

LOW VOLTAGE HALOGEN LAMPS

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MANUFACTURER'S LAMP CROSS REFERENCE**Sylvania**

Low Pressure Capsule
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 SA111
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 Hi-Spot Home ES50
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 Hi-Spot Superia ES111 AG / ESD111 AG
 Hi-Spot 50
 Hi-Spot 63
 Hi-Spot 80
 Hi-Spot 95
 Hi-Spot 120
 DLX-T
 DLX-BTT
 Linear Double Ended

Osram

HALOSTAR
 DECOSTAR
 DECOSTAR TITAN
 DECOSTAR 51 IRC
 HALOSPOT 111
 HALOPIN
 HALOPAR 16
 HALOPAR 16
 –
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 HALOPAR 16
 HALOPAR 20
 –
 HALOPAR 30
 –
 HALOLUX T
 HALOLUX BT
 HALOLINE

Philips

CAPSULEline PRO
 HALOTONE
 BRILLIANTline PRO
 HALOTONE
 ALUline PRO 111
 –
 TWISTLINE PRO
 TWISTLINE
 –
 –
 PAR 16 HalogenA
 PAR 20 HalogenA
 –
 PAR 30S HalogenA
 PAR 38 HalogenA
 HalogenA PRO T32
 HalogenA PRO BTT46
 HALOTONE

GE

QUARTZ HALOGEN
 STANDARD MR16/MR11
 PRECISE MR16/MR11
 –
 –
 –
 MR16 TAL
 MR16 TAL
 –
 HALOGEN PAR 36
 HALOGEN PAR 16
 HALOGEN PAR 20
 –
 HALOGEN PAR 30
 HALOGEN PAR 38
 –
 HALOGEN A-Line
 QUARTZLINE

LOW VOLTAGE HALOGEN LAMPS



CAPSULES

The smallest low voltage lamps.



DICHROIC

A reliable, cost effective favourite with specifiers, contractors and end users.



SUPERIA/DICHROIC

The preferred choice of many specifiers and end users.



COOLFIT

Coolfit sealed front 50 mm low voltage lamps have an aluminised reflector that dissipates heat and light forward. This makes them very suitable for use in interior downlights.

Mains voltage halogen lamps operate direct from the mains, without the need for a transformer, and can be dimmed: making them quick and easy to install, simple to operate and lowering installation and user costs.

All HI-SPOT® mains voltage halogen lamps are rated UV-Stop and are manufactured from materials which dramatically reduce UV emissions.

MAINS VOLTAGE HALOGEN LAMPS



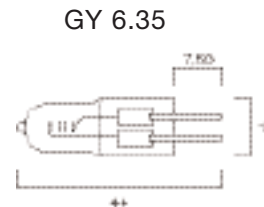
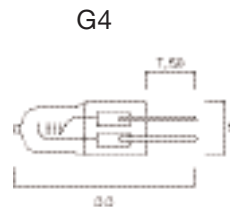
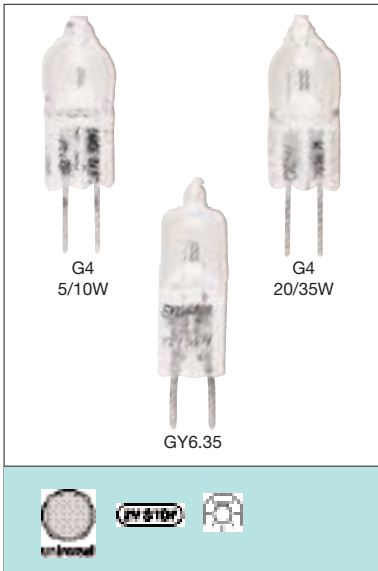
HI-SPOT SUPERIA ES50

Sylvania is a true pioneer of mains voltage halogen lamps, and now introduces the new and improved HI-SPOT SUPERIA ES50 range.

This range of SUPERIA GU10 and GZ10 halogen reflector lamps, features a life of 4000 hours, and an improvement in light output.

HI-SPOT SUPERIA ES50 sets a new market standard for mains voltage compact halogen reflector lamps.

Low Pressure Capsule

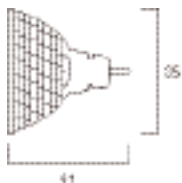


- Compact size for optimum luminaire design
- Dimmable using a suitable dimmer for operation with a transformer
- Constant light output throughout lamp life
- Suitable for use in open luminaires following new Luminaire Standard EN 60598
- Interior display, shop windows, restaurants and discotheque lighting
- Precision task lighting

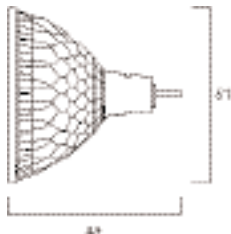


Code	Description	Watt	Volt	Cap	Colour Temp	Luminous Flux	Average Rated Life	Packing Qty
Low Pressure Capsule								
0022165	12V/5W LP	5W	12V	G4	2800K	40 lm	2000 hrs	50
0022241	12V/10W LP	10W	12V	G4	2800K	100 lm	2000 hrs	50
0022242	12V/20W LP	20W	12V	G4	2800K	250 lm	2000 hrs	50
0022246	12V/35W LP	35W	12V	G4	2800K	500 lm	2000 hrs	50
0021021	12V/35W LP	35W	12V	GY 6.35	2800K	520 lm	2000 hrs	50
0021022	12V/50W LP	50W	12V	GY 6.35	2800K	900 lm	2000 hrs	50

GZ4/GU4



GX/GU5.3



Dichroic 35

		20W	35W
175mmØ	1m	3600lx	5700lx
350mmØ	2m	900lx	1425lx
525mmØ	3m	400lx	633lx
700mmØ	4m	225lx	356lx

Dichroic 50

		20W	35W	50W
175mmØ	1m	3600lx	5000lx	8000lx
350mmØ	2m	900lx	1250lx	2000lx
525mmØ	3m	400lx	556lx	891lx
700mmØ	4m	225lx	313lx	500lx

