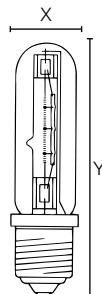
Order code	Description	Finish	V	W	Cap	X mm	Y mm	Life hrs.
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SINGLE ENDED HALOGEN - JD								
JD110-75-M2	JD	CLEAR	120V	75W	E11	11	65	1000
JD110-75-M7	JD	CLEAR	120V	75W	SES/E14	11	75	1500
JD240-75-M2	JD	CLEAR	240V	75W	E11	11	68	1000
JD240-75-M7	JD	CLEAR	240V	75W	SES/E14	13	75	1500
JD110-100-M2	JD	CLEAR	120V	100W	E11	14	68	1000
JD110-100-M7	JD	CLEAR	120V	100W	SES/E14	12	75	1500
JD240-100-M2	JD	CLEAR	240V	100W	E11	14	68	1000
JD240-100-M7	JD	CLEAR	240V	100W	SES/E14	14	75	1500
JD120-150-SBC	JD	CLEAR	120V	150W	SBC/BA15D	14	72	1500
JD110-150-M2	JD	CLEAR	120V	150W	E11	12	65	1000
JD110-150-M7	JD	CLEAR	120V	150W	SES/E14	14	75	1500
JD240-150-M2	JD	CLEAR	240V	150W	E11	14	68	2000
JD240-150-M7	JD	CLEAR	240V	150W	SES/E14	14	75	1500
JD240-200-M7	JD	CLEAR	240V	200W	SES/E14	14	81	2000
JD120-250-SBC	JD	CLEAR	120V	250W	SBC/BA15D	14	80	2000
JD110-250-M2	JD	CLEAR	120V	250W	E11	14	79	2000
JD110-250-M7	JD	CLEAR	120V	250W	SES/E14	14	81	2000
JD110-250-E27	JD	CLEAR	120V	250W	ES/E27	32	105	2000
JD240-250-M2	JD	CLEAR	240V	250W	E11	15	68	2000
JD240-250-M7	JD	CLEAR	240V	250W	SES/E14	14	81	2000
JD120-500-SBC	JD	CLEAR	120V	500W	SBC/BA15D	14	91	2000
JD110-500-M2	JD	CLEAR	120V	500W	E11	14	95	2000
JD110-500-M7	JD	CLEAR	120V	500W	SES/E14	14	85	2000
JD240-500-M2	JD	CLEAR	240V	500W	E11	14	89	2000
JD240-500-M7	JD	CLEAR	240V	500W	SES/E14	14	95	2000

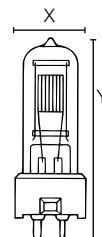




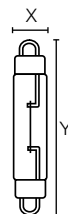
Order code	Description	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>SINGLE ENDED HALOGEN - IDE/JTT</b>								
IDE120-300	IDE/JTT	CLEAR	120V	300W	GES/E40	42	220	2000
IDE240-300	IDE/JTT	CLEAR	240V	300W	GES/E40	42	220	2000
IDE120-500	IDE/JTT	CLEAR	120V	500W	GES/E40	42	220	2000
IDE240-500	IDE/JTT	CLEAR	240V	500W	GES/E40	42	220	2000
IDE120-1000	IDE/JTT	CLEAR	120V	1000W	GES/E40	42	260	2000
IDE240-1000	IDE/JTT	CLEAR	240V	1000W	GES/E40	42	260	2000
IDE240-1500	IDE/JTT	CLEAR	240V	1500W	GES/E40	42	260	2000
IDE240-2000	IDE/JTT	CLEAR	240V	2000W	GES/E40	42	340	2000



Order code	Description	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>SINGLE ENDED HALOGEN - GY9.5</b>								
M38-110	M38	CLEAR	120V	300W	GY9.5	29	80	2000
M38	M38	CLEAR	240V	300W	GY9.5	29	80	2000
M40-110	M40	CLEAR	120V	500W	GY9.5	30	85	2000
M40	M40	CLEAR	240V	500W	GY9.5	30	85	2000



