

Halogen lamps

GE invented and marketed the world's first halogen lamp in 1958.

Halogen lamps provide outstanding light quality - the crisp white light delivers superior colour reproduction. They are more energy efficient than conventional incandescent lamps and offer

a longer life - all within a compact size. Other features include outstanding beam control, UV control, heat reflective coatings that protect display items and a unique 'twist and lock' cap which makes installation easy and safe.



Halogen lamps

Halogen

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Halogen lamps

Low voltage

Product identification

The following glossary of terms and descriptions can help you when checking halogen lamp specifications and explains how to use the product codes when ordering products. Within each product line, lamps are divided into families - within 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

Beam Spread Degrees:
The angle of the cone of light produced by a reflector lamp at 50% of its intensity

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

Volts:
Each lamp's voltage is listed

Product Description:
The lamp's identification code

Length:
Expressed in mm

Pack Quantity:
The number of lamps in one box

Precise™ MR16 ConstantColor™ – UV Control

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	EE Class	Product Code
ø 50 mm – open dichroic mirror												
75	12	EYF/CC	GU5.3	46	50.7	15	11500	3050	4000	10	-	20843
75	12	EYJ/CC	GU5.3	46	50.7	25	5500	3050	4000	10	-	20841
75	12	EYC/CC	GU5.3	46	50.7	42	2000	3050	4000	10	-	20840

Lamp:
Description of lamp type, and product features

Peak Beam Candelas:
Luminous intensity of the lamp beam expressed in candelas

Energy Efficiency Class:
Energy saving code

Cap:
The type of cap fitted

CCT K:
Colour temperature - Kelvin. The visual warmth or coolness of the light. The higher the number the whiter or cooler the light appears

Rated Average Life:
The point in time when 50% of installed lamps are still burning

EYC/CC

ANSI -Code

Product Feature, eg. Cover glass

Precise™ MR16 & MR11

If you're looking for halogen, aim for a Precise™ solution




- Cool, white light, precise beam control, excellent colour performance and a lamp life of up to 6,000 hours.
- Ideal for retail display lighting, decorative lighting and spotlighting of individual features- including heat sensitive items.
- Choose from a wide range of beam angles and select Precise™ MR16 lamps for ultra - violet control.

Choose:
Precise™ ConstantColor™ MR16 for consistent light quality and exceptional long life.
Precise™ Bright MR16 for outstanding light output in a mid range lamp.
Precise™ Alutech™ MR16 for all your heat sensitive halogen fixtures.
Precise™ Bright MR11 for high output, light quality and long life in an extra compact form.

Range of beam angles
GE Precise™ MR16 lamps offer a choice of nominal beam angles from 8° to 60°. The range of beam angles can be used to either highlight single features with a tight focus to provide a wash of ambient lighting and a variety of effects achievable with intermediate beams.

8°angle 24°angle 36°angle 60°angle



Applications:
retail display lighting, decorative lighting and spotlighting of individual features.

Halogen lamps

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Precise™ ConstantColor™ MR16

A long lasting premium quality halogen lamp, the Precise™ ConstantColor™ lamp features revolutionary GE Thin Film Technology to give consistent light output for the 6000 hour life of the lamp. The advanced coating is designed to withstand temperatures of up to 500°C, making it the ideal choice for long-term reliability and consistent light quality.



- Up to 6000 hours life
- 98-99% Lumen maintenance
- Double sided dichroic coating
- With UV control
- The most consistent light output available

Precise™ Bright MR16

Precise™ Bright sets new performance standards offering outstanding long life, outstanding light output and beam quality. Its advanced, computer-designed reflector gives a smooth beam and outstanding light output compared to similar lamps. Precise™ Bright is available in both open and closed forms.



- Up to 4000 hours life
- Outstanding light output and beam quality
- Upgraded reflector
- UV control in both open and closed forms

Precise™ Alutech™ MR16

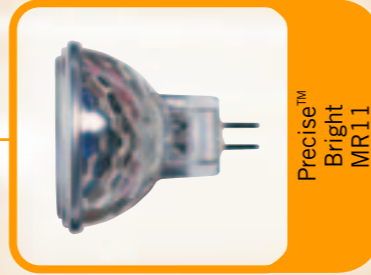
The perfect choice for heat sensitive halogen fixtures. For many years finding a halogen lamp suitable for high technology electronic fixtures was a problem. Precise™ Alutech is the answer. With a GE developed aluminium coating, almost all of the heat is reflected away from the fixture. Throwing heat forward has advantages in downlighters like minimising heat build up in ceiling voids.



- Heat reflected forward
- Ideal for heat sensitive fixtures
- 4000 hours life
- With UV control

Precise™ Bright MR11

The extra compact, high performance halogen lamp GE Precise™ Bright MR11 packs the high output, light quality and long life of halogen into an extra compact form, making it ideal where space is at a premium.



- Extra-compact 35 mm size - perfect for lighting cabinet displays
- 3500 hours life
- Closed lamps with UV control

AR111

The GE AR111 Aluminium faceted reflector for a better beam control has been designed to direct light and heat forward to ensure full protection for the gear. AR111 provides bright and white halogen quality of light (up to 2950K) especially suitable for decorative and architectural lighting.



- Metal cap over filament to avoid direct glare effect and hot point
- UV-block to reduce bleaching effect
- Long life up to 3,000 hours
- 75%+ lumen maintenance to lower maintenance costs

Halogen lamps

Low voltage

Precise™ MR16 ConstantColor™ – UV Control

Dichroic mirror halogen reflector lamps

Precise™ Bright MR16 – UV Control

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – open dichroic mirror											
71	12	EYF/CC	GU5.3	46	50.7	15	11500	3050	4000	10	20843
71	12	EYJ/CC	GU5.3	46	50.7	25	5500	3050	4000	10	20841
71	12	EYC/CC	GU5.3	46	50.7	42	2000	3050	4000	10	20840
ø 50 mm – closed dichroic mirror											
20	12	ESX/CG	GU5.3	50.5	50.7	12	3150	2900	5000	10	20858
20	12	BAB/CG	GU5.3	50.5	50.7	40	475	2900	5000	10	20857
35	12	FRB/CG	GU5.3	50.5	50.7	12	7500	3050	5000	10	20864
35	12	FRA/CG	GU5.3	50.5	50.7	20	3200	3000	5000	10	20860
35	12	FMW/CG	GU5.3	50.5	50.7	40	900	3000	5000	10	20859
50	12	EXT/CG	GU5.3	50.5	50.7	14	8400	3050	6000	10	20872
50	12	EXZ/CG	GU5.3	50.5	50.7	25	2900	3050	6000	10	20871
50	12	EXN/CG	GU5.3	50.5	50.7	40	1500	3050	6000	10	20867
50	12	FNV/CG	GU5.3	50.5	50.7	55	850	3050	6000	10	20865
71	12	EYF/CG	GU5.3	50.5	50.7	15	10400	3050	4000	10	20876
71	12	EYJ/CG	GU5.3	50.5	50.7	25	4550	3050	4000	10	20874
71	12	EYC/CG	GU5.3	50.5	50.7	40	2000	3050	4000	10	20873