		20W	35W	50W
689mmØ	1m	660lx	1200lx	1950lx
1377mmØ	2m	165lx	300lx	488lx
2066mmØ	3m	73lx	133lx	217lx
2755mmØ	4m	41lx	75lx	122lx

		50W
1155mmØ	1m	900lx
2309mmØ	2m	225lx
3464mmØ	3m	100lx
4619mmØ	4m	56lx



- Cool beam – 66% of the heat produced is radiated through the back of the lamp
- Dimmable using a suitable dimmer for operation with a transformer
- Constant colour and light output throughout lamp life
- Excellent colour rendering
- Universal burning position
- Accent and decorative lighting in retail, commercial and domestic applications

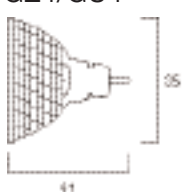


Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Dichroic 35									
0022336	FTB 12V/20W	20W	12V	10°	GU4	2900K	3600 cd	1500 hrs	10
0022339	FTE 12V/35W	35W	12V	10°	GU4	2900K	5700 cd	1500 hrs	10
Dichroic 50									
0022580	ESX 20W/12V 10°	20W	12V	10°	GU5.3	2925K	3600 cd	4000 hrs	10
0021765	BAB 20W/12V 38°	20W	12V	38°	GU5.3	2925K	660 cd	4000 hrs	10
0022581	FMT 35W/12V 10°	35W	12V	10°	GU5.3	3000K	5000 cd	4000 hrs	10
0021766	FMW 35W/12V 38°	35W	12V	38°	GU5.3	3000K	1200 cd	4000 hrs	10
0022582	EXT 50W/12V 10°	50W	12V	10°	GU5.3	3050K	8000 cd	4000 hrs	10
0021767	EXN 50W/12V 38°	50W	12V	38°	GU5.3	3050K	1950 cd	4000 hrs	10
0022390	FNV 50W/12V 60°	50W	12V	60°	GU5.3	3050K	900 cd	4000 hrs	10

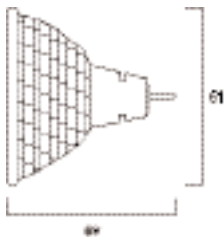
Superia 35/Superia 50



GZ4/GU4



GX/GU5.3



Superia 35

Beam Angle	1m	2m	3m	4m	20W	35W
38°	689mmØ	1377mmØ	2066mmØ	2755mmØ	700lx	1350lx
					175lx	338lx
					78lx	180lx
					44lx	84lx

Superia 50

Beam Angle	1m	2m	3m	4m	20W	35W	50W
10°	175mmØ	350mmØ	525mmØ	700mmØ	4000lx	7700lx	11500lx
					1000lx	1925lx	2850lx
					444lx	855lx	1278lx
					250lx	481lx	719lx

Beam Angle	1m	2m	3m	4m	20W	35W	50W
38°	689mmØ	1377mmØ	2066mmØ	2755mmØ	790lx	1450lx	2250lx
					198lx	363lx	563lx
					88lx	161lx	250lx
					49lx	91lx	141lx

Beam Angle	1m	2m	3m	4m	50W
24°	425mmØ	850mmØ	1275mmØ	1700mmØ	3600lx
					900lx
					400lx
					225lx

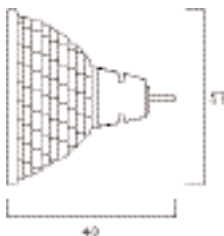
Beam Angle	1m	2m	3m	4m	50W
60°	1155mmØ	2309mmØ	3464mmØ	4619mmØ	1000lx
					250lx
					111lx
					62.5lx

- Cool Beam – 66% of the heat produced is radiated through the back of the lamp
- Spiral reflector, uniform beam pattern, patented design
- Constant colour and light output throughout lamp life
- No colour variation between lamps
- 25% longer life
- Professional lighting of objects and displays sensitive to heat



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Superia 35									
0022338	FTD 12V/20W	20W	12V	38°	GU4	2925K	700 cd	4000 hrs	10
0022341	FTH 12V/35W	35W	12V	38°	GU4	3000K	1350 cd	4000 hrs	10
Superia 50									
0022301	ESX 12V/20W	20W	12V	10°	GU5.3	2925K	4000 cd	5000 hrs	10
0022302	BAB 12V/20W	20W	12V	38°	GU5.3	2925K	790 cd	5000 hrs	10
0022305	FMT 12V/35W	35W	12V	10°	GU5.3	3000K	7700 cd	5000 hrs	10
0022306	FMW 12V/35W	35W	12V	38°	GU5.3	3000K	1450 cd	5000 hrs	10
0022311	EXT 12V/50W	50W	12V	10°	GU5.3	3050K	11500 cd	5000 hrs	10
0022312	EXZ 12V/50W	50W	12V	24°	GU5.3	3050K	3600 cd	5000 hrs	10
0022314	EXN 12V/50W	50W	12V	38°	GU5.3	3050K	2250 cd	5000 hrs	10
0022315	FNV 12V/50W	50W	12V	60°	GU5.3	3050K	1000 cd	5000 hrs	10

GX/GU5.3



38°		20W	35W	50W
689mmØ	1m	660lx	1200lx	1950lx
1377mmØ	2m	165lx	300lx	488lx
2066mmØ	3m	73lx	133lx	217lx
2755mmØ	4m	41lx	75lx	122lx

60°		50W
1155mmØ	1m	900lx
2309mmØ	2m	225lx
3464mmØ	3m	100lx
4619mmØ	4m	56lx



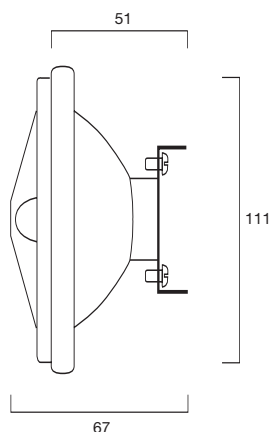
GU5.3



- Virtually all heat and light dissipated away from back of the lamp keeping fixture cool and therefore safer, particularly suitable for use in fire rated downlights
- Wear resistant aluminium reflector for constant output and colour throughout life
- Excellent colour rendering
- Easily recognisable by blue cement in lamp cap
- Can replace any 12V 50mmØ dichroic low voltage lamp
- Suitable for use in open ceilings



