

2008 Stage/Studio Lamp Catalog

For your best lighting performance.

Cinema Fluorescent

CSR/CSD Metal Halide

ConstantColor[®] CMH[®]

Quartzline[®] Halogen



SHOWBIZ[®]

for stage, studio, film and event lighting



imagination at work

IMPORTANT

Additional information is constantly being uncovered through research and testing, which may modify the data. This is particularly true of newer lamps. For the latest lamp design data and information, contact your General Electric Lamp Representative.

The data in this catalog, as well as any additional information our representative may be able to furnish, are for general information only and do not represent or warrant the suitability of a lamp for particular applications or use in particular equipment, nor are our representatives authorized to make such representations or give such warranties. Applications and conditions of use are varied, and beyond our control. We cannot possibly have the same knowledge the purchaser has with respect to the design of his equipment and the conditions of its use. It is up to the purchaser to determine the suitability of a lamp for

his intended application and to assume the responsibility for that determination.

General Electric desires to supply the best possible products at all times. For this reason, General Electric reserves the right to make changes in its products when it believes such changes will improve its products.

CAUTION NOTICES

Certain precautions should be observed in the handling and use of GE Stage/Studio Lamps to provide optimum performance and safety. Please comply with the warning and caution notices, footnotes and burning position limitations noted by lamp.

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INTRODUCTION

This catalog lists and gives essential technical data for all presently available General Electric lamps that are frequently used in lighting for: theatrical performances; television, motion picture and video productions; and professional photography.

Lamp listings are grouped into tables, each containing a closely related “family” of lamps with similar configuration. In many tables, the lamps are interchangeable (subject to limitations noted). This provides a self-contained guide for selecting alternative lamps. The following paragraphs explain the use of the tables.

Lamp Identification and Ordering Codes

Many GE lamps used in stage/studio applications are “coded.”

ANSI Codes are 3-letter codes assigned by the American National Standards Institute. They provide a system

for assuring mechanical and electrical interchangeability among similarly coded lamps of various manufacturers. The letters have no rational meaning other than to identify the lamp dimensional, electrical and photometric characteristics that are on file with ANSI. GE uses the assigned ANSI 3-letter Codes as Order Codes for Photo Lamps. Some GE lamps have a multiple code (examples: BFL/BFK, DYS/DYV/BHC). The first code is the official ANSI code, but the lamp also meets or exceeds the described characteristics for the other code(s), and may be used to replace lamps of either code.

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

- A** Designed for projectors, some used in raylight reflectors, martin moving mirror effects

CP Designed for use with tungsten balanced film stock at 3200K, single-ended lamp for use in Fresnel/ellipsoidal luminaires

P1 Use with 3200K film stock, open face luminaires and video sun guns

P2 Use with 3400K film stock

T Designed for theaters. Color temperature generally around 3000K.

Miniature Lamp Codes consist of numbers, also assigned by ANSI, to identify low voltage lamps from all manufacturers for interchangeability. GE uses these numerical codes as GE Description. In some instances, the GE Miniature Lamp Code includes the prefix H or Q, indicating a lamp with a halogen or quartz filament tube.

Discharge and Fluorescent Lamps

GE High Intensity Discharge lamps have brand name codes. The following describes the optimized characteristics:

CSR Metal Halide are daylight (6000K) color with CR greater than 90. Many with hot restrike (HR) and

dimnable with stable color temperature. Use with electronic or AC magnetic ballast/ignitor control gear.

ConstantColor® CMH® have CR greater than 80 with color uniformity between lamps and over lamp life.

CSS compact source specials are for disco and fiber optic application.

CSD are compact source lamps with very high color temperature and long life.

CID compact iodide daylight have color temperatures of daylight (5500K) while **CSI** compact source iodide lamps have a warmer color (4000K) that can be blended with tungsten lamps.

MVR is Multi-Vapor® Metal Halide and along with **SPL** lamps are suitable for sportslighting.

Cinema Fluorescent lamps come in warm(3200K) and daylight (5500K) colors with and without **CovRguard® (CVG)** shatter protection. There are compact **Biax® (BX)** lamps available.

INTRODUCTION (continued)

Voltage

Quartzline® halogen and incandescent lamps can be operated on AC or DC circuits. Fluorescent and metal halide lamps are for AC only, with suitable auxiliary ballasts.

Ordering Lamps

Order lamps using the codes in the GE Product Ordering Code column. Add the GE Description, plus lamp voltage (essential for lamps available in more than one voltage) to help assure getting the exact lamp required. However, if a lamp is listed with blue text in the catalog it is not stocked in North America, so procurement must be through an international distributor or your GE sales representative.

Lamp Indexes

There are indexes starting on page 13 with the 3-letter ANSI or LIF code where available. All incandescent and

halogen lamps are indexed by wattage on page 15-19. PAR reflector (by size), fluorescent and metal halide lamps are indexed by table on page 12, along with halogen lamps by base.

Lamp Tables

Each of the 46 lamp tables contains a “family” of lamps with similar configuration. Tables 1-29 each contain Quartzline® lamps having the same base and (in most cases) the same light source location. Therefore, all the lamps within each table are generally interchangeable. Tables 30-46 are various discharge lamp systems which require ballasts that may preclude interchange.

When selecting an alternative lamp from within a particular table, note any limitations to be considered as stated in the table. Filament forms may vary among lamps in some tables. Use of a different filament form may effect the light

output. Reflector lamps have differences in voltage and lamp bases as well as the usual concern for excess heat when a higher wattage lamp is substituted.

Footnotes

Throughout the lamp tables, the footnote column contains important information and safety notes. The footnotes and safety notices appear on pages 8-11.

Lamps Base Designations

Each lamp table includes the name of the base used on the lamps therein, including its letter/number ANSI/IEC designation, where applicable. Lamp bases are pictured on page 20-22.

Recommended Operating Position

Limitations on lamp operating position are shown either in the table heading or in a column within the table, in which case the following abbreviations are used:

- H4** operate only horizontally within 4 degrees
- H15** operate horizontally ± 15 degrees
- H45** operate horizontally ± 45 degrees
- HBU** horizontal -15 degrees to base up
- ANYCH** base any position, but with filament coil axis horizontal
- BD** base down
- BU30** within 30° of vertical base-up
- BD45** within 45° of vertical base-down
- BDTH** base down to horizontal
- BDTHCH** base down to horizontal with filament coil axis horizontal

Fluorescent lamps are all **"ANY"** position

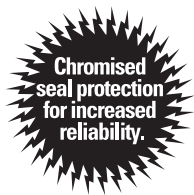
Low-Noise Construction

Many Quartzline® Stage/Studio lamps, have special "low-noise" construction - to minimize generation of audible noise when operated on AC circuits. Such lamps are identified in the tables with a footnote (1). Lamps, sockets, wiring, etc. tend to generate audible noise when used on dimmers that distort the normal AC sine wave. "Low-noise"

INTRODUCTION (continued)

lamps, therefore, often prove especially useful on wave-distorting dimmers such as SCR, Thyatron, or “mag-amp” types. No noise is generated on “flat-wave” DC circuits.

Chromised Seal Protection



Quartzline® Stage/Studio and selected CSR lamps have a special chromised seal protection, which allows lamp seal temperatures up to 500° C (vs. traditional 350° C), which increases life and reliability. Look for this seal on the package coming soon.