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – open dichroic mirror											
20	12	M69/BAB	GU5.3	46	50.7	36	500	3000	4000	10	330712
35	12	M70/FRA	GU5.3	46	50.7	18	3660	3000	4000	10	330713
35	12	M81/FMW	GU5.3	46	50.7	36	1620	3000	4000	10	330716
50	12	M50/EXZ	GU5.3	46	50.7	18	5920	3000	4000	10	330709
50	12	M58/EXN	GU5.3	46	50.7	36	2600	3000	4000	10	330710
50	12	M80/FNV	GU5.3	46	50.7	60	1190	3000	4000	10	330715
ø 50 mm – closed dichroic mirror											
20	12	M268/ESX/CG	GU5.3	50.5	50.7	8	4000	3000	4000	10	330736
20	12	M269/BAB/CG	GU5.3	50.5	50.7	36	450	3000	4000	10	330737
35	12	M270/FRA/CG	GU5.3	50.5	50.7	18	2950	3000	4000	10	330738
35	12	M281/FMW/CG	GU5.3	50.5	50.7	36	1300	3000	4000	10	330745
50	12	M249/EXT/CG	GU5.3	50.5	50.7	8	8000	3000	4000	10	330725
50	12	M250/EXZ/CG	GU5.3	50.5	50.7	18	4750	3000	4000	10	330734
50	12	M258/EXN/CG	GU5.3	50.5	50.7	36	2100	3000	4000	10	330735
50	12	M280/FNV/CG	GU5.3	50.5	50.7	60	950	3000	4000	10	330744

		20W		35W		50W		71W	
		ESX/CG 12°		FRB/CG 12°		EXT/CG 14°		EYF/CG 15°	
m	Øm	lux	Øm	lux	Øm	lux	Øm	lux	
1	0.21	3150	0.21	7500	0.25	8400	0.26	11500	
2	0.42	788	0.42	1875	0.49	2100	0.53	2875	
3	0.63	350	0.63	833	0.74	933	0.79	1278	
4	0.84	197	0.84	469	0.98	525	1.05	719	
5	1.05	126	1.05	300	1.23	336	1.32	460	

		FRA/CG 20°		EXZ/CG 25°		EYJ/CG 25°	
m	Øm	lux	Øm	lux	Øm	lux	
1	0.35	3200	0.44	2900	0.44	4550	
2	0.71	800	0.89	725	0.89	1138	
3	1.06	356	1.33	322	1.33	506	
4	1.41	200	1.77	181	1.77	284	
5	1.76	128	2.22	116	2.22	182	

		BAB/CG 40°		FMW/CG 40°		EXN/CG 40°		EYC/CG 40°	
m	Øm	lux	Øm	lux	Øm	lux	Øm	lux	
1	0.73	475	0.73	900	0.73	1500	0.73	2000	
2	1.46	119	1.46	225	1.46	375	1.46	500	
3	2.18	53	2.18	100	2.18	167	2.18	222	
4	2.91	30	2.91	56	2.91	94	2.91	125	
5	3.64	19	3.64	36	3.64	60	3.64	80	

		FNV/CG 55°	
m	Øm	lux	
1	1.04	850	
2	2.08	213	
3	3.12	94	
4	4.16	53	
5	5.21	34	

		20W		35W		50W	
		Open	Closed	Open	Closed	Open	Closed
		8°		8°		8°	
m	Øm	lux	Øm	lux	Øm	lux	
1	0.14	4000	0.14	8000			
2	0.28	1000	0.28	2000			
3	0.42	444	0.42	889			
4	0.56	250	0.56	500			
5	0.70	160	0.70	320			

		18°		18°		
m	lux	Øm	lux	Øm	lux	
1	3660	0.32	2950	5920	0.32	4750
2	915	0.63	738	1480	0.63	1188
3	407	0.95	328	658	0.95	528
4	229	1.27	184	370	1.27	297
5	146	1.58	118	237	1.58	190

		36°		36°		36°			
m	lux	Øm	lux	Øm	lux	Øm	lux		
1	500	0.65	450	1620	0.65	1300	2600	0.65	2100
2	125	1.30	113	405	1.30	325	650	1.30	525
3	56	1.95	50	180	1.95	144	289	1.95	233
4	31	2.60	28	101	2.60	81	163	2.60	131
5	20	3.25	18	65	3.25	52	104	3.25	84

		60°	
m	lux	Øm	lux
1	1190	1.15	950
2	298	2.31	238
3	132	3.46	106
4	74	4.62	59
5	48	5.77	38

Halogen lamps

Low voltage

MR16 Start

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – open dichroic mirror											
20	12	M68/ESX/EC	GU5.3	47.6	50.5	12	3500	2900	2000	20	38003
20	12	M69/BAB/EC	GU5.3	47.6	50.5	36	500	2900	2000	20	38000
35	12	FRB/EC	GU5.3	47.6	50.5	12	7500	3000	2000	20	38004
35	12	M81/FMW/EC	GU5.3	47.6	50.5	36	925	3000	2000	20	38001
50	12	M49/EXT/EC	GU5.3	47.6	50.5	12	9500	3000	2000	20	38005
50	12	M50/EXZ/EC	GU5.3	47.6	50.5	24	2700	3000	2000	20	39874
50	12	M58/EXN/EC	GU5.3	47.6	50.5	36	1500	3000	2000	20	38002
50	12	M80/FNV/EC	GU5.3	47.6	50.5	55	630	3000	2000	20	39881
ø 50 mm – closed dichroic mirror											
20	12	M268/ESX/CG/EC	GU5.3	47.6	50.5	12	3150	2900	2000	20	38012
20	12	M269/BAB/CG/EC	GU5.3	47.6	50.5	36	450	2900	2000	20	38006
35	12	FRB/CG/EC	GU5.3	47.6	50.5	12	6750	3000	2000	20	38013
35	12	M281/FMW/CG/EC	GU5.3	47.6	50.5	36	830	3000	2000	20	38007
50	12	M249/EXT/CG/EC	GU5.3	47.6	50.5	12	8550	3000	2000	20	38014
50	12	M250/EXZ/CG/EC	GU5.3	47.6	50.5	24	2700	3000	2000	20	39611
50	12	M258/EXN/CG/EC	GU5.3	47.6	50.5	36	1350	3000	2000	20	38011
50	12	M280/FNV/CG/EC	GU5.3	47.6	50.5	55	630	3000	2000	20	39236

Precise™ Alutech™ MR16 – UV Control

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – closed aluminised coating											
20	12	M269/BAB/CG/AL	GU5.3	50.5	50.7	36	450	3000	3000	10	35472
35	12	M281/FMW/CG/AL	GU5.3	50.5	50.7	36	1300	3000	3000	10	35471
50	12	M258/EXN/CG/AL	GU5.3	50.5	50.7	36	1800	3000	3000	10	35470
50	12	M280/FNV/CG/AL	GU5.3	50.5	50.7	60	700	3000	3000	10	35467