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Coolfit 50									
0022516	20W/12V 38°	20W	12V	38°	GU5.3	3000K	660 cd	5000 hrs	10
0022517	35W/12V 38°	35W	12V	38°	GU5.3	3000K	1200 cd	5000 hrs	10
0022519	50W/12V 38°	50W	12V	38°	GU5.3	3000K	1950 cd	5000 hrs	10
0022520	50W/12V 60°	50W	12V	60°	GU5.3	3000K	900 cd	5000 hrs	10



8°		50W	75W	100W
140mmØ	1m	2300lx	3000lx	4800lx
280mmØ	2m	575lx	750lx	1200lx
420mmØ	3m	256lx	333lx	533lx
559mmØ	4m	143lx	187lx	300lx

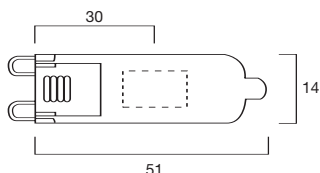
24°		50W	75W	100W
425mmØ	1m	400lx	530lx	850lx
850mmØ	2m	100lx	132lx	212lx
1275mmØ	3m	44lx	58lx	94lx
1700mmØ	4m	25lx	33lx	53lx

45°		50W	75W	100W
828mmØ	1m	1200lx	1700lx	2800lx
1657mmØ	2m	300lx	425lx	700lx
2485mmØ	3m	133lx	189lx	311lx
3314mmØ	4m	75lx	106lx	175lx

- Aluminium reflector dissipates heat and light forward
- Dimmable using a suitable dimmer for operation with a transformer
- Even light distribution and constant colour throughout lamp life
- Integrated anti-glare shield
- Low pressure capsule (1,2 bar)
- For accent and decorative lighting in retail, commercial and domestic applications



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
SA111									
0021850	SA111 SP	50W	12V	8°	G53	2900K	23000 cd	3000 hrs	6
0021853	SA111 FL	50W	12V	24°	G53	2900K	4000 cd	3000 hrs	6
0021856	SA111 WFL	50W	12V	45°	G53	2900K	1200 cd	3000 hrs	6
0021851	SA111 SP	75W	12V	8°	G53	2900K	30000 cd	3000 hrs	6
0021854	SA111 FL	75W	12V	24°	G53	2900K	5300 cd	3000 hrs	6
0021857	SA111 WFL	75W	12V	45°	G53	2900K	1700 cd	3000 hrs	6
0021852	SA111 SP	100W	12V	8°	G53	2900K	48000 cd	3000 hrs	6
0021855	SA111 FL	100W	12V	24°	G53	2900K	8500 cd	3000 hrs	6
0021858	SA111 WFL	100W	12V	45°	G53	2900K	2800 cd	3000 hrs	6



- Sylvania's smallest mains voltage halogen lamp
- Integral safety fuse
- Approved for use in open luminaires
- Available in both clear and frosted finish
- Easy installation with G9 plug-in base
- Patented filament support method delivers total safety on failure at end of life

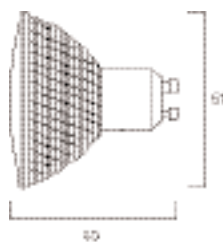
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Hi-Pin									
0022801	Hi-Pin 25W/230V Clear	25W	230V	G9	Clear	2800K	240 lm	2000 hrs	20
0022797	Hi-Pin 25W/230V Frosted	25W	230V	G9	Frosted	2800K	210 lm	2000 hrs	20
0022803	Hi-Pin 40W/230V Clear	40W	230V	G9	Clear	2800K	440 lm	2000 hrs	20
0022783	Hi-Pin 40W/230V Frosted	40W	230V	G9	Frosted	2800K	420 lm	2000 hrs	20
0022805	Hi-Pin 60W/230V Clear	60W	230V	G9	Clear	2800K	740 lm	2000 hrs	20
0022785	Hi-Pin 60W/230V Frosted	60W	230V	G9	Frosted	2800K	720 lm	2000 hrs	20
0022807	Hi-Pin 75W/230V Clear	75W	230V	G9	Clear	2800K	1000 lm	2000 hrs	20
0022799	Hi-Pin 75W/230V Frosted	75W	230V	G9	Frosted	2800K	950 lm	2000 hrs	20
0022802	Hi-Pin 25W/240V Clear	25W	240V	G9	Clear	2800K	240 lm	2000 hrs	20
0022798	Hi-Pin 25W/240V Frosted	25W	240V	G9	Frosted	2800K	210 lm	2000 hrs	20
0022804	Hi-Pin 40W/240V Clear	40W	240V	G9	Clear	2800K	440 lm	2000 hrs	20
0022784	Hi-Pin 40W/240V Frosted	40W	240V	G9	Frosted	2800K	420 lm	2000 hrs	20
0022806	Hi-Pin 60W/240V Clear	60W	240V	G9	Clear	2800K	740 lm	2000 hrs	20
0022786	Hi-Pin 60W/240V Frosted	60W	240V	G9	Frosted	2800K	720 lm	2000 hrs	20
0022808	Hi-Pin 75W/240V Clear	75W	240V	G9	Clear	2800K	1000 lm	2000 hrs	20
0022800	Hi-Pin 75W/240V Frosted	75W	240V	G9	Frosted	2800K	950 lm	2000 hrs	20