Other GE Publications

All the lamps in this consolidated Stage/Studio Lamp Catalog come from the GE catalogs listed below. They contain data for other lamps that may be of interest for stage/studio applications.

Specialty Catalog (PC 29119)
Lamp Products Catalog (PC 25265)

FOOTNOTES

- (1) Filament with low noise construction
- (3) Beam spread to 50% peak candlepower. Two numbers are horizontal by vertical.
- (4) Ceramic part of lamp base is slightly larger than other lamps in table 2, thus may not fit in some leaf-spring type lampholders
- (5) Beam spread to 10% peak candlepower. Two numbers are horizontal by vertical.

- (6) Candlepower is the intensity (candelas) generally at the center or maximum intensity of the beam
- (7) Pinned base to insure correct application
- (8) Light Balancing (LB) index: mired shift value limit is ± 5 . Color compensating (CC) filter value limit $\pm 5m$. CC filter density: (+) magenta, (-) green. The LB and CC limits are specified to eliminate the need to add external color adjusting filters in cinematographic lighting.
- (9) Cinema32 lamps are 3200K (tungsten), chromaticity $x=.415$ $y=.377$, CRI 95, Gold bases
- (10) Cinema55 lamps are 5500K (daylight), chromaticity $x=.325$ $y=.321$, CRI 96, Blue bases
- (11) Biax Cinema32 are 3200K, chromaticity $x=.415$ $y=.380$, CRI 86
- (12) Filament shield masks direct light
- (13) Biax Cinema56 are 5600K, chromaticity $x=.330$ $y=.335$, CRI 86
- (14) Enclosed fixture only, per UL Standard 1572. In accordance to Federal Regulations (21 CFR 1040.30) the following notice applies:
WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured, and the arc tube continues to operate. Do not use where people will remain more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamp that will automatically extinguish when the outer envelope is broken or punctured are commercially available.
- (15) Apparent lighted length slightly longer than similar clear lamp
- (16) Life dependent on service conditions. For use only in equipment specially designed to maintain bulb and base temperature within safe limits.
- (19) Requires non-ANSI ballast. Narrow 6 degree spot with 1,350,000 CBCP.
- (20) Top end of bulb is opaque-coated to absorb upward light
- (21) Blue glass bulb. Color temperature may vary amongst lamps.
- (22) Because of possible overheating, this lamp is not recommended for use without forced cooling in fixtures having deep-bowl, close-fitting reflectors with lamp axis crosswise to the reflector axis.
- (23) 850,000 CBCP with 8 degrees to 50% CBCP
- (24) 820,000 CBCP with 9 degrees to 50% CBCP
- (27) Has blackening collector grid on only one side of filament. In burning positions other than base down, lamp should be installed so that grid is above filament.
- (31) GE lamp is 240 volt; 250 volt is specified for Colortran.
- (51) Silica coated
- (52) Rough service. 6 filament supports.
- (55) Burn BDTH, but avoid horizontal burning with support spine beneath filament to prevent premature arcing

SAFETY NOTES

62 Exposed Unshielded Stage and Studio Lamps

⚠ WARNING

Risk of electrical shock

- Turn power off before inspection, installation or removal

Risk of fire

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

Pressurized lamp—unexpected rupture may cause injury, fire, or property damage

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

⚠ CAUTION

Risk of burn

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

62 Exposed Unshielded Stage and Studio Lamps (continued)

Lamp may shatter and cause injury if broken

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

Lamp emits UV radiation which may cause eye/skin irritation. RG-2

- Limit unshielded exposure to less than 15 minutes per day

63 PAR Lamps and Glass Covered Stage and Studio Lamp

⚠ WARNING

Risk of electrical shock

- Turn power off before inspection, installation or removal

Risk of fire

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

A damaged lamp emits UV radiation which may cause eye/skin injury

- Turn power off if glass is broken. Remove and dispose of lamp.

Pressurized lamp—unexpected rupture may cause injury, fire, or property damage

- Do not exceed 110% of rated voltage
- Avoid direct water/liquid contact

63 PAR Lamps and Glass Covered Stage and Studio Lamp (continued)

- Use in enclosed fixtures rated for this product
- Do not use lamp if outer glass is scratched or broken

⚠ CAUTION

Risk of burn

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

Lamp may shatter and cause injury if broken

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

64 High Wattage Incandescent PAR Lamps

⚠ WARNING

Risk of electrical shock

- Turn power off before inspection, installation, or removal

Risk of fire

- Keep combustible materials away from lamp

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

- Avoid direct water/liquid contact
- Use in enclosed fixtures rated for this product

171 Linear Fluorescent

⚠ WARNING

Risk of electrical shock

- Turn power off before inspection, installation, or removal

⚠ CAUTION

Lamp may shatter and cause injury if broken

- Wear safety glasses and gloves when handling lamp
- Do not use excessive force when installing lamp

307 Low Wattage Halogen PAR Lamps

⚠ WARNING

Pressurized lamp—unexpected rupture may cause injury, fire, or property damage

- Do not use lamp if outer glass is scratched or broken
- Dispose of lamp in closed container

INDEX BY TABLE, TECHNOLOGY AND LAMP BASE

Technology and Base Type	Table No.	Page No.	Technology and Base Type	Table No.	Page No.	Technology and Base Type	Table No.	Page No.
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R7s with 3 1/8" MOL	1	23	GY38 Mogul Bi-Post (38mm apart)	16	37	Single-Ended Cold Start	30	59
R7s with 3 3/4" MOL	2	23	GX38Q High Volt 2 Filament	17	38	Single-Ended Short Arc	31	59
R7s with 5 5/8" MOL	3	24	E11 Miniature Candelabra Screw	18	39	Single-Ended Hot Restrike	32	59
Halogen, Double-Ended, C-8 coil			E26 Medium Screw	19	40	Double-Ended Hot Restrike	33	60
R7s with 4 11/16" MOL	4	25	E39 Mogul Screw	20	41	Single-Ended Hot Restrike UV Control	34	61
R7s with 6 9/16" MOL	5	26	BA15d Double Contact Bayonet	21	41	Discharge-ConstantColor CMH		
R7s with 7 7/16" MOL	6	27	P28s Medium Prefocus	22	43	PAR56 Reflector	38	62
Halogen, Single-Ended			P28s with CC-8 Coil	23	44	PAR64 Reflector	39	63
G5.3 Miniature 2-pin (5.3mm apart)	7	27	P40s Mogul Prefocus	24	45	Discharge-CSI, CID, MVR/SPL		
G9.5 Medium 2-pin (9.5mm apart)	8	27	Halogen and Incandescent Reflector Lamp Systems			Double-Ended	40	64
G9.5/Heat Sink (Metal 2-pin)	9	29	MR16 (2" reflector)	25	46	Single-Ended	41	64
GX9.5 Prefocus Med 2-pin	10	31	PAR36 (4.5" reflector)	26	47	PAR64 Reflector	42	65
GY9.5 Oriented 2-pin (2 OD pins)	11	32	PAR46 (5.75" reflector)	27	49	Fluorescent Cinema Lighting		
GZ9.5 Oriented 2-pin (2 OD pins)	12	33	PAR56 (7" reflector)	28	50	Standard Cinema T8	43	70
GY16 2-pin prefocus (16mm apart)	13	34	PAR64 (8" reflector)	29	51	Standard Cinema T12	44	70
G22 Medium Bi-post (22mm apart)	14	34				CovRguard™ Cinema	45	71
G38 Mogul Bi-post	15	35				Biax®	46	71