20W		35W		50W	
M269/BAB/CG/AL		M281/FMW/CG/AL		M258/EXN/CG/AL	
36°		36°		36°	
m	Øm lux	Øm lux	Øm lux	Øm lux	Øm lux
1	0.65 450	0.65 1300	0.65 1800		
2	1.30 113	1.30 325	1.30 450		
3	1.95 50	1.95 144	1.95 200		
4	2.60 28	2.60 81	2.60 113		
5	3.25 18	3.25 52	3.25 72		
		M280/FNV/CG/AL		60°	
m	Øm lux	Øm lux	Øm lux	Øm lux	Øm lux
1	1.15 700				
2	2.31 175				
3	3.46 78				
4	4.62 44				
5	5.77 28				

Precise™ MR11 – UV Control

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Energy Efficiency Class	Product Code
ø 35 mm – open dichroic mirror												
12	12	M64/FTA	GU4	40	35.3	8	4400	2900	2000	10		30759 19637
20	12	M52/FTB	GU4	40	35.3	10	4400	2900	3500	10		30755
20	12	M51/FTC	GU4	40	35.3	17	2000	2900	3500	10		30754 19630
20	12	M62/FTD	GU4	40	35.3	26	550	2900	3500	10		30773 19626
35	12	M65/FTE	GU4	40	35.3	10	7000	2900	3500	10		30760 19641
35	12	M66/FTF	GU4	40	35.3	21	2300	2900	3500	10		30774 19635
35	12	M199/FTH	GU4	40	35.3	26	1300	2900	3500	10		30890 19634
20	12	M54/FST	B15D	41	35.3	16	1760	2900	3500	10		30778 19687
20	12	M63/FSV	B15D	41	35.3	30	600	2900	3500	10		30780
ø 35 mm – closed dichroic mirror												
12	12	M264/FTA/CG	GU4	45	35.3	8	3960	3200	2000	10		30768 19639
20	12	M252/FTB/CG	GU4	45	35.3	10	3960	2900	3500	10		30763 19638
20	12	M251/FTC/CG	GU4	45	35.3	17	1800	2900	3500	10		30762 19636
20	12	M262/FTD/CG	GU4	45	35.3	26	490	2900	3500	10		30775 19625
35	12	M265/FTE/CG	GU4	45	35.3	10	6300	3200	3500	10		30769 19640
35	12	M266/FTF/CG	GU4	45	35.3	21	2070	2900	3500	10		30777 19627

		Cap: GU4		Cap: GU4		Cap: B15D		Cap: GU4	
		12W		20W		20W		35W	
		8°		10°		20W		10°	
m	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux
1	4400	0.14 3960	4400	0.17 3960	7000	0.17 6300			
2	1100	0.28 990	1100	0.35 990	1750	0.35 1575			
3	489	0.42 440	489	0.52 440	778	0.52 700			
4	275	0.56 248	275	0.70 248	438	0.70 394			
5	176	0.70 158	176	0.87 158	280	0.87 252			
		17°		16°		21°			
m	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux
1	2000	0.30 1800	1760	0.28 2300	2300	0.37 2070			
2	500	0.60 450	440	0.56 575	575	0.74 518			
3	222	0.90 200	196	0.84 256	256	1.11 230			
4	125	1.20 113	110	1.12 144	144	1.48 129			
5	80	1.49 72	70	1.41 92	92	1.85 83			
		26°		30°		26°			
m	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux	Øm lux	lux
1	550	0.46 490	600	0.54 1300	1300	0.46 46			
2	138	0.92 123	150	1.07 325	325	0.92 46			
3	61	1.39 54	67	1.61 144	144	1.39 46			
4	34	1.85 31	38	2.14 81	81	1.85 46			
5	22	2.31 20	24	2.68 52	52	2.31 46			

Halogen lamps

Low voltage

Twist & Lock



Installing halogen?
GE's Twist & Lock
makes it easy

- Twist and Lock (TAL) system enables you to locate the lamp with one simple, foolproof action.
- The first low voltage halogen lamp designed for easy installation.
- No more installation problems or poor connections caused by bent or broken connecting pins, so no more wasted lamps.

GE's Twist And Lock's tough mechanical bond and greater electrical contact between lamp and base means:

No retaining springs or rings to fit or release - offering faster lamp installation and replacement.

No risk of arcing - improving electrical reliability and safety.



TAL 50 lamps are 50 mm dichroic mirror lamps with ConstantColor™ coatings to give exceptional long life and consistent light quality.

3,500 hours life - up to 50% longer than standard dichroic lamps.

98% lumen maintenance producing near maximum light output

even at 3,500 hours. **Consistent white light** with no colour shift throughout the rated life of the lamp.

TAL 100 lamps are 100 mm reflector lamps designed for long life and extra high light intensity.

Up to 3,500 hours life Exceptional light intensity up to 17% higher than the nearest compatible lamp.

TAL 50 ConstantColor™ – UV Control

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – closed dichroic mirror											
20	12	TAL 414/CC	GU7	50.5	50.7	11	4500	2900	3500	10	30927
20	12	TAL 415/CC	GU7	50.5	50.7	24	900	2900	3500	10	30928
20	12	TAL 416/CC	GU7	50.5	50.7	36	450	2900	3500	10	30931
35	12	TAL 417/CC	GU7	50.5	50.7	8	8100	2900	3500	10	30932
35	12	TAL 418/CC	GU7	50.5	50.7	18	3240	2900	3500	10	30933
35	12	TAL 419/CC	GU7	50.5	50.7	38	873	2900	3500	10	30934
50	12	TAL 420/CC	GU7	50.5	50.7	10	10800	2900	3500	10	30901
50	12	TAL 421/CC	GU7	50.5	50.7	21	3300	2900	3500	10	30900
50	12	TAL 422/CC	GU7	50.5	50.7	38	1395	2900	3500	10	30899
50	12	TAL 423/CC	GU7	50.5	50.7	60	630	2900	3500	10	30935

20W			35W		50W	
TAL 414 11°			TAL 417 8°		TAL 420 10°	
m	Øm	lux	Øm	lux	Øm	lux
1	0.19	4500	0.14	8100	0.17	10800
2	0.39	1125	0.28	2025	0.35	2700
3	0.58	500	0.42	900	0.52	1200
4	0.77	281	0.56	506	0.70	675
5	0.96	180	0.70	324	0.87	432

TAL 415 24°			TAL 418 18°		TAL 421 21°	
m	Øm	lux	Øm	lux	Øm	lux
1	0.43	900	0.32	3240	0.37	3300
2	0.85	225	0.63	810	0.74	825
3	1.28	100	0.95	360	1.11	367
4	1.70	56	1.27	203	1.48	206
5	2.13	36	1.58	130	1.85	132

TAL 416 36°			TAL 419 38°		TAL 422 38°	
m	Øm	lux	Øm	lux	Øm	lux
1	0.65	450	0.69	873	0.69	1395
2	1.30	113	1.38	218	1.38	349
3	1.95	50	2.07	97	2.07	155
4	2.60	28	2.75	55	2.75	87
5	3.25	18	3.44	35	3.44	56

TAL 423 60°		
m	Øm	lux
1	0.69	1395
2	1.38	349
3	2.07	155
4	2.75	87
5	3.44	56

Applications:
retail, displays, reception areas and residential interior lighting.