Hi-Spot® Superia ES50/ESD50

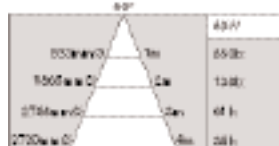
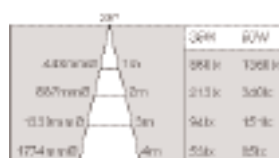
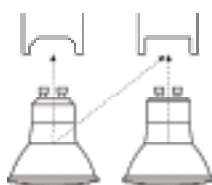
NEW



GZ10 ONLY



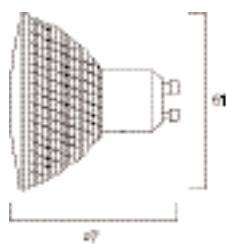
GU10 GZ10



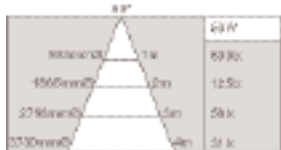
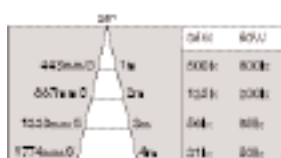
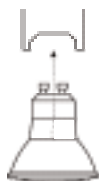
- Unique long life filament – **4000 hours life**
- Xenon gas filling for increased light output
- Unique, patented, computer designed spiral faceted aluminised reflector
- For accent or decorative lighting in retail, commercial and domestic applications
- Ceramic base, brass contacts for a robust fitting
- For use in mains voltage GU10/GZ10 downlights, spotlights and luminaires



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot Superia ES50									
0022900	Hi-Spot ES 50 35W/FL25°	35W	230V	25°	GU10	2700K	850 cd	4000 hrs	15
0022902	Hi-Spot ES 50 50W/FL25°	50W	230V	25°	GU10	2750K	1360 cd	4000 hrs	15
0022906	Hi-Spot ES 50 50W/WFL50°	50W	230V	50°	GU10	2750K	550 cd	4000 hrs	15
0022901	Hi-Spot ES 50 35W/FL25°	35W	240V	25°	GU10	2700K	850 cd	4000 hrs	15
0022903	Hi-Spot ES 50 50W/FL25°	50W	240V	25°	GU10	2750K	1360 cd	4000 hrs	15
0022907	Hi-Spot ES 50 50W/WFL50°	50W	240V	50°	GU10	2750K	550 cd	4000 hrs	15
Hi-Spot Superia ESD50 Dichroic									
0022904	Hi-Spot ESD 50 50W/FL25°	50W	230V	25°	GZ10	2800K	1360 cd	4000 hrs	15
0022908	Hi-Spot ESD 50 50W/WFL50°	50W	230V	50°	GZ10	2800K	550 cd	4000 hrs	15
0022905	Hi-Spot ESD 50 50W/FL25°	50W	240V	25°	GZ10	2800K	1360 cd	4000 hrs	15
0022909	Hi-Spot ESD 50 50W/WFL50°	50W	240V	50°	GZ10	2800K	550 cd	4000 hrs	15



GU10

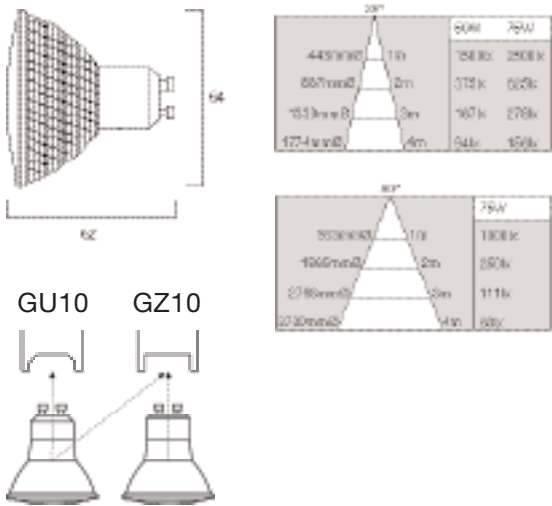


- Unique, patented, computer designed spiral faceted aluminised reflector
- Clear front lens for crisp sparkling light
- Ceramic base
- For use in mains voltage GU10 downlights, spotlights and luminaires



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot Home ES50									
0021254	Hi-Spot ES50 230-240V 35W 25°	35W	230-240V	25°	GU10	2700K	500 cd	2500 hrs	15
0021256	Hi-Spot ES50 230-240V 50W 25°	50W	230-240V	25°	GU10	2700K	800 cd	2500 hrs	15
0021261	Hi-Spot ES50 230-240V 50W 50°	50W	230-240V	50°	GU10	2700K	500 cd	2500 hrs	15

Hi-Spot® ES63/ESD63

GU10 GZ10

25°

Beam Diameter	1m	2m	3m	4m	50W	75W
445mm	1m	1580lx	2500lx			
667mm	2m	375lx	625lx			
1033mm	3m	167lx	278lx			
1374mm	4m	94lx	150lx			

50°

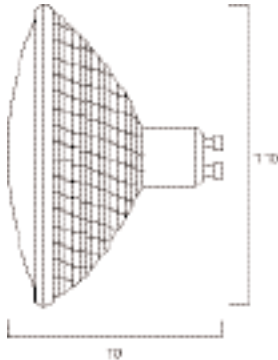
Beam Diameter	1m	2m	3m	4m	75W
1033mm	1m	1800lx			
1667mm	2m	650lx			
2500mm	3m	278lx			
3333mm	4m	150lx			

GU10 ONLY

- Halogen light without the need for a transformer
- Installing and changing lamps made easier with the 'turn and lock' GU10 and GZ10 caps
- Unique patented, computer designed spiral faceted reflector
- Can be dimmed using standard dimmer switches
- For accent or decorative lighting in retail, commercial and domestic applications
- Suitable for exterior use when protected from contact with water