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ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.	ANSI Code	Table No.
BAH	19	CBX	21	DXW	2	EGM	23	EME	4	EXG	29	FEL	8	FKH	14	FVB	10
BBA	19	CDJ	21	DXX	1	EGN	14	EMF	4	EXV	25	FEP	8	FKJ	14	FVL	7
BCA	19	CEB	21	DYH	7	EGR	14	ENH	25	EXX	25	FER	3	FKK	15	FVM	7
BCM	16	CXZ	15	DYR	12	EGT	14	ESL	18	EYH	7	FEV	21	FKN	22	FWR	10
BLC	21	CYV	15	DYS	12	EHC	8	ESM	18	EZK	25	FEX	3	FKR	8	FWS	10
BLX	21	CYX	15	DZA	7	EHD	8	ESN	18	FAD	1	FEY	3	FKW	11	FWT	10
BRH	2	DKX	20	EBV	19	EHF	8	ESP	21	FAY	26	FFM	1	FLK	8	GCS	11
BTL	22	DKZ	20	EBW	19	EHG	8	ESR	21	FBE	26	FFN	29	FMR	11	GCT	11
BTM	22	DPY	15	ECA	19	EHM	4	ESS	21	FBG	7	FFP	29	FRE	11	GCV	11
BTN	22	DRB	22	ECT	19	EHP	1	ETB	21	FBO	26	FFR	29	FRG	11	GCW	11
BTP	22	DRS	22	EFM	25	EHR	1	ETC	21	FBX	1	FFS	29	FRH	11	GFA	29
BTR	22	DSE	20	EFN	25	EHT	18	ETD	21	FBY	2	FFT	5	FRJ	11	GFB	29
BVT	24	DSF	20	EFP	25	EHZ	4	ETF	21	FCB	2	FGM	29	FRK	11	GFC	29
BVV	24	DTA	24	EFR	25	EJD	4	ETG	18	FCL	4	FGN	29	FRL	11	GKV	8
BVW	24	DTY	15	EGC	23	EJG	4	ETH	18	FCM	4	FGT	5	FRM	11	GLA	8
BWA	15	DVS	4	EGE	23	EKB	11	EVR	18	FCV	26	FHM	4	FSK	11	GLC	8
BWF	20	DVY	7	EGF	23	EKD	10	EWE	23	FCX	26	FKB	22	FSL	11	GLD	8
BWM	8	DWE	26	EGG	23	EKM	6	EXC	29	FDB	5	FKD	22	FTL	13	GLE	8
BWN	8	DWT	3	EGJ	23	ELC	25	EXD	29	FDG	4	FKE	23	FTM	13		
CAX	21	DWZ	1	EGK	23	EMD	4	EXE	29	FDN	4	FKF	22	FVA	10		

INDEX: WATTAGE

GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table
25 Watts		35 Watts (continued)		55 Watts		85 Watts (continued)		110 Watts	
25PAR36	23	F20T12/CINEMA32/HO/CVG	44	F55BX/CINEMA32	45	F72T12/CINEMA55/HO/CVG	44	F96T12/CINEMA32/HO	43
25PAR36/VWFL	26	F20T12/CINEMA55/HO	43	F55BX/CINEMA56	45	100 Watts		F96T12/CINEMA32/HO/CVG	44
25PAR36NSP	26	F20T12/CINEMA55/HO/CVG	44	F55BX/CINPLUS/32	45	4509	26	F96T12/CINEMA55/HO	43
25PAR36WFL	26	37.5 Watts		F55BX/CINPLUS/56	45	4543	28	F96T12/CINEMA55/HO/CVG	44
25PAR46	27	H7616	26	F48T8/CINEMA32	43	4545	28	120 Watts	
30 Watts		50 Watts		F48T8/CINEMA55	43	4591	26	120PAR	29
4405	26	4505	26	F48T8/CINEMA32/CVG	43	4594	26	120PAR56/MFL	28
4435	27	50PAR26/H/SP8	26	F48T8/CINEMA55/CVG	43	4595	26	120PAR56/VNSP	28
4515	26	50PAR36/H/FL30	26	60 Watts		4509X	26	120PAR56/WFL	28
4535	27	50PAR36/H/SP5	26	F40T12/CINEMA32/HO	43	CDJ	21	125 Watts	
BLC	21	50PAR36NSP	26	F40T12/CINEMA32/HO/CVG	44	CEB	21	CSR125/SE/HR	32
DZA	7	50PAR36VNSP	26	F40T12/CINEMA55/HO	43	EFP	25	140 Watts	
H4405	26	50PAR36VWFL	26	F40T12/CINEMA55/HO/CVG	44	EXV	25	CSS150/850/GY9.5	41
H4515	26	50PAR36WFL	26	75 Watts		FVM	7	150 Watts	
35 Watts		50PAR36WFL/4	26	CBX/CBS	21	Q100CL/DC	21	150PAR46/1	27
4436	27	BLX	21	EFN	25	Q100CL/DC/2V	21	150PAR46/3MFL	27
35PAR36/H/FL30	26	CAX	21	85 Watts		Q100CL/MC	18	CMH150/PAR56/830/GX16d/SP	38
35PAR36/H/SP5	26	EFM	25	F72T12/CINEMA32/HO	43	Q100CL/MC/2V	18	CMH150/PAR56/830/GX16d/MFL	38
35PAR36/H/SP8	26	H7604	26	F72T12/CINEMA32/HO/CVG	44	Q100DC	21	CMH150/PAR56/830/GX16d/WFL	38
F20T12/CINEMA32/HO	43	H7635	27	F72T12/CINEMA55/HO	43	Q100MC	18		