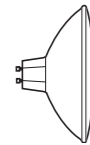
TAL downlighters welcome visitors to Timothy Guy Design's studio in Truro, UK.

Halogen lamps

Low voltage

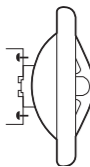
Other halogen mirror lamps

TAL 100



Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 100 mm – closed metal reflector											
35	12	TAL 138	GU7			4	33000	3000	3500	20	29408
50	12	TAL 139	GU7			6	48000	3000	3500	20	29409
50	12	TAL 140	GU7			21	3300	3000	3500	20	29410

AR111 – UV Control



Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 111 mm – aluminium reflector, metal cap over filament											
35	12	AR111 35W12V SP	G53	67	111	8	11000	2800	2000	10	10774*
35	12	AR111 35W12V FL	G53	67	111	24	2400	2800	2000	10	10775*
50	12	AR111 50W12V SP	G53	67	111	8	17800	2850	2000	10	10766
50	12	AR111 50W12V FL	G53	67	111	24	3000	2850	2000	10	10767
75	12	AR111 75W12V SP	G53	67	111	8	23500	2900	2000	10	10768
75	12	AR111 75W12V FL	G53	67	111	24	4750	2900	2000	10	10769
75	12	AR111 75W12V WFL	G53	67	111	45	1600	2900	2000	10	10771
100	12	AR111 100W12V SP	G53	67	111	8	43000	2950	2000	10	10779*
100	12	AR111 100W12V FL	G53	67	111	24	7700	2950	2000	10	10781*
100	12	AR111 100W12V WFL	G53	67	111	45	2400	2950	2000	10	10783*

*available from Q1 2004

Lampholders - Twist and Lock - TAL



Lead Length	Product Description	Height of Socket mm	Pack Qty	Product
150	GL1252 BR2V/150	11*	500	31819
250	GL1252 BR2V/250	11*	500	31646
150	GL1252 BR8V/150	16.5*	500	32078
250	GL1252 BR8V/250	16.5*	500	32074

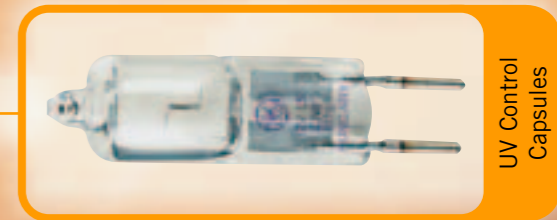
Precise™ Standard MR16 – UV Control



Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
ø 50 mm – open dichroic mirror											
20	12	M69/BAB/STD	GU5.3	46	50.7	30	500	3000	3000	10	93419
35	12	M70/FRA/STD	GU5.3	46	50.7	18	3660	3000	3000	10	93761
35	12	M81/FMW/STD	GU5.3	46	50.7	30	1620	3000	3000	10	93423
50	12	M50/EXZ/STD	GU5.3	46	50.7	18	5920	3000	3000	10	93760
50	12	M58/EXN/STD	GU5.3	46	50.7	30	2600	3000	3000	10	93417
50	12	M80/FNV/STD	GU5.3	46	50.7	55	1190	3000	3000	10	93421
ø 50 mm – closed dichroic mirror											
20	12	M269/BAB/CG/STD	GU5.3	50.5	50.7	30	450	3000	3000	10	93418
35	12	M270/FRA/CG/STD	GU5.3	50.5	50.7	18	2950	3000	3000	10	93763
35	12	M281/FMW/CG/STD	GU5.3	50.5	50.7	30	1300	3000	3000	10	93422
50	12	M250/EXZ/CG/STD	GU5.3	50.5	50.7	18	4750	3000	3000	10	93762
50	12	M258/EXN/CG/STD	GU5.3	50.5	50.7	30	2100	3000	3000	10	93383
50	12	M280/FNV/CG/STD	GU5.3	50.5	50.7	55	950	3000	3000	10	93420

UV Control Capsules

All the power, quality and precision of halogen - with UV control



The ultra violet light emitted by standard halogen lamps can cause fading or bleaching of sensitive display items.

GE's UV Control Capsules significantly reduce the effect of bleaching by minimising UV-B and UV-C radiation.

GE's UV Control Capsules give maximum light output and colour quality. Range includes axial filament types for use in linear miniature reflectors and uplighters, providing: Wide, smooth beam with accurate light cut-off - perfect for uniform lighting effects. Maximum versatility - common light-centres across a range of wattages let you use one light fitting design for a range of applications.

Applications: retail, display and task lighting.

Halogen lamps

Mains voltage

Low Voltage single ended halogen capsules UV-Control

Watts	Volts	Product Description	Cap	Length	LCL	Diameter	Lumen	Life (h)	Pack Qty	Product Code
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Hard glass capsules with transversal filament

5	12	M9/H5 G4	G4	33	19.5	9	60	2000	20	42959
10	12	M11/H10 G4	G4	33	19.5	9	140	2000	20	34674

Quartz glass capsules with transversal filament

10	6	M29/Q10 G4	G4	33	19.5	9	200	100	20	34720
10	6	M42/Q10 G4	G4	33	19.5	9	140	2000	20	34728
20	6	M30/ESB/Q20 G4	G4	33	19.5	9	450	100	20	34718
20	6	M34/FHE/Q20 G4	G4	33	19.5	9	350	2000	20	34719
20	12	M35/Q20 G4	G4	33	19.5	9	400	250	20	34714
20	12	M47/Q20 G4	G4	33	19.5	9	380	2000	20	34715
20	12	M312/Q20/GY6.35	GY6.35	44	30.0	11	350	2000	20	34713
35	12	M95/Q35/GY6.35	GY6.35	44	30.0	11	550	3000	20	34708
50	12	M32/Q50 GY6.35	GY6.35	44	30.0	11	930	4000	20	34702
75	12	M313/Q75/GY6.35	GY6.35	44	30.0	11	1350	2000	20	34682
100	12	M28/Q100 GY6.35	GY6.35	44	30.0	11	2200	3000	20	34676
50	24	M89/Q50/GY6.35 24V	GY6.35	44	30.0	11	750	2000	20	34684
100	24	M67/Q100GY6.35 24V	GY6.35	44	30.0	11	2000	2000	20	34663

Quartz glass capsules with axial filament

35	6	M116/Q35/GY6.35	GY6.35	44	30.0	11	550	2000	20	34711
20	12	M76/Q20/GY6.35	GY6.35	44	30.0	11	300	4000	20	34712
35	12	M75/Q35/GY6.35	GY6.35	44	30.0	11	600	4000	20	34710
50	12	M74/Q50/GY6.35	GY6.35	44	30.0	11	900	4000	20	34703
75	12	M73/Q75/GY6.35	GY6.35	44	30.0	11	1350	4000	20	34683
100	12	M180/Q100/GY6.35	GY6.35	44	30.0	11	2150	4000	20	34664