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot ES63									
0022266	Hi-Spot ES 63 50W/FL25°	50W	230V	25°	GU10	2750K	1500 cd	2500 hrs	15
0022271	Hi-Spot ES 63 75W/FL25°	75W	230V	25°	GU10	2800K	2500 cd	2500 hrs	15
0022261	Hi-Spot ES 63 75W/WFL50°	75W	230V	50°	GU10	2800K	1000 cd	2500 hrs	15
0022268	Hi-Spot ES 63 50W/FL25°	50W	240V	25°	GU10	2750K	1500 cd	2500 hrs	15
0022274	Hi-Spot ES 63 75W/FL25°	75W	240V	25°	GU10	2800K	2500 cd	2500 hrs	15
0022264	Hi-Spot ES 63 75W/WFL50°	75W	240V	50°	GU10	2800K	1000 cd	2500 hrs	15
Hi-Spot ESD63 Dichroic									
0022281	Hi-Spot ESD 63 75W/FL25°	75W	230V	25°	GZ10	2850K	2500 cd	2500 hrs	15
0022291	Hi-Spot ESD 63 75W/WFL50°	75W	230V	50°	GZ10	2850K	1000 cd	2500 hrs	15
0022284	Hi-Spot ESD 63 75W/FL25°	75W	240V	25°	GZ10	2850K	2500 cd	2500 hrs	15



GU10




GZ10




10°		75W
110mm Ø	1m	12 000 lx
200mm Ø	2m	3000 lx
350mm Ø	3m	1330 lx
500mm Ø	4m	750 lx

24°		100W
400mm Ø	1m	3800 lx
600mm Ø	2m	975 lx
875mm Ø	3m	568 lx
1170mm Ø	4m	310 lx







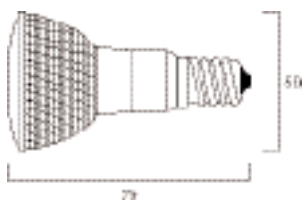

GZ10 ONLY

- Mains voltage alternative to Sylvania SA111 aluminium reflector lamp
- Integral anti-glare shield
- Halogen light without the need for a transformer
- Installing and changing lamps made easier with the 'turn and lock' GU10 and GZ10 caps
- Wattages and beam angles – ES111 AG 75W/24° and ESD111 AG 100W/10° & 24°
- For accent or decorative lighting in retail, commercial and domestic applications

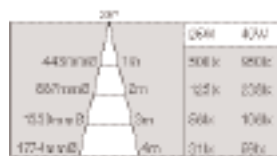
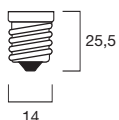


Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot ES111									
0022224	75W Flood 230V 24°	75W	230V	24°	GU10	2800K	3500 cd	2000 hrs	15
0022225	75W Flood 240V 24°	75W	240V	24°	GU10	2800K	3500 cd	2000 hrs	15
Hi-Spot ESD111 Dichroic									
0022229	100W Spot 230V 10°	100W	230V	10°	GZ10	2900K	12000 cd	2000 hrs	15
0022227	100W Flood 230V 24°	100W	230V	24°	GZ10	2900K	5000 cd	2000 hrs	15
0022228	100W Spot 240V 10°	100W	240V	10°	GZ10	2900K	12000 cd	2000 hrs	15
0022226	100W Flood 240V 24°	100W	240V	24°	GZ10	2900K	5000 cd	2000 hrs	15

Hi-Spot® 50



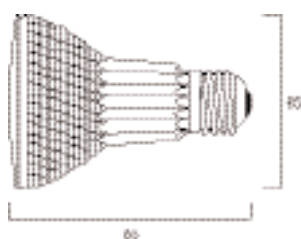
E14



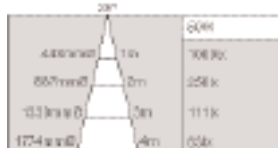
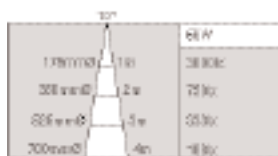
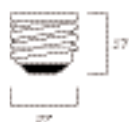
- Retrofit solution for E14 incandescent R50 lamps
- Twice the life compared to incandescent lamps
- Halogen light without the need for a transformer
- Unique, patented spiral reflector design for uniform beam pattern
- Can be dimmed using standard dimmer switches
- For use in mains voltage SES/E14 cap downlights, spotlights and luminaires



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot 50									
0021103	Hi-Spot 50 25W/FL25°	25W	230V	25°	E14	2700K	500 cd	1500 hrs	15
0021081	Hi-Spot 50 40W/FL25°	40W	230V	25°	E14	2700K	950 cd	2000 hrs	15
0021084	Hi-Spot 50 40W/FL25°	40W	240V	25°	E14	2700K	950 cd	2000 hrs	15



E27



E27

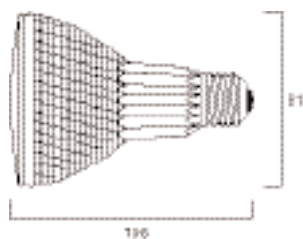


- Halogen light without the need for a transformer
- Unique, patented, computer designed spiral faceted aluminised reflector
- Can be dimmed using standard dimmer switches
- For use in mains voltage ES/E27 cap downlights, spotlights and luminaires
- For accent or decorative lighting in retail, commercial and domestic applications
- Suitable for exterior use when protected from direct contact with water

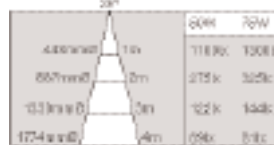
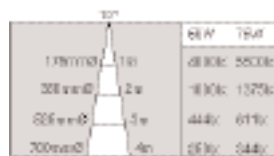


Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot 63									
0021125	Hi-Spot 63 50W/SP10°	50W	230V	10°	E27	2900K	3000 cd	2500 hrs	15
0021126	Hi-Spot 63 50W/FL25°	50W	230V	25°	E27	2900K	1000 cd	2500 hrs	15
0021127	Hi-Spot 63 50W/SP10°	50W	240V	10°	E27	2900K	3000 cd	2500 hrs	15
0021128	Hi-Spot 63 50W/FL25°	50W	240V	25°	E27	2900K	1000 cd	2500 hrs	15