INDEX: WATTAGE

GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table
150 Watts (continued)		200 Watts		250 Watts (continued)		300 Watts (continued)		420 Watts	
CMH150/PAR56/942/GH16d/SP	38	200PAR	28	CSD250/2/SE	30	FSL	11	EKB-Q420/4CL/2PP	11
CMH150/PAR56/942/GH16d/MFL	38	200PAR46/3MFL	27	ECA	19	Q300T3	4	FFM	1
CMH150/PAR56/942/GH16d/WFL	38	200PAR46/3NSP	27	ELC	25	Q300T3/CL	4	450 Watts	
CMH150/PAR64/830/GX16d/MFL	39	200PAR56/MFL	28	ELC/500	25	Q300T4/CL	1	4541	28
CMH150/PAR64/830/GX16d/SP	39	99-Q211CID/HR	41	ENH	25	350 Watts		500 Watts	
CMH150/PAR64/830/GX16d/WFL	39	CSR200/DE	33	EXX	25	FDH/HIR-Q350T2/4CL	4	500PAR64/MFL	29
CMH150/PAR64/842/GX16d/MFL	39	CSR200/SE/HR	32	EYH/FKT	7	Q350T3/CL/HIR	4	500PAR64/NSP	29
CMH150/PAR64/842/GX16d/SP	39	FEV-Q200/4CL/DC	21	Q250CL/DC	21	375 Watts		500PAR64/WFL	29
CMH150/PAR64/842/GX16d/WFL	39	FVL	7	Q250CL/MC	18	DWZ(30V)	1	BTL-Q500T6/CL/P	22
EFR	25	235 Watts		Q250DC	21	HPL375/C	9	BTM-Q500T6/4CL/2P	22
EZK	25	Q235T4/3	12	Q250MC	18	HPL375/LL/C	9	EBV (#2)	19
Q150CL/DC	21	240 Watts		300 Watts		400 Watts		EBW (#B2)	19
Q150CL/DC/2V	21	240PAR56/MFL	28	300PAR/WFL	28	400G/FL	19	ECT	19
Q150CL/MC	18	240PAR56/VNSP	28	300PAR56/MFL	28	99-Q201CSI	41	EGC-Q500/5CL/P	23
Q150DC	21	240PAR56/WFL	28	300PAR56/NSP	28	CSR400/S/DE	33	EGE-Q500CL/P	23
Q150MC	18	250 Watts		300PAR56/WFL	28	CSR400/S/DE/90	33	EGN-Q500T8	14
		4552	29	BAH	19	CSR400/SE/HR	32	EHC-Q500/5CL	8
		4553	27	FKW-Q300T8	11	CSR400/SE/HR/75	32	EHD-Q500CL/TP	8
		BBA (#1)	19	FSK	11	Q400CL/MC	18		
		BCA (#B1)	19			Q400MC	18		

GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table
500 Watts (continued)		500 Watts (continued)		600 Watts		650 Watts (continued)		675 Watts	
EVR-Q500CL/MC	18	T28	22	4559	29	FAY-Q650PAR36/3D	26	FFT/HIR-Q675T3/4	5
FBG/FBD	7	T28	22	DYH	7	FBE-Q650PAR36/5D	26	700 Watts	
FDF-Q500T3/4CL	4	550 Watts		DYS/DYV/BHC	12	FBO-Q650PAR36/5	26	CSR700/2/SE	30
FDN-Q500T3/4	4	HPL550/C	9	FCB	2	FBX-Q650T4/4	1	CSR700/SA	31
FKF	22	575 Watts		FMR-Q600T5	11	FCM/HIR	4	CSR700/S/DE	33
FRG-Q500T8	11	99-0415CID	41	GKV	8	FCW-Q650PAR36/6	26	CSR700/S/DE/75	33
FRH	11	CSR575/2/SE	30	GKV-Q575T6/4CL	8	FCX-Q650PAR36/7	26	CSR700/SA/72	31
FRJ	11	CSR575/2/T/SE	30	GKV/LL	8	FKB	22	750 Watts	
GCV	11	CSR575/DE	33	Q4559	29	FKH	14	BTN-Q750T7/CL/2P	22
GCW	11	CSR575/S/DE/70	33	Q4559X	29	FKR	8	BTP-Q750T7/4CL/2P	22
Q500CL/DC	21	CSR575/SS/DE/75	33	625 Watts		FRE	11	BWM-Q750T7/4CL/TP	8
Q500DC	21	CSR575/SE/HR	32	Q625T3/4CLP2/10	6	FRK-Q650T8	11	EGF-Q750/4CL/P	23
Q500PAR50WFL	28	CSR575/SE/HR/UV-C	34	650 Watts		FRL	11	EGG-Q750CL/P	23
Q500PAR56MFL	28	CSS575/855/GY9.5	41	CP23	10	FRM	11	EGR-Q750T7/4CL	14
Q500PAR56NSP	28	FLK-Q575T6	8	CP51	22	GCS	11	EHF-Q750/4CL	8
Q500PAR64/MFL	29	FLK/LL-Q575T6	8	DVY	7	GCT	11	EHG-Q750CL/TP	8
Q500PAR64/NSP	29	GLA-Q575T6/4CL	8	DWE-Q650PAR36/1	26	T12	10	EJG-Q750T3/4CL	4
Q500PAR64/VNSP	29	GLC-Q575T6/5CL	8	DYR	12	T13	22	EMD-Q750T3/4	4
Q500T3/CL	4	HPL575	9	EKD-Q650/3CL/2PP	10			GLD-Q750T6/4CL	8
Q500T3/CL/6	4	HPL575-X LL	9	FAD-Q650T4/4CL	1			GLE-Q750T6/4CL	8
T17	22	HPL575/C	9						
		HPL575/LL/C	9						

INDEX: WATTAGE

GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table
750 Watts (continued)		1000 Watts (continued)		1000 Watts (continued)		1000 Watts (continued)		1200 Watts	
HPL750	9	BVT-Q1000T7/CL/MP	24	EWE	23	FKE	23	99-1435CID/HR	42
HPL750/XLL/C	9	BVV-Q1000T7/4CL/MP	24	EXC-Q1MPAR64CP60	29	FKJ	14	CP90	10
HPL750/C	9	BWN-Q1000T7/4CL/TP	8	EXD-Q1MPAR64CP61	29	FKJ	14	CP93	14
HPL750/LL/C	9	CP24	10	EXE-Q1MPAR64CP62	29	FKN	22	CSR1200/2/SE	30
800 Watts		CP95	29	EXG/PAR64/WFL	29	FVA	10	CSR1200/DE	33
CSR800/SE/HR	32	CYV-Q1000T7/4CL/BP	15	FBY-Q1000T5/4	2	FVB	10	CSR1200/SE/HR	32
CSR800/SE/HR/UV-C	34	DKZ/DSE-Q1000PS52/4	20	FCM-Q1000T3/4CL	4	FWP	10	CSR1200/SE/HR/UV-C	34
DXX	1	DRB	22	FEL-Q1000/4CL	8	FWR	10	CSR1200/S/DE	33
EME-Q800T3/P2/11	4	DRC	22	FEP-Q1MT6/4CL	8	Q1000PAR64MFL	29	CSR1200/S/DE/72	33
EMF-Q800T3/P2/11	4	DRS	22	FER-Q1000T6/4CL	3	Q1000PAR64NSP	29	CSR1200/SA	31
HX800	8	DSE-Q1000	20	FFN-Q1000PAR64/1	29	Q1000PAR64WFL	29	FWS	10
1000 Watts		DWT-Q1000T6/CL	3	FFP-Q1000PAR64/2	29	Q1000T8/CL	10	FWT	10
99-0221CSI	41	DXW-Q1000T5/4CL	2	FFR-Q1000PAR64/5	29	SPL1000/PAR64/840	42	GFA-Q1200PAR64/5	29
99-0222CID	41	EGJ-Q1000/4/CL/P	23	FFS-Q1000PAR64/6	29	SPL1000/PAR64/HR	42	GFB-Q1200PAR64/2	29
99-1225CID	42	EGK-Q1000/4/P	23	FFT-Q1000T3/1CL	5	T11	10	GFC-Q1200PAR64/1	29
99-1425CID/HR	42	EGM-Q1000CL/P	23	FGM-Q1000PAR64/3D	29	T14	22	OC1200	14
BRH	2	EGT-Q1000T7/4CL	14	FGN-Q1000PAR64/7D	29	T16	24	T29	10
BTR-Q1000T7/4CL/2P	22	EJD-Q1000T3/3CL (185V)	4	FHM-Q1000/T3/4	4				
		EKM-Q1MT3/4CLP2/7	6	FKD	22				