Low pressure halogen capsules with axial filament

10	12	Q10T2.5/12V G4	G4	33	22	9	140	2000	20	35705
20	12	Q20T2.5/12V G4	G4	33	22	9	320	2000	20	35710
20	12	Q20T3/12V GY6.35	GY6.35	44	30	11	300	2000	20	35696
35	12	Q35T3/12V GY6.35	GY6.35	44	30	11	600	2000	20	35699
50	12	Q50T3/12V GY6.35	GY6.35	44	30	11	950	2000	20	35700
75	12	Q75T3/12V GY6.35	GY6.35	44	30	11	1350	2000	20	35701

Low Voltage single ended halogen capsules START range

Watts	Volts	Product Description	Cap	Length	LCL	Diameter	Lumen	Life (h)	Pack Qty	Product Code
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Quartz glass capsules with transversal filament

10	12	M11/Q10/G4 ST	G4	33	22	9	100	1000	20	12708
20	12	M47/Q20/G4 ST	G4	33	22	9	250	1000	20	12711
35	12	M95/Q35/GY6.35 ST	GY6.35	44	30	11	480	1000	20	12712
50	12	M32/Q50/GY6.35 ST	GY6.35	44	30	11	800	1000	20	12713
100	12	Q100/GY6.35 ST	GY6.35	44	30	11	1950	1000	20	12718

Mains voltage halogen reflector

lamp with aluminium coated reflector directs most of its heat to the front. With their distinct MR 16 look, the cool beam and aluminium lamps are the most compact lamps of their kind available. Because the lamp can be connected directly to the mains supply, the use of bulky and costly transformers is not necessary and offers benefits for both consumers as well as luminaire manufacturers.



MR 16 Mains



- Small size
- High efficacy
- Excellent white light

G9 capsule

is suitable for a wide variety of applications in display, accent lighting and general lighting where halogen light quality is essential with the ease of mains voltage where no transformer is required.



G9



- G9 capsule has been designed to
- operate on mains voltage, no transformer required
- offer a miniature halogen solution to allow creative and compact design of fittings
- be fully compatible with ConstantColor™ CMH 3000 K lamps
- use G9 Cap for easy retrofit of the lamps used in open fixtures
- meet IEC standards IEC60357, IEC60432-2 and IEC60061-1 for performance, safety and base compliance.

Halogen lamps

Mains voltage

Mains voltage halogen aluminium reflector lamps

MR16 Mains

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Colour	Candela	CCT (K)	Life (h)	Pack Qty	Product Code
ø 50 mm – closed aluminium coated reflector												
50	230	Q50MR16/230/SP	GU10	55	51	25		1250	2900	2000	50	91770
50	230	Q50MR16/230/FL	GU10	55	51	50		600	2900	2000	50	91771
50	240	Q50MR16/240/SP	GU10	55	51	25		1250	2900	2000	50	91772
50	240	Q50MR16/240/FL	GU10	55	51	50		600	2900	2000	50	91773

MR16 Mains Start

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Colour	Candela	CCT (K)	Life (h)	Pack Qty	Product Code
ø 50 mm – closed aluminium coated reflector												
20	230	Q20MR16/230/FL	GU10	55	51	36		200	2700	1500	10	10898
35	230	Q35MR16/230/FL	GU10	55	51	36		400	2700	1500	10	10896
50	230	Q50MR16/230/FL	GU10	55	51	36		600	2700	1500	10	92729
20	240	Q20MR16/240/FL	GU10	55	51	36		200	2700	1500	10	10859
35	240	Q35MR16/240/FL	GU10	55	51	36		400	2700	1500	10	10857
50	240	Q50MR16/240/FL	GU10	55	51	36		600	2700	1500	10	92730

MR16 Mains Start - Coloured

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Colour	Candela	CCT (K)	Life (h)	Pack Qty	Product Code
ø 50 mm – Closed												
50	240	Q50MR16/240/FL START	GU10	55	51	36	RED			1500	10	12988
50	240	Q50MR16/240/FL START	GU10	55	51	36	BLUE			1500	10	12995
50	240	Q50MR16/240/FL START	GU10	55	51	36	GREEN			1500	10	12998
50	240	Q50MR16/240/FL START	GU10	55	51	36	YELLOW			1500	10	13003

Single ended mains voltage capsule - Tech Range

Watts	Volts	Product Description	Cap	Length	Diameter	Candela	CCT (K)	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
Halogen G9 Tech – UV Control - 2800k											
25	230	G9 25W 230V Clear	G9	52	13	260	2800	1500	10	D	10806
25	230	G9 25W 230V Frosted	G9	52	13	245	2800	1500	10	E	10810
40	230	G9 40W 230V Clear	G9	52	13	490	2800	1500	10	D	10813
40	230	G9 40W 230V Frosted	G9	52	13	465	2800	1500	10	E	10814
60	230	G9 60W 230V Clear	G9	52	13	820	2800	2000	10	D	10816
60	230	G9 60W 230V Frosted	G9	52	13	780	2800	2000	10	E	10817
75	230	G9 75W 230V Clear	G9	52	13	1100	2800	2000	10	D	10818
75	230	G9 75W 230V Frosted	G9	52	13	1045	2800	2000	10	D	10820
25	240	G9 25W 240V Clear	G9	52	13	260	2800	1500	10	D	10809
25	240	G9 25W 240V Frosted	G9	52	13	245	2800	1500	10	E	10811
40	240	G9 40W 240V Clear	G9	52	13	490	2800	1500	10	D	10796
40	240	G9 40W 240V Frosted	G9	52	13	465	2800	1500	10	E	10815
60	240	G9 60W 240V Clear	G9	52	13	820	2800	2000	10	D	10803
60	240	G9 60W 240V Frosted	G9	52	13	780	2800	2000	10	E	10804
75	240	G9 75W 240V Clear	G9	52	13	1100	2800	2000	10	D	10819
75	240	G9 75W 240V Frosted	G9	52	13	1045	2800	2000	10	D	10821

Halogen-IR™ Linear



Choose Halogen-IR™ technology and start saving money

- GE Halogen-IR™ (Infra-red) lamps use a unique GE POW-IR – Film coating that increases lamp efficiency by more than 25%.
- These lamps also turn invisible infra-red light into extra visible light.

GE's Halogen IR™ is one of the most efficient halogen lamps in the world.

A whiter light with excellent colour rendering. Maximum light where you need it.

GE's HIR Linear offers you: Up to 25% energy savings for the same light output. Up to 25% less heat output than a standard halogen linear.

Applications:
retail, displays, reception areas and exterior floodlighting.

'The Old Bank' Happit store façade, energy-saving exterior floodlighting in London, UK.