Hi-Spot® 80



E27



- Halogen light without the need for a transformer
- Unique, patented, computer designed spiral faceted aluminised reflector
- Can be dimmed using standard dimmer switches
- For use in mains voltage ES/E27 cap downlights, spotlights and luminaires
- For accent or decorative lighting in retail, commercial and domestic applications
- Suitable for exterior use when protected from direct contact with water



Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot 80									
0021131	Hi-Spot 80 50W/SP10°	50W	230V	10°	E27	2900K	4000 cd	2500 hrs	15
0021132	Hi-Spot 80 50W/FL25°	50W	230V	25°	E27	2900K	1100 cd	2500 hrs	15
0021133	Hi-Spot 80 75W/SP10°	75W	230V	10°	E27	2900K	5500 cd	3000 hrs	15
0021134	Hi-Spot 80 75W/FL25°	75W	230V	25°	E27	2900K	1300 cd	3000 hrs	15
0021161	Hi-Spot 80 50W/SP10°	50W	240V	10°	E27	2900K	4000 cd	2500 hrs	15
0021162	Hi-Spot 80 50W/FL25°	50W	240V	25°	E27	2900K	1100 cd	2500 hrs	15
0021163	Hi-Spot 80 75W/SP10°	75W	240V	10°	E27	2900K	5500 cd	3000 hrs	15
0021164	Hi-Spot 80 75W/FL25°	75W	240V	25°	E27	2900K	1300 cd	3000 hrs	15

E27

	Beam Angle	Watt	70W	75W	100W
1.7mm x 0.8mm	10°	650 lx	750 lx	1000 lx	
300mm x 0.8mm	30°	175 lx	187 lx	250 lx	
525mm x 0.8mm	30°	77 lx	83 lx	111 lx	
700mm x 0.8mm	40°	47 lx	49 lx	66 lx	

	Beam Angle	Watt	70W	75W	100W
1.7mm x 0.8mm	10°	650 lx	750 lx	1000 lx	
475mm x 0.8mm	30°	55 lx	60 lx	81 lx	
1000mm x 0.8mm	30°	24 lx	26 lx	36 lx	
2144mm x 0.8mm	40°	13 lx	14 lx	19 lx	

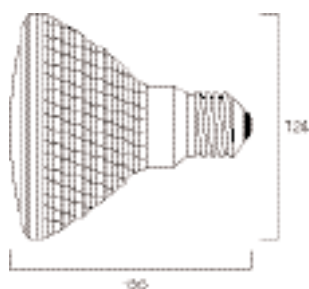
DICHOIC
ONLY

- Halogen light without the need for a transformer
- Unique, patented, computer designed spiral faceted aluminised reflector
- Can be dimmed using standard dimmer switches
- For use in mains voltage ES/E27 cap downlights, spotlights and luminaires
- Use dichroic lamps for lighting food, textiles and other objects sensitive to heat
- Suitable for exterior use when protected from direct contact with water

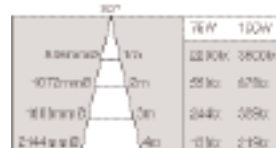


Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot 95									
0021230	Hi-Spot 95 75W/SP10°	75W	230V	10°	E27	2900K	6900 cd	3000 hrs	15
0021231	Hi-Spot 95 75W/FL30°	75W	230V	30°	E27	2900K	2200 cd	3000 hrs	15
0021234	Hi-Spot 95 100W/SP10°	100W	230V	10°	E27	2900K	10000 cd	3000 hrs	15
0021235	Hi-Spot 95 100W/FL30°	100W	230V	30°	E27	2900K	3500 cd	3000 hrs	15
0021232	Hi-Spot 95 75W/SP10°	75W	240V	10°	E27	2900K	6900 cd	3000 hrs	15
0021233	Hi-Spot 95 75W/FL30°	75W	240V	30°	E27	2900K	2200 cd	3000 hrs	15
0021236	Hi-Spot 95 100W/SP10°	100W	240V	10°	E27	2900K	6900 cd	3000 hrs	15
0021237	Hi-Spot 95 100W/FL30°	100W	240V	30°	E27	2900K	2200 cd	3000 hrs	15
Hi-Spot 95 Dichroic									
0021290	Hi-Spot 95 75W/SP10° DIC	75W	230V	10°	E27	2900K	7500 cd	3000 hrs	15
0021291	Hi-Spot 95 75W/FL30° DIC	75W	230V	30°	E27	2900K	2400 cd	3000 hrs	15
0021293	Hi-Spot 95 75W/FL30° DIC	75W	240V	30°	E27	2900K	2400 cd	3000 hrs	15
0021292	Hi-Spot 95 75W/SP10° DIC	75W	240V	10°	E27	2900K	7500 cd	3000 hrs	15

Hi-Spot® 120



E27



- Halogen light without the need for a transformer
- Unique, patented, computer designed spiral faceted aluminised reflector
- Can be dimmed using standard dimmer switches
- For use in mains voltage ES/E27 cap downlights, spotlights and luminaires
- For accent or decorative lighting in retail, commercial and domestic applications
- Suitable for exterior use when protected from direct contact with water

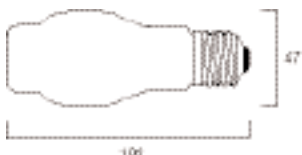


Code	Description	Watt	Volt	Beam Angle	Cap	Colour Temp	Luminous Intensity	Average Rated Life	Packing Qty
Hi-Spot 120									
0021140	Hi-Spot 120 75W/SP10°	75W	230V	10°	E27	2900K	6900 cd	3000 hrs	15
0021141	Hi-Spot 120 75W/FL30°	75W	230V	30°	E27	2900K	2200 cd	3000 hrs	15
0021144	Hi-Spot 120 100W/SP10°	100W	230V	10°	E27	2900K	10000 cd	3000 hrs	15
0021145	Hi-Spot 120 100W/FL30°	100W	230V	30°	E27	2900K	3500 cd	3000 hrs	15
0021142	Hi-Spot 120 75W/SP10°	75W	240V	10°	E27	2900K	6900 cd	3000 hrs	15
0021143	Hi-Spot 120 75W/FL30°	75W	240V	30°	E27	2900K	2200 cd	3000 hrs	15
0021146	Hi-Spot 120 100W/SP10°	100W	240V	10°	E27	2900K	3500 cd	3000 hrs	15
0021147	Hi-Spot 120 100W/FL30°	100W	240V	30°	E27	2900K	3500 cd	3000 hrs	15