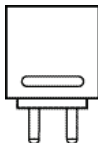
GE Description	Table	GE Description	Table	GE Description	Table	GE Description	Table
1250 Watts		2000 Watts		2000 Watts (continued)		10000 Watts	
CP105-1250/650	17	BVW-Q2000T10/4CL/MP	24	CSR2500/DE	33	CP83	15
CP30-1250/1250	17	BWA-Q2000/4CL/BP	15	CSR2500/SE/HR	32	DTY-Q10M/T24/4CL	15
CP58-1250/2500	17	BWF-Q2000/4CL	20	CSR2500/SE/HR/UV-C	34	12000 Watts	
Q1250T3/P2/12	6	CP53	24	3000 Watts		CSR12000/DE	33
1500 Watts		CP59	20	HX48	15	CSR12000/SE/HR	32
CXZ-Q1500T10/4CL	15	CP79	13	4000 Watts		Q12MT26/4CL	16
DKX/DSF-Q1500PS52/4	20	CP92	14	CSR4000/DE	33	Q12MT26/4CL	16
DSF-Q1500	20	CSR2000/SA	31	CSR4000/SE/HR	32	Q12MT26/4CL	16
DTA-Q1500T8/4CL	24	CYX-Q2000T10/4CL	15	CSR4000/SE/HR/UV-C	34	18000 Watts	
FDB-Q1500T4/4CL	5	FEX-Q2MT8/4CL	3	5000 Watts		CSR18000/DE	33
FGT-Q1500T4/4	5	FEY-Q2000T8/4CL	3	CP29	15	CSR18000/S/DE	33
MVR1500/HBU	41	FKK	15	DPY-Q5000T20/4CL	15	CSR18000/SE/HR	32
MVR1500/U/SPORTS	41	FTL	13	HX5000	15	20000 Watts	
SPL1500/L/H/652	40	FTM	13	HX5000/240	15	BCM-Q20MT32/4CL	16
1650 Watts		MQI12000/T9/40	41	6000 Watts		BCM-Q20MT32/4CL	16
MVR1650/HOR	41	2500 Watts		CSR6000/DE	33	BCM-Q20MT32/4CL	16
		99-0431CID/HR	41	CSR6000/SE/HR	32	24000 Watts	
		CP32-2500/2500	17	CSR6000/SE/HR/UV-C	34	Q24MT32/4CL	16
		CP91	14			Q24MT32/4CL	16
		CP94	15				

LAMP BASE DRAWINGS

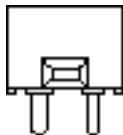
(dimensions in mm)



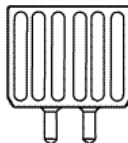
Miniature 2-Pin
G5.3 (round 1.6mm OD)
GX5.3 (round 1.5mm OD)
GY5.3 (flat 2 x .7mm)



Medium 2-Pin
G9.5 (round 3.2mmOD)
GX9.5 (Prefocused)



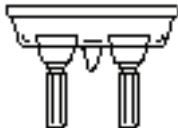
Oriented Med 2-Pin
GY9.5 (2.4/3.2mm OD)
GZ9.5



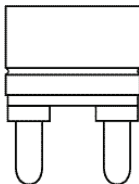
Medium 2-Pin
G9.5/Heat sink
(metal base)



GY16d



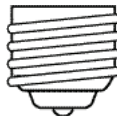
Medium BiPost
G22 (6.35mm OD)



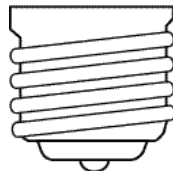
Mogul BiPost
G38 (11.1mm OD)



Miniature Candelabra
E11 (10.7mm screw)



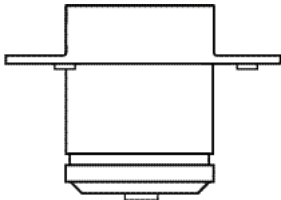
Medium Screw
E26 (26mm screw)



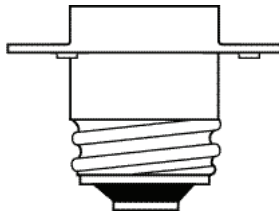
Mogul Screw
E39 (39.3mm screw)



Double Contact Bayonet
BA15d (15mm diameter)



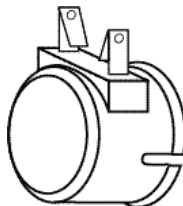
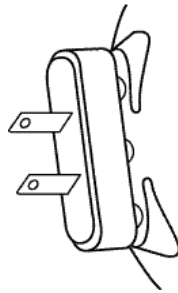
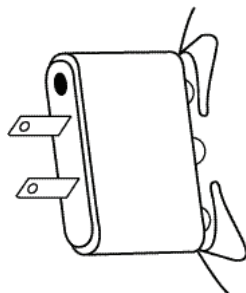
Medium Prefocus
P28s (27.5mm OD)



Mogul Prefocus
P40s (39.4mm OD)



Recessed Contact
R7s (7mm OD)

PAR LAMP BASE DRAWINGS**Screw Terminal****Ferrule****Medium Side Prong
(MSP)****Mogul End Prong
(MEP or GX16d)****Extended MEP
(EMEP or GX16d)**

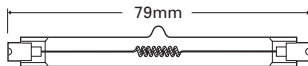


Fig. 1

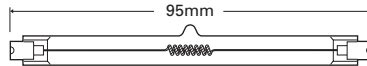


Fig. 2

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	MOL (mm)	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	Lighted Length (mm)	Bulb Finish	Burning Position	Fig. No.
Table 1: Halogen, Double-Ended, Compact Coil (CC-8), R7s Base, 79mm (3¹/₈") MOL																	
300	T-4	Q300T4/CL	62	EHP		43705	6	79	120	2900	2000	5650	CC-8	18		Any	1
375	T-4	DWZ(30V)	62	DWZ		29578	24	79	30	3000	1000	7500	CC-8	10		Any	1
420	T-4	FFM	62	FFM		30276	24	79	120	3200	75	11000	CC-8	13		Any	1
650	T-4	FAD-Q650T4/4CL	62	FAD	P2/6	30325	24	79	120	3200	100	16500	CC-8	17		Any	1
		FBX-Q650T4/4	15, 62	FBX	P2/6	30343	24	79	120	3200	100	16500	CC-8		Frosted	Any	1
800	T-4	DXX	62	DXX	P2/13	36952	24	79	230	3200	75	21400	CC-8	24		Any	1
		DXX	62	DXX	P2/13	36953	24	79	240	3200	75	21400	CC-8	24		Any	1
Table 2: Halogen, Double-Ended, Compact Coil (CC-8), R7s Base, 95mm (3³/₄") MOL																	
600	T-4	FCB	4, 62	FCB	A1/228	29598	24	95	120	3250	75	17000	CC-8	17		Any	2
1000	T-5	DXW-Q1000T5/4CL	27, 62	DXW		30157	24	95	120	3200	150	28000	CC-8	22		Any	2