Halogen lamps

Mains voltage

Mains voltage double-ended halogen lamps

Watts	Volts	Product Description	Cap	Length	Diameter	Fuse	Candela	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
Start clear											
200	230	K11/230V ST	R7s	117.6	8	2A	2850	1500	10	E	93471
300	230	K9/230V ST	R7s	117.6	8	2A	4600	1500	10	E	93472
500	230	K1/230V ST	R7s	117.6	8	4A	9000	1500	10	E	93473
200	240	K11/240V ST	R7s	117.6	8	2A	2850	1500	10	E	93475
300	240	K9/240V ST	R7s	117.6	8	2A	4600	1500	10	E	93476
500	240	K1/240V ST	R7s	117.6	8	4A	9000	1500	10	E	93477

Standard clear

100	120	K14/Q100 120V/CL	R7s	78.3	8	-	1500	3000	10	D	91746
150	120	K12/Q150 120V/CL	R7s	78.3	8	-	2300	3000	10	E	91747
100	230	K14/Q100 T2.5/CL	R7s	78.3	8	-	1600	2000	10	D	91427
150	230	K12/Q150 T2.5/CL	R7s	78.3	8	-	2600	2000	10	D	91428
200	230	K27/Q150 T2.5/CL	R7s	78.3	8	-	3400	2000	10	D	91430
250	230	K15/Q250 T2.5/CL	R7s	78.3	8	-	4000	2000	10	E	91431
100	240	K14/Q100 T2.5/CL	R7s	78.3	8	-	1600	2000	10	D	91506
150	240	K12/Q150 T2.5/CL	R7s	78.3	8	-	2600	2000	10	D	91507
200	240	K27/Q150 T2.5/CL	R7s	78.3	8	-	3400	2000	10	D	91508
250	240	K15/Q250 T2.5/CL	R7s	78.3	8	-	4000	2000	10	E	91509
150	120	K28/Q150 120V/CL	R7s	117.6	8	2A	2300	2000	10	E	91748
200	120	K11/Q200 120V/CL	R7s	117.6	8	4A	3300	2000	10	E	91749
300	120	K9/Q300 120V/CL	R7s	117.6	8	4A	6200	2000	10	D	91750
500	120	K1/Q500 120V/CL	R7s	117.6	8	6.3A	11000	2000	10	n/a	29161
1000	120	K4/Q1000 120V/CL	R7s	189.1	10	-	22000	2000	10	-	29177
100	230	K41/Q100 CL	R7s	117.6	8	2A	1000	1000	10	F	91432
150	230	K28/Q150 T2.5/CL	R7s	117.6	8	2A	2100	2000	10	E	91433
200	230	K11/Q200 T2.5/CL	R7s	117.6	8	2A	3100	2000	10	E	91434
250	230	K32/Q250 T2.5/CL	R7s	117.6	8	2A	4000	2000	10	E	91435
300	230	K9/Q300 T2.5/CL	R7s	117.6	8	2A	5100	2000	10	E	91436
500	230	K1/Q500 T2.5/CL	R7s	117.6	8	4A	9800	2000	10	D	29165
750	230	K3/Q750 T3/CL	R7s	189.1	10	6.3A	15000	2000	10	-	29173
1000	230	K4/Q1000 T3/CL	R7s	189.1	10	6.3A	21000	2000	10	-	29180
1000	230	K10/1000 T3/CL	R7s	254.1	10	6.3A	21000	2000	6	-	43711
1500	230	K5/Q1500 T3/CL	R7s	254.1	10	10A	32000	1000	10	-	29184
2000	230	K6/Q2000 T3/CL	Fa4	334.4	10	10A	44000	2000	10	-	29190
2000	230	K8/Q2000 T3/CL	R7s	330.8	10	10A	44000	1000	10	-	30886
150	240	K28/Q150 T2.5/CL	R7s	117.6	8	2A	2100	2000	10	E	91511
200	240	K11/Q200 T2.5/CL	R7s	117.6	8	2A	3100	2000	10	E	91512
250	240	K32/Q250 T2.5/CL	R7s	117.6	8	2A	4000	2000	10	E	91513
300	240	K9/Q300 T2.5/CL	R7s	117.6	8	2A	5100	2000	10	E	91514
500	240	K1/Q500 T2.5/CL	R7s	117.6	8	4A	9700	2000	10	D	29168
750	240	K3/Q750 T3/CL	R7s	189.1	10	6.3A	15000	2000	10	-	29176
1000	240	K4/Q1000 T3/CL	R7s	189.1	10	6.3A	21000	2000	10	-	29181
1000	240	K10/1000 T3/CL	R7s	254.1	10	6.3A	21000	2000	6	-	43712
1500	240	K5/Q1500 T3/CL	R7s	254.1	10	10A	32000	1000	10	-	29187
2000	240	K6/Q2000 T3/CL	Fa4	334.4	10	10A	44000	2000	10	-	29191
2000	240	K8/Q2000 T3/CL	R7s	330.8	10	10A	44000	1000	10	-	30877

78 mm lamps are internally fused, and universal operating position.
Other lamps operating position horizontal $\pm 4^\circ$.

Halogen IR™

225	230	K9/Q225 T3/230V HIR	R7s	117.6	10	2A	5000	3000	10	C	91515
375	230	K1/Q375 T3/230V HIR	R7s	117.6	10	2A	9400	3000	10	C	31598
225	240	K9/Q225 T3/240V HIR	R7s	117.6	10	2A	5000	3000	10	C	91515
375	240	K1/Q375 T3/240V HIR	R7s	117.6	10	2A	9400	3000	10	C	31598

Operating position horizontal $\pm 4^\circ$.

Halogen PAR 30

Upgrade to GE Halogen using your existing light fittings



Halogen PAR 30

•GE Halogen PAR

lamps are a range of direct replacements for standard incandescent reflector lamps.

•GE Halogen PAR

lamps run on mains voltage, so you no longer need transformers or extra wiring to enjoy the crisp white light and energy-saving properties of halogen.

GE PAR 20, PAR 25 and PAR 30 lamps are cost-saving direct replacements for 63mm, 80mm and 95mm incandescent reflector lamps.

They offer you:

- Up to 150% longer life
- Up to 50% energy savings
- Cool white light with excellent colour rendering and a cool beam.
- Maximum light where you need it.

Applications:

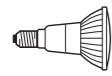
retail, displays, museums, conference rooms, private offices and residential interior lighting.

Halogen lamps

Mains voltage

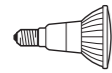
HALOGEN PAR LAMPS

PAR 16



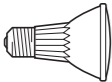
Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
Flood											
40	230	40PAR16/230/FL	E14	79	50	25	950	2900	2000	15	92697
40	240	40PAR16/240/FL	E14	79	50	25	950	2900	2000	15	92698

PAR 16 Start



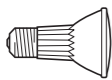
Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
Flood											
50	230	Q50PAR16/230/FL	E14	79	51	36	800	2700	1500	10	92823
50	240	Q50PAR16/240/FL	E14	79	51	36	800	2700	1500	10	92824

PAR 20



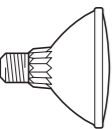
Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
Spot											
50	230	50PAR20/230/SP	E27	91	64.5	10	3000	2750	2000	1/15	93459
50	240	50PAR20/240/SP	E27	91	64.5	10	3000	2750	2000	1/15	93463
Flood											
50	230	50PAR20/230/FL	E27	91	64.5	30	1000	2750	2000	1/15	93460
50	240	50PAR20/240/FL	E27	91	64.5	30	1000	2750	2000	1/15	93464