DLX-T



DLX-BTT



E27



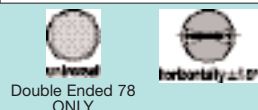
E27

- Retrofit for standard incandescent lamps
- Gives more light and consumes 20% less energy compared to an equivalent incandescent lamp
- Top quality halogen light maintained throughout life of lamp
- Double the life compared to GLS incandescent lamps
- No handling precautions needed
- Universal burning position



Code	Description	Watt	Volt	Cap	Lamp Finish	Colour Temp	Luminous Flux	Average Rated Life	Packing Qty
DLX-T									
0022052	DLX/T Clear 100W	100W	230V	E27	Clear	2900K	1500 lm	2000 hrs	40
0022053	DLX/T Satin 100W	100W	230V	E27	Satin	2900K	1480 lm	2000 hrs	40
0021416	DLX/T Clear 150W	150W	230V	E27	Clear	2900K	2550 lm	2000 hrs	40
0021417	DLX/T Satin 150W	150W	230V	E27	Satin	2900K	2380 lm	2000 hrs	40
DLX-BTT									
0021368	DLX/BTT Clear 60W	60W	230V	E27	Clear	2900K	840 lm	2000 hrs	40
0021369	DLX/BTT Satin 60W	60W	230V	E27	Satin	2900K	800 lm	2000 hrs	40
0022048	DLX/BTT Clear 100W	100W	230V	E27	Clear	2900K	1550 lm	2000 hrs	40
0022049	DLX/BTT Satin 100W	100W	230V	E27	Satin	2900K	1480 lm	2000 hrs	40
0021472	DLX/BTT Clear 150W	150W	230V	E27	Clear	2900K	2550 lm	2000 hrs	40
0021473	DLX/BTT Satin 150W	150W	230V	E27	Satin	2900K	2380 lm	2000 hrs	40

Linear Double Ended



R7s	Double Ended 78
L	78
D	10
R7s	Double Ended 118
L	118
D	8
R7s	Double Ended 189
L	189
D	12
R7s	Double Ended 254
L	254
D	12
R7s	Double Ended 331
L	331
D	12



- Instant illumination
- Excellent colour rendering
- Suitable for exterior floodlighting/security lighting
- Suitable for interior floodlighting, uplighting and wallwashing
- For use in luminaires with toughened front glass
- Do not touch the quartz envelope with bare fingers

Code	Description	Watt	Volt	Cap	Colour Temp	Luminous Flux	Average Rated Life	Packing Qty
Double Ended 78								
0022780	DE 230V 60W	60W	230V	R7s	2800K	840 lm	2000 hrs	12
0021400	DE 230V 100W	100W	230V	R7s	2900K	1600 lm	2000 hrs	12
0021401	DE 230V 150W	150W	230V	R7s	2900K	2600 lm	2000 hrs	12
0022781	DE 240V 60W	60W	240V	R7s	2800K	840 lm	2000 hrs	12
0021402	DE 240V 100W	100W	240V	R7s	2900K	1600 lm	2000 hrs	12
0021403	DE 240V 150W	150W	240V	R7s	2900K	2600 lm	2000 hrs	12
Double Ended 118								
0021545	DE 230V 150W	150W	230V	R7s	2800K	1875 lm	2000 hrs	10 x 10
0021550	DE 230V 200W	200W	230V	R7s	2850K	3000 lm	2000 hrs	10 x 10
0021681	DE 230V 300W	300W	230V	R7s	2900K	5000 lm	2000 hrs	10 x 10
0021620	DE 230V 500W	500W	230V	R7s	2900K	9500 lm	2000 hrs	10 x 10
0021551	DE 240V 200W	200W	240V	R7s	2850K	3000 lm	2000 hrs	10 x 10
0021653	DE 240V 300W	300W	240V	R7s	2900K	4800 lm	2000 hrs	10 x 10
0021621	DE 240V 500W	500W	240V	R7s	2900K	9250 lm	2000 hrs	10 x 10
Double Ended 189								
0021624	DE 230V 1000W	1000W	230V	R7s	3000K	22000 lm	2000 hrs	10 x 10
0021625	DE 240V 1000W	1000W	240V	R7s	3000K	22000 lm	2000 hrs	10 x 10
Double Ended 254								
0021626	DE 230V 1500W	1500W	230V	R7s	3000K	33000 lm	2000 hrs	10 x 10
0021628	DE 240V 1500W	1500W	240V	R7s	3000K	33000 lm	2000 hrs	10 x 10
Double Ended 331								
0021629	DE 230V 2000W	2000W	230V	R7s	3000K	44000 lm	2000 hrs	50

CABLE CROSS FOR LOW VOLT INSTALLATIONS

To operate a lamp at the same power from a 12 volt supply compared to a 240V supply, 20 times the current is required. All the components on the 12 volt side of a step down transformer supplying low voltage dichroic lamps, for example, need to be sized accordingly. Therefore a 12V 50W lamp will draw about 200 milliamperes from the 240V primary supply but will deliver 4.2 amperes to the lamp on the secondary 12V low voltage side.

It is generally accepted that the correct choice of cable cross section is 6 amperes per square mm maximum. Voltage drop between the lamps and transformer may also become a problem over long cable runs. For example a 3.5% drop in voltage at the lamp cap will cause lamp light output from a 12V lamp to reduce by 10%.