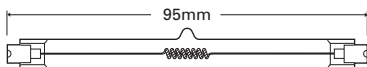


Fig. 2

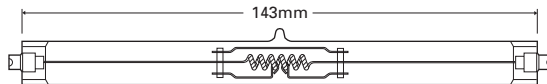


Fig. 3

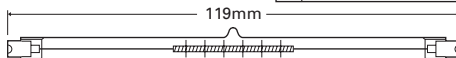


Fig. 4

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	MOL (mm)	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	Lighted Length (mm)	Bulb Finish	Burning Position	Fig. No.
Table 2: Halogen, Double-Ended, Compact Coil (CC-8), R7s Base, 95mm (3³/₄") MOL																	
1000	T-5	FBY-Q1000T5/4	15, 62	FBY		30374	24	95	120	3200	150	26000	CC-8		Frosted	Any	2
		BRH	62	BRH		29604	24	95	120	3350	75	30000	CC-8	19		Any	2
Table 3: Halogen, Double-Ended, Compact Coil (CC-8), R7s Base, 143mm (5⁵/₈") MOL																	
1000	T-6	DWT-Q1000T6/CL	62	DWT		23800	6	143	120	3000	2000	23400	CC-8	25		Any	3
		FER-Q1000T6/4CL	62	FER		33760	6	143	120	3200	500	27500	CC-8	19		Any	3
2000	T-10	FEX-Q2MT8/4CL	62	FEX	P2/27	35338	12	143	230	3200	300	50000	CC-8	37		H4	3
		FEX-Q2MT8/4CL	62	FEX	P2/27	35339	12	143	240	3200	300	50000	CC-8	37		H4	3
		FEY-Q2000T8/4CL	62	FEY	P2/27	39790	12	143	120	3200	400	57000	CC-8	25		H4	3

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	MOL (mm)	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	Lighted Length (mm)	Bulb Finish	Burning Position	Fig. No.
Table 4: Halogen, Double-Ended, C-8, R7s Base, 119mm (4^{11/16}") MOL																	
300	T-3	Q300T3/CL	62	EHM		43703	6	119	120	2950	2000	5950	C-8	59		H4	4
		Q300T3	15, 62	EHZ		43704	6	119	120	2950	2000	5900	C-8		Frosted	H4	4
350	T-2	FDF/HIR-Q350T2/4CL	62			20881	6	119	120	3200	400	13250	C-8	60		H4	4
	T-3	Q350T3/CL/HIR	62			13894	6	119	120	3000	2000	10000	C-8	56		H4	4
500	T-3	Q500T3/CL	62	DVS		23733	12	119	130	3000	2000	10550	C-8	62		H4	4
		Q500T3/CL	62	FCL		23731	12	119	120	3000	2000	11100	C-8	57		H4	4
		Q500T3/CL/6	62			23744	12	119	120	2950	1500	10950	C-8	60		H4	4
		FDF-Q500T3/4CL	62	FDF	P2/30	23735	12	119	120	3200	400	13250	C-8	60		H4	4
		FDN-Q500T3/4	15, 62	FDN	P2/31	23734	12	119	120	3200	400	12800	C-8		Frosted	H4	4
650	T-3	FCM/HIR-Q650T3/4	52, 62	FCM	—	13895	6	119	120	3275	400	25200	C-8	60		H4	4
750	T-3	EJG-Q750T3/4CL	62	EJG	—	23756	12	119	120	3200	400	20600	C-8	62		H4	4
		EMD-Q750T3/4	15, 62	EMD	—	23755	12	119	120	3200	400	19500	C-8		Frosted	H4	4
800	T-3	EME-Q800T3/P2/11	62	EME	P2/11	23760	12	119	240	3200	150	22000	C-8	64		H4	4
		EMF-Q800T3/P2/11	62	EMF	P2/11	23761	12	119	240	3200	150	21400	C-8		Frosted	H4	4

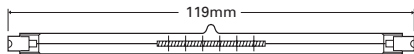


Fig. 4

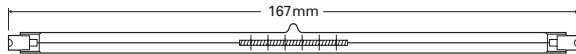


Fig. 5

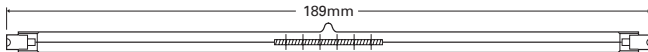


Fig. 6

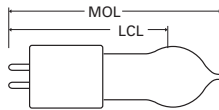


Fig. 7

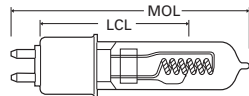


Fig. 8

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	MOL (mm)	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	Lighted Length (mm)	Bulb Finish	Burning Position	Fig. No.
Table 4: Halogen, Double-Ended, C-8, R7s Base, 119mm (4¹¹/₁₆") MOL (continued)																	
1000	T-3	FCM-Q1000T3/4CL	62	FCM	P2/28	23797	12	119	120	3200	400	28000	C-8	60		H4	4
		FHM-Q1000/T3/4	15, 31, 62	FHM	P2/29	23792	12	119	120	3200	400	27300	C-8		Frosted	H4	4
		EJD-Q1000T3/3CL (185V)	52, 62	EJD	—	23788	12	119	185	3350	100	33600	C-8	68		H4	4
Table 5: Halogen, Double-Ended, C-8, R7s Base, 167mm (6⁹/₁₆") MOL																	
675	T-3	FFT/HIR-Q675T3/4	52, 62	—	—	20884	6	167	120	3250	400	26400	C-8	67		H4	5
1000	T-3	FFT-Q1000T3/1CL	62	FFT	—	33280	12	167	120	3200	400	26400	C-8	67		H4	5
1500	T-4	FDB-Q1500T4/4CL	62	FDB	—	23841	12	167	120	3200	400	41250	C-8	62		H4	5
		FGT-Q1500T4/4	15, 62	FGT	—	41229	12	167	120	3200	400	40200	C-8		Frosted	H4	5

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	MOL (mm)	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	Lighted Length (mm)	Bulb Finish	Burning Position	Fig. No.
Table 6: Halogen, Double-Ended, C-8, R7s Base, 189mm (7⁷/₁₆" MOL																	
625	T-3	Q625T3/4CLP2/10	62		P2/10	19697	12	189	230	3200	300	16900	C-8	107		H4	6
		Q625T3/4CLP2/10	62		P2/10	19698	12	189	240	3200	300	16900	C-8	107		H4	6
1000	T-3	EKM-Q1MT3/4CLP2/7	62	EKM	P2/7	20249	12	189	230	3200	300	28000	C-8	115		H4	6
		EKM-Q1MT3/4CLP2/7	62	EKM	P2/7	20253	12	189	240	3200	300	28000	C-8	115		H4	6
1250	T-3	Q1250T3/P2/12	62		P2/12	19695	12	189	230	3200	300	35000	C-8	112		H4	6
		Q1250T3/P2/12	62		P2/12	19696	12	189	240	3200	300	35000	C-8	112		H4	6