PAR 25



Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
Spot											
50	230	50PAR25/230/SP	E27	108	81	10	4000	2900	2500	15	91776
75	230	75PAR25/230/SP	E27	108	81	10	5500	2900	3000	15	91777
50	240	50PAR25/240/SP	E27	108	81	10	4000	2900	3000	15	91778
75	240	75PAR25/240/SP	E27	108	81	10	5500	2900	3000	15	92164
Flood											
50	230	50PAR25/230/FL	E27	108	81	25	1100	2900	2500	15	91774
75	230	75PAR25/230/FL	E27	108	81	25	1300	2900	3000	15	91775
50	240	50PAR25/240/FL	E27	108	81	25	1100	2900	3000	15	92163
75	240	75PAR25/240/FL	E27	108	81	25	1300	2900	3000	15	92165

PAR 30



Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
Spot											
75	230	75PAR30/230/SP	E27	90.5	97	10	6900	2900	2000	15	93461
100	230	100PAR30/230/SP	E27	90.5	97	10	10000	2900	3000	15	32483
75	240	75PAR30/240/SP	E27	90.5	97	10	6900	2900	2000	15	93465
100	240	100PAR30/240/SP	E27	90.5	97	10	10000	2900	3000	15	32481
Flood											
75	230	75PAR30/230/FL	E27	90.5	97	30	2200	2900	2000	15	93462
100	230	100PAR30/230/FL	E27	90.5	97	30	3500	2900	3000	15	32484
75	240	75PAR30/240/FL	E27	90.5	97	30	2200	2900	2000	15	93466
100	240	100PAR30/240/FL	E27	90.5	97	30	3500	2900	3000	15	32482

PAR 16 - PAR 20 - PAR 25 - PAR 30

m	40W		50W		75W		100W			
	PAR 16	PAR 16 Start	PAR 20 Spot 10°	PAR 25 Spot 10°	PAR 25 PAR 30 Spot 10°	PAR 30 Spot 10°	PAR 25 PAR 30 Spot 10°	PAR 30 Spot 10°		
	Øm	lux	Øm	lux	Øm	lux	Øm	lux		
1	0.17	3000	0.17	4000	0.17	5500	0.17	6900	0.17	10000
2	0.35	750	0.35	1000	0.35	1375	0.35	1725	0.35	2500
3	0.52	333	0.52	444	0.52	611	0.52	767	0.52	1111
4	0.70	188	0.70	250	0.70	344	0.70	431	0.70	625
5	0.87	120	0.87	160	0.87	220	0.87	276	0.87	400

m	Flood 25°		Flood 36°		Flood 30°		Flood 25°		Flood 25°		Flood 30°		Flood 30°	
	Øm	lux	Øm	lux	Øm	lux	Øm	lux	Øm	lux	Øm	lux	Øm	lux
1	0.44	950	0.65	800	0.54	1000	0.44	1100	0.44	1300	0.54	2200	0.54	3500
2	0.89	238	1.30	200	1.07	250	0.89	275	0.89	325	1.07	550	1.07	875
3	1.33	106	1.95	89	1.61	111	1.33	122	1.33	144	1.61	244	1.61	389
4	1.77	59	2.60	50	2.14	63	1.77	69	1.77	81	2.14	138	2.14	219
5	2.22	38	3.25	32	2.68	40	2.22	44	2.22	52	2.68	88	2.68	140

PAR 36

Watts	Volts	Product Description	Cap	Length	Diameter	Beam angle	Candela	CCT (K)	Life(h)	Pack Qty	Product Code
35	12	35PAR36/VNSP/H	Screw	70	114	5	25000		4000	12	19873
35	12	35PAR36/WFL/H	Screw	70	114	30	900		4000	12	19877
50	12	50PAR36/WFL/H	Screw	70	114	30	1300	3000	4000	12	19880

m	35W		35W		50W	
	VNSP/H	WFL/H	WFL/H	WFL/H	WFL/H	WFL/H
	5°	lux	30°	lux	30°	lux
1	0.09	25000	0.54	900	0.54	1300
2	0.17	6250	1.07	225	1.07	325
3	0.26	2780	1.61	100	1.61	140
4	0.35	1560	2.14	55	2.14	80
5	0.44	1000	2.68	35	2.68	50

HALOGEN PAR LAMPS

Watts	Volts	Product Description	Cap	Candela	Beam angle*	Beam angle**	CCT (K)	Life(h)	Pack Qty	Product Code
PAR 56										
500	120	Q500PAR56NSP	GX16d	96000	32 x 15*	13 x 8**	2950	6	4000	43494
500	120	Q500PAR56MFL	GX16d	43000	42 x 20*	26 x 10**	2950	6	4000	43495
500	120	Q500PAR56WFL	GX16d	19000	66 x 34*	44 x 20**	2950	6	4000	43496

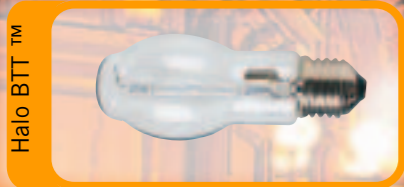
PAR 64										
1000	120	Q1000PAR64NSP	GX16d	200000	31 x 14*	15 x 8**	3000	6	4000	43497
1000	120	Q1000PAR64MFL	GX16d	80000	45 x 22*	28 x 12**	3000	6	4000	43498
1000	120	Q1000PAR64WFL	GX16d	33000	75 x 45*	48 x 24**	3000	6	4000	43499

*10% peak cd **50% peak cd

Halogen lamps

Mains voltage

HaloGlobe™ & Halo BTT™



Beauty and cost- savings for your decorative lights

- GE HaloGlobe™ and Halo BTT™ lamps combine the efficiency, economy and performance of halogen with classic lamp good looks.
- Higher light output and improved colour rendering make them ideal in the most demanding locations.

GE HaloGlobe™ - the replacement for Decor 95 mm lamps is available in white, 60, 100 and 150W.
 GE Halo BTT™ - the replacement for GLS lamps is available in clear, 60, 100W and 150W.

Crisper, whiter light with improved colour rendering.
Improved efficiency with up to 50% more light for the same energy consumption.
Save maintenance costs with up to two times longer life.

Versatility and flexibility You can install these lamps at any angle with no reduction in lamp life.
Easy installation HaloGlobe™ and Halo BTT™ with their outer glass covers can be handled like any ordinary GLS lamp.

Applications: hotels, pubs, restaurants, offices, retail and residential.

Single ended halogen lamps

HaloGlobe™

Watts	Volts	Product Description	Cap	Length	Diameter	Lumen	CCT (K)	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
white											
60	230	HaloG95/60W/W 230V E27	E27	138.5	95	700	2850	2000	10	E	92534
100	230	HaloG95/100W/W 230V E27	E27	138.5	95	1350	2850	2000	10	E	92535
150	230	HaloG95/150W/W 230V E27	E27	138.5	95	2100	2850	2000	10	E	92536

Operating position: Universal.