To calculate the minimum cable cross section for a given cable length the following formula is used (where the voltage drop will be 3.5% maximum):

Copper cable: $A \text{ (mm}^2\text{)} = P \text{ (lamp power in Watt)} \times L \text{ (cable run in metres)} \times 0.007$

Aluminium cable: $A = P \times L \times 0.011$

The tables below list typical values of A (cross section) for total lamp load (W), the current (I) and cable run length of L metres for each conductor type.

$$A = \text{Power (W)} \times r \times L / 2.52$$

A in mm²

r specific resistance of the cable material

... 0.018 for copper

... 0.028 for aluminium

L distance between transformer and lamp(s)

COPPER WIRE

Cable Cross Sections (mm²) for 12V lamps (max. 3.5% Voltage Drop)

Power (W)	20	40	50	80	100	120	150	200	250
Current (A)	1.7	3.3	4.2	6.7	8.3	10	12.5	16.6	20.8
Distance Transformer – Lamp (m)									
1	0.75	0.75	0.75	0.75	0.75	1.5	1.5	1.5	2.5
2	0.75	0.75	0.75	1.5	1.5	2.5	2.5	4.0	4.0
3	0.75	1.5	1.5	2.5	2.5	2.5	4.0	6.0	6.0
5	0.75	1.5	2.5	4.0	4.0	6.0	6.0	10.0	10.0
8	1.5	2.5	4.0	6.0	6.0	10.0	10.0	16.0	16.0
10	1.5	4.0	4.0	6.0	10.0	10.0	16.0	16.0	25.0
12	2.5	4.0	6.0	10.0	10.0	10.0	16.0	25.0	25.0
15	2.5	6.0	6.0	10.0	16.0	16.0	16.0	25.0	25.0

ALUMINIUM WIRE

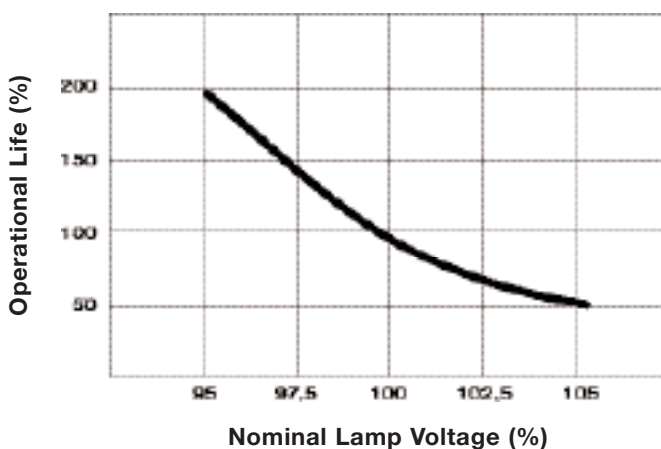
Cable Cross Sections (mm²) for 12V lamps (max. 3.5% Voltage Drop)

Power (W)	20	40	50	80	100	120	150	200	250
Current (A)	1.7	3.3	4.2	6.7	8.3	10	12.5	16.6	20.8
Distance Transformer – Lamp (m)									
1	0.75	0.75	0.75	1.5	1.5	1.5	2.5	2.5	4.0
2	0.75	1.5	1.5	2.5	2.5	4.0	4.0	6.0	6.0
3	0.75	1.5	2.5	4.0	4.0	4.0	6.0	10.0	10.0
5	1.5	2.5	4.0	6.0	6.0	10.0	10.0	16.0	16.0
8	2.5	4.0	6.0	10.0	10.0	16.0	16.0	25.0	25.0
10	2.5	6.0	6.0	10.0	16.0	16.0	25.0	25.0	
12	4.0	6.0	10.0	16.0	16.0	16.0	25.0		
15	4.0	10.0	10.0	16.0	25.0	25.0	25.0		

Directions for Use

OPERATIONAL LIFE

The operational life of a low voltage incandescent halogen lamp depends on the voltage applied.



$$LD_2 = LD_1 \left(\frac{U_1}{U_2} \right)^{13}$$

LD_1 = Lamp life at nominal supply voltage

LD_2 = Lamp life at varying supply voltage

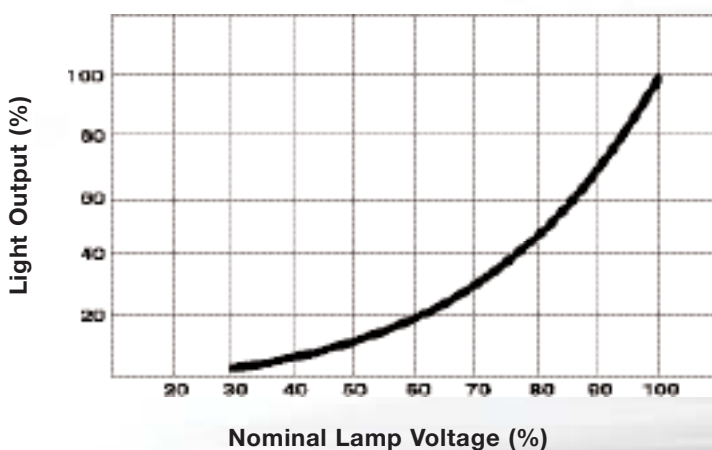
U_1 = Nominal lamp voltage

U_2 = Deviation from nominal lamp voltage

LIGHT LEVEL VARIATIONS

The light output from low voltage incandescent halogen lamps may be varied to an infinite degree.

When selecting a dimmer, ensure that it is suitable for inductive loads (only use dimmer switches intended for use with low voltage halogen lamps).



$$L_2 = L_1 \left(\frac{U_2}{U_1} \right)^{3.4}$$

L_1 = Light output at nominal lamp voltage

L_2 = Light output at varying supply voltage

U_1 = Nominal lamp voltage

U_2 = Deviation from nominal lamp voltage