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 7: Halogen, Single-Ended, G5.3 Miniature 2-Pin (5.3mm apart)																		
30	T-3.5	DZA	62	DZA	—	37346	24	G5.3	10.8	3100	400	530	C-6	27	51	BDTHCH		
105	T4	FVM	62	FVM		19678	24	G5.3	120	3200	250	2200	CC-8	32	60	Any		7
200	T4	FVL	62	FVL		19679	24	G5.3	120	3200	200	5200	CC-8	32	60	Any		7
250	G-6	EYH/FKT	62	EYH	—	13617	24	G5.3	120	3000	200	6000	CC-6	36	64	BDTHCH		7
500	G-6	FBG/FBD	62	FBG	—	33663	24	G5.3	120	3200	50	13200	CC-6	44	76	ANYCH		7
600	G-7	DYH	62	DYH	—	30364	24	G5.3	120	3200	75	17000	CC-6	36	64	ANYCH		7
650	G-6	DVY	62	DVY	—	30304	24	G5.3	120	3300	25	20000	CC-6	36	64	BDTHCH		7

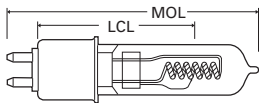


Fig. 8

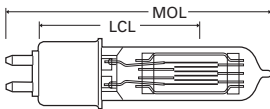


Fig. 9

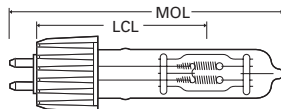
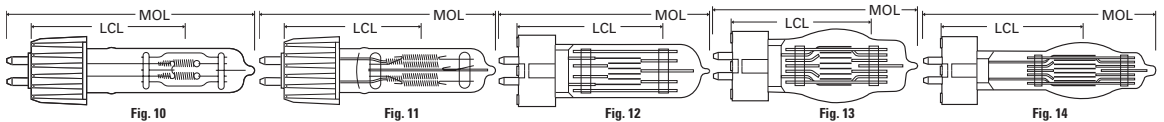


Fig. 10

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 8: Halogen, Single-Ended, G9.5 Medium 2-Pin (9.5mm apart)																		
500	T-6	EHD-Q500CL/TP	62	EHD		39768	24	G9.5	120	2900	2000	10000	CC-8	60	105	Any		8
		EHC-Q500/5CL	62	EHC		39789	24	G9.5	120	3150	500	12700	CC-8	60	105	Any		8
575	T-6	FLK-Q575T6	62	FLK		11450	24	G9.5	115	3200	300	16500	CC-8	60	105	Any		8
		FLK/LL-Q575T6	62	—	—	39730	24	G9.5	115	3100	1500	12800	CC-8	60	105	Any		8
		GLA-Q575T6/4CL	62	GLA	—	93428	24	G9.5	115	3050	1500	13000	C-13D	60	105	Any		9
		GLC-Q575T6/5CL	62	GLC	—	93429	24	G9.5	115	3200	300	14500	C-13D	60	105	Any		9
600	T-6	GKV-Q575T6/4CL	62	GKV		39739	24	G9.5	230	3200	250	14000	C-13D	60	105	Any		9
		GKV	62	GKV		39750	24	G9.5	240	3200	250	14000	C-13D	60	105	Any		9
		GKV/LL	62	GKV		39751	24	G9.5	230	3000	1500	11000	C-13D	60	105	Any		9
		GKV/LL	62	GKV		39752	24	G9.5	240	3000	1500	11000	C-13D	60	105	Any		9
650	T-6	FKR	62	FKR		39734	24	G9.5	230	3100	300	15000	C-13D	60	105	Any		9
		FKR	62	FKR		39735	24	G9.5	240	3100	300	15000	C-13D	60	105	Any		9
750	T-6	EHG-Q750CL/TP	62	EHG	—	39770	24	G9.5	120	3000	2000	15000	CC-8	60	105	Any		8
		EHF-Q750/4CL	62	EHF	—	39771	24	G9.5	120	3200	300	20000	CC-8	60	105	Any		8

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 8: Halogen, Single-Ended, G9.5 Medium 2-Pin (9.5mm apart) (continued)																		
750	T-6	GLD-Q750T6/4CL	62	GLD	—	92771	24	G9.5	115	3200	300	19000	C-13D	60	105	Any		9
		GLE-Q750T6/4CL	62	GLE	—	92773	24	G9.5	115	3050	1500	17400	C-13D	60	105	Any		9
	T-7	BWM-Q750T7/ 4CL/TP	1, 62	BWM	—	39680	6	G9.5	120	3200	200	21000	C-13D	60	114	BDTH		9
800	T-6	HX800	62		HX800	39753	24	G9.5	230	3200	250	20000	C-13D	60	105	Any		9
		HX800	62		HX800	39754	24	G9.5	240	3200	250	20000	C-13D	60	105	Any		9
1000	T-6	FEL-Q1000/4CL	62,22	FEL	CP77	39769	24	G9.5	120	3200	300	27500	CC-8	60	105	Any		8
		FEP-Q1MT6/4CL	62	FEP	CP77	39738	24	G9.5	230	3200	300	25000	CC-8	60	105	Any		8
		FEP-Q1MT6/4CL	62	FEP	CP77	39736	24	G9.5	240	3200	300	25000	CC-8	60	105	Any		8
	T-7	BWN-Q1000T7/ 4CL/TP	62,1	BWN	—	39792	24	G9.5	120	3200	250	28500	C-13D	60	114	BDTH		9
Table 9: Halogen, Single-Ended, G9.5/Heat Sink (Metal 2-Pin)																		
375	T-6	HPL375/C	18, 62			17608	12	G9.5/HS	115	3250	300	10540	4-C8	60	106	Any		10
		HPL375/LL	18, 62			18189	12	G9.5/HS	115	3050	1000	8000	4-C8	60	106	Any		10
550	T-6	HPL550/C 77V	18, 62			17607	12	G9.5/ HS	77	3250	300	16170	4-C8	60	106	Any		10



Watts	Bulb OD	GE Description	Footnotes/Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Filament Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 9: Halogen, Single-Ended, G9.5/Heat Sink (Metal 2-Pin) (continued)																		
575	T-6	HPL575/C 115V	62	—	—	92431	12	G9.5/HS	115	3200	300	16500	4-C8	60	106	Any		10
		HPL575/C 120V	62	—	—	92433	12	G9.5/HS	120	3200	300	16520	4-C8	60	106	Any		10
		HPL575/LL/C 115V	62	—	—	92434	12	G9.5/HS	115	3050	2000	12360	4-C8	60	106	Any		10
		HPL575/LL/C 120V	62	—	—	92435	12	G9.5/HS	120	3050	2000	12360	4-C8	60	106	Any		10
		HPL575	62	—	—	37128	12	G9.5/HS	230	3200	300	14900	6-C8	60	106	Any		11
		HPL575	62	—	—	37131	12	G9.5/HS	240	3200	300	14900	6-C8	60	106	Any		11
		HPL575-X LL	62	—	—	37817	12	G9.5/HS	230	3050	1500	11780	6-C8	60	106	Any		11
		HPL575-X LL	62	—	—	37818	12	G9.5/HS	240	3050	1500	11780	6-C8	60	106	Any		11
750	T-6	HPL750/C 115V	7, 62	—	—	92432	12	G9.5/HS	115	3200	300	22000	4-C8	60	106	Any		10
		HPL750/LL/C	7, 62	—	—	92770	12	G9.5/HS	115	3050	2000	16400	4-C8	60	106	Any		10
		HPL750	7, 62	—	—	37824	12	G9.5/HS	230	3200	300	19750	6-C8	60	106	Any		11
		HPL750	7, 62	—	—	37826	12	G9.5/HS	240	3200	300	19750	6-C8	60	106	Any		11
		HPL750-XLL-C	7, 62	—	—	92768	12	G9.5/HS	230	3050	1500	15600	6-C8	60	106	Any		11
		HPL750-XLL-C	7, 62	—	—	92769	12	G9.5/HS	240	3050	1500	15600	6-C8	60	106	Any		11