Halo BTT™

Watts	Volts	Product Description	Cap	Length	Diameter	Lumen	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
clear										
60	230	HaloBTT/60W/CL 230V E27	E27	120	47	820	2000	10	D	90779
100	230	HaloBTT/100W/CL 230V E27	E27	120	47	1550	2000	10	D	90780
150	230	HaloBTT/150W/CL 230V E27	E27	120	47	2600	2000	10	D	90781
60	240	HaloBTT/60W/CL 230V E27	E27	120	47	820	2000	10	D	90782
100	240	HaloBTT/100W/CL 230V E27	E27	120	47	1550	2000	10	D	90783
60	240	HaloBTT/60W/CL 230V B22	B22	120	47	820	2000	10	D	90784
100	240	HaloBTT/100W/CL 230V B22	B22	120	47	1550	2000	10	D	90785

white										
60	230	HaloBTT/60W/W 230V E27	E27	120	47	700	2000	10	E	90299
100	230	HaloBTT/100W/W 230V E27	E27	120	47	1350	2000	10	E	90308
150	230	HaloBTT/150W/W 230V E27	E27	120	47	2100	2000	10	E	90310

Operating position: Universal.

HaloTubular

Watts	Volts	Product Description	Cap	Length	Lumen	CCT(K)	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
clear										
100	230	J89 TUBHAL	E14	74	1350	2800	1500	50	E	93700
150	230	J90 TUBHAL	E14	74	2150	2800	1500	50	E	93701
250	230	J92 TUBHAL	E14	74	3850	2800	1500	50	E	93702

HaloT38

Watts	Volts	Product Description	Cap	Length	Lumen	Life (h)	Pack Qty	Energy Efficiency Class	Product Code
clear									
500	230	Halo T38/500W/E40/230	E40	215	9500	2000	10	D	32106
1000	230	Halo T38/1000W/E40/230	E40	280	21000	2000	10	-	32108
500	240	Halo T38/500W/E40/240	E40	215	9500	2000	10	D	32107
1000	240	Halo T38/1000W/E40/240	E40	280	21000	2000	10	-	32109

Operating position: Horizontal ±4°.

Halogen lamps

General information

Halogen lamps provide a compact, high output light source popular for accent, display and general lighting applications in a wide variety of commercial, industrial and residential environments.

Choosing the right lamp

To help you achieve the most effective spread and level of illumination for your particular application, use the performance cones shown in this catalogue.

Assessing performance cones

Performance cones show the area, strength and distribution of light produced by each lamp. This varies according to the level of illuminance produced by the lamp (lux), the height of the lamp above the object being illuminated, and the beam angle of the lamp selected.

Selecting power and beam

Comparing performance cones lets you select the correct lamp for your needs. For example, GE's most commonly used mirror lamp, the 50W EXZ Precise™ MR16 ConstantColor™ with a beam angle of 25°, would produce 700 lux at 2 metres high with a beam diameter of 0.9 metres.

If, however, you wanted a smaller beam diameter of say 0.4 metres, the 20W spot beam ESX with its narrower 12° beam angle would be more effective, producing 838 lux. This would provide 15% extra luminance with a 60% reduction in energy consumption.

Selecting beam angles

GE halogen lamps are offered in a range of beam angles from 8° to 60°. Choose small beam angles to highlight single features with a tight focus, wide beam angles to provide a wash of ambient lighting achieve a variety of effects with intermediate beams.

Figure 1
Choosing the right power and beam

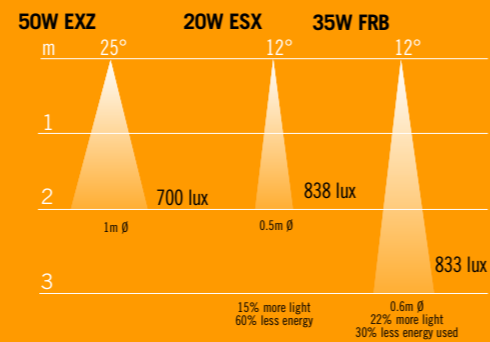
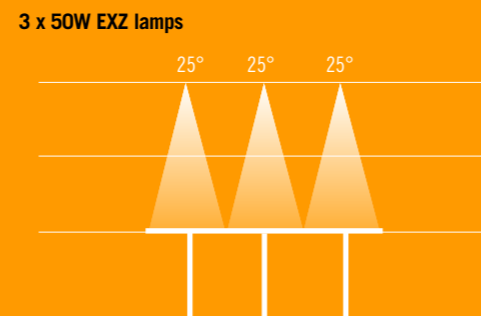
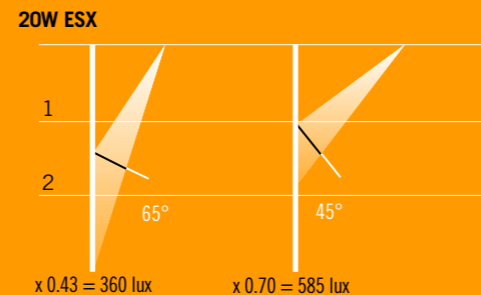
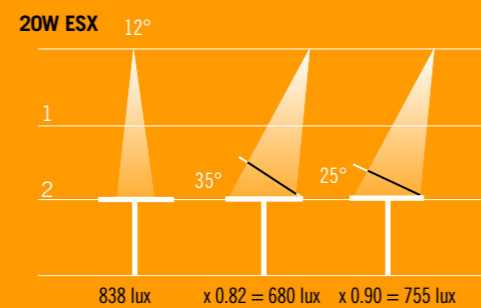


Figure 2
Choosing beam angles



Uniform performance
The performance cones can also provide a quick guide for achieving uniformity of illuminance on a horizontal plane

Select UV control

Tungsten Halogen lamps emit ultra violet rays similar to sunlight. Although the level of ultra violet emitted by halogen lamps is far lower - for example 8 hours in an office lit by halogen is equivalent to 10 minutes' sun eliminating these emissions is a sensible precaution. Choosing UV control halogen lamps effectively eliminates UV-C and greatly reduces UV-B radiation.

How to achieve maximum lamp performance

Most instances of early failure of halogen lamps are caused by incorrect installation. The risk of early failure will be reduced if you observe the following points:

- **Damage** such as bent pins and cracks in the ceramic base caused by rough handling during installation.
- **Poor electrical contact** between pins and lampholder which can lead to arcing. This is usually a result of insufficient insertion of the pins into the lamp holder.
- **Finger grease** on the quartz bulb which creates local hot spots and can lead to disintegration of the glass. Note this problem is avoided with sealed mirror lamps as the bulb is protected from handling.

• **Over voltage** - running a lamp at higher than rated voltage for prolonged periods can substantially reduce life. For example, a 5% increase in rated lamp voltage can lead to a 50% reduction in lamp life. If problems occur the voltage should be checked at the lamp base and the rating of the transformer should be checked against the lamp load applied.

• **Overheating** is usually caused by insufficient ventilation or cooling of the lamp and can be the result of poorly designed lamp fittings or installation.

• **Open lamps** should only be used within a luminaire with a protective shield.

Atmospheric factors

In harsh atmospheric conditions we would recommend ConstantColor™ which has a much more resilient coating plus the added advantage of 6000 hours.

Humidity does not normally present a problem with dichroic lamps, however early lamp failure can occur in areas of high humidity such as in kitchens, bathrooms and swimming pools. In these applications, fittings should be chosen with a moisture resistance or IP rating, appropriate to the environmental conditions in which they will be used.



Narrow-focus halogen light is used to create striking display highlights at a fashion outlet on Avenue De Montaigne, Paris, France.