Order code	Finish	V	W	Cap	X mm	Y mm	Life hrs.
<b>RIGID LOOP LAMPS</b>							
RL12-5-CLEAR	CLEAR	12V	5W	RIGID LOOP	10	44	20,000
RL12-5-FROSTED	FROSTED	12V	5W	RIGID LOOP	10	44	20,000
RL12-8.5-CLEAR	CLEAR	12V	8.5W	RIGID LOOP	10	44	20,000
RL12-10-CLEAR	CLEAR	12V	10W	RIGID LOOP	10	44	20,000
RL12-10-FROSTED	FROSTED	12V	10W	RIGID LOOP	10	44	20,000
RL24-5-CLEAR	CLEAR	24V	5W	RIGID LOOP	10	44	20,000
RL24-5-FROSTED	FROSTED	24V	5W	RIGID LOOP	10	44	20,000
RL24-8.5-FROSTED	FROSTED	24V	8.5W	RIGID LOOP	10	44	20,000
RL24-10-CLEAR	CLEAR	24V	10W	RIGID LOOP	10	44	20,000
RL24-10-FROSTED	FROSTED	24V	10W	RIGID LOOP	10	44	20,000



HALOGEN



Order code	Bulb Type	V	W	Cap	Finish	Replaces	Fig no.
<b>LOW ENERGY HALOGEN</b>							

28BCPH	GLS	240V	28W	B22D	PEARL	40W BC GLS	1
28BCCH	GLS	240V	28W	B22D	CLEAR	40W BC GLS	1
28ESPH	GLS	240V	28W	E27	PEARL	40W ES GLS	1
28ESCH	GLS	240V	28W	E27	CLEAR	40W ES GLS	1
42BCPH	GLS	240V	42W	B22D	PEARL	60W BC GLS	1
42BCCH	GLS	240V	42W	B22D	CLEAR	60W BC GLS	1
42ESPH	GLS	240V	42W	E27	PEARL	60W ES GLS	1
42ESCH	GLS	240V	42W	E27	CLEAR	60W ES GLS	1
CNDH28BCO	CANDLE	240V	28W	B22D	OPAL	40W BC CANDLE	2
CNDH28BCC	CANDLE	240V	28W	B22D	CLEAR	40W BC CANDLE	2
CNDH28SESO	CANDLE	240V	28W	E14	OPAL	40W SES CANDLE	2
CNDH28SESC	CANDLE	240V	28W	E14	CLEAR	40W SES CANDLE	2
28R50SESH	R50 REFLECTOR	240V	28W	E14	DIFFUSED	40W R50 REFLECTOR	3
42R64ESH	R64 REFLECTOR	240V	42W	E27	DIFFUSED	60W R64 REFLECTOR	4
40PAR16GU10	PAR16 GU10	240V	40W	GU10		50W PAR16 GU10	5
K9-HIR	LINEAR HALOGEN	240V	230W	R7S		300W LINEAR HALOGEN	7
K1-HIR	LINEAR HALOGEN	240V	400W	R7S		500W LINEAR HALOGEN	7
HP33	G9 HALOPIN	240V	33W	G9	CLEAR	40W G9 HALOPIN	6

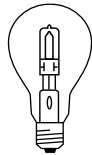


Fig. 1

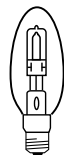


Fig. 2

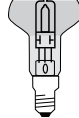


Fig. 3

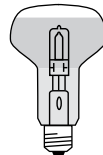


Fig. 4



Fig. 5



Fig. 6



Fig. 7



#### **Low Energy Halogen vs Incandescent**

- 30% Energy savings
- Double life
- Not subject to the bulb ban

#### **Low Energy Halogen vs Compact Fluorescent**

- Dimensionally identical to the lamp they are replacing
- Fully dimmable
- Reach full brightness instantly

#### **Low Energy Halogen vs Halogen**

- 20% Energy savings