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 10: Halogen, Single-Ended, GX9.5 Prefocus Med 2-Pin																		
650	G-6 T-8	EKD-Q650/3CL/2PP	62	EKD	—	34328	24	GX9.5	120	3300	25	20000	CC-6	37	64	BDTHCH		
		T12	62		T12	39661	12	GX9.5	230	3000	750	13500	C-13	55	110	BDTH		12
		T12	62		T12	39663	12	GX9.5	240	3000	750	13500	C-13	55	110	BDTH		12
		CP23	62		CP23	39654	12	GX9.5	230	3200	100	16900	C-13	55	110	BDTH		12
		CP23	62		CP23	39660	12	GX9.5	240	3200	100	16900	C-13	55	110	BDTH		12
1000	G-11	CP24	62		CP24	39651	12	GX9.5	230	3200	200	26000	C-13	55	110	BDTH		13
		CP24	62		CP24	39653	12	GX9.5	240	3200	200	26000	C-13	55	110	BDTH		13
		Q1000T8/CL	62		T11	29331	24	GX9.5	120	3050	750	23500	C-13	55	110	BDTH		13
		T11	62		T11	39656	12	GX9.5	230	3050	750	23000	C-13	55	110	BDTH		13
		T11	62		T11	39659	12	GX9.5	240	3050	750	23000	C-13	55	110	BDTH		13
	T-11	FWP	62	FWP	T19	39657	12	GX9.5	230	3050	750	21000	C-13D	55	110	BDTH		12
		FWR	62	FWR	T19	39658	12	GX9.5	240	3050	750	21000	C-13D	55	110	BDTH		12
		FVA	62	FVA	CP70	39241	12	GX9.5	230	3200	200	25000	C-13D	55	110	BDTH		12
		FVB	62	FVB	CP70	39242	12	GX9.5	240	3200	200	25000	C-13D	55	110	BDTH		12
1200	G-11	T29	62		T29	39647	12	GX9.5	120	3050	400	30500	C-13D	67	125	BDTH		14
		FWS	62	FWS	T29	39723	12	GX9.5	230	3050	400	29000	C-13D	67	125	BDTH		14
		FWT	62	FWT	T29	39667	12	GX9.5	240	3050	400	29000	C-13D	67	125	BDTH		14

Lamp stocking color code: EUROPE ONLY, EUROPE and NORTH AMERICA, NORTH AMERICA ONLY

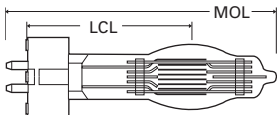


Fig. 14

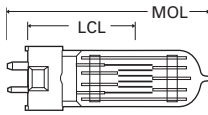


Fig. 15

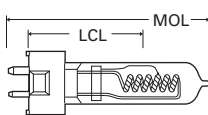


Fig. 16

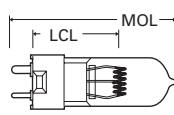


Fig. 17

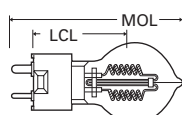


Fig. 18

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 10: Halogen, Single-Ended, GX9.5 Prefocus Med 2-Pin (continued)																		
1200	G-11	CP90	62		CP90	39724	12	GX9.5	230	3200	200	33000	C-13D	67	125	BDTH		14
		CP90	62		CP90	39725	12	GX9.5	240	3200	200	33000	C-13D	67	125	BDTH		14
Table 11: Halogen, Single-Ended, GY9.5 Oriented 2-Pin (2 OD Pins)																		
300	T-8	FKW-Q300T8	62	FKW	CP81	39781	24	GY9.5	120	3200	50	6900	C-13	46	90	BDTH		15
		FSL	62	FSL	CP81	39780	24	GY9.5	230	3200	150	6900	C-13	46	90	BDTH		15
		FSK	62	FSK	CP81	39779	24	GY9.5	240	3200	150	6900	C-13	46	90	BDTH		15
420	G-7	EKB-Q420/4CL/2PP	62	EKB	—	33934	24	GY9.5	120	3200	75	11000	CC-6	37	64	ANYCH		17
500	T-8	FRG-Q500T8	62	FRG	CP82	39623	24	GY9.5	120	3200	150	13000	C-13	46	90	BDTH		15
		FRH	62	FRH	CP82	39624	24	GY9.5	230	3200	150	12500	C-13	46	90	BDTH		15
		FRJ	62	FRJ	CP82	39628	24	GY9.5	240	3200	150	12500	C-13	46	90	BDTH		15
		GCV	62	GCV	T18	39717	24	GY9.5	230	3050	400	11000	C-13	46	90	BDTH		15

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 11: Halogen, Single-Ended, GY9.5 Oriented 2-Pin (2 OD Pins) (continued)																		
500	T-8	GCW	62	GCW	T18	39629	24	GY9.5	240	3050	400	11000	C-13	46	90	BDTH		15
		GCV	62	GCV	T25	39455	24	GY9.5	230	3000	360	11000	C-13D	46	90	BDTH		15
		GCW	62	GCW	T25	39262	24	GY9.5	240	3000	360	11000	C-13D	46	90	BDTH		15
600	T-5	FMR-Q600T5	62	FMR	—	30475	24	GY9.5	120	3050	2000	12600	CC-8	51	85	BDTHCH		16
650	T-8	GCT	62	GCT	T27	39456	24	GY9.5	230	3050	400	14500	C-13D	46	90	BDTH		15
		GCS	62	GCS	T27	39457	24	GY9.5	240	3050	400	14500	C-13D	46	90	BDTH		15
		FRE	62	FRE	T26	39630	24	GY9.5	120	3100	500	15500	C-13	46	90	BDTH		15
		GCT	62	GCT	T26	39635	24	GY9.5	230	3100	400	15500	C-13	46	90	BDTH		15
		GCS	62	GCS	T26	39636	24	GY9.5	240	3100	400	15500	C-13	46	90	BDTH		15
		FRK-Q650T8	62	FRK	CP89	39637	24	GY9.5	120	3200	200	16900	C-13	46	90	BDTH		15
		FRL	62	FRL	CP89	39640	24	GY9.5	230	3200	150	16250	C-13	46	90	BDTH		15
		FRM	62	FRM	CP89	39642	24	GY9.5	240	3200	150	16250	C-13	46	90	BDTH		15
Table 12: Halogen, Single-Ended, GZ9.5 Oriented 2-Pin (2 OD Pins)																		
235	T-4	Q235T4/3	62	—	—	11548	12	GZ9.5	33	3125	150	6000	CC-6	39	64	BDTHCH	Frosted	
600	G-7	DYS/DYV/BHC	62	DYS	A1/264	32955	24	GZ9.5	120	3200	75	17000	CC-6	37	64	BDTHCH		17
650	G-7	DYR	62	DYR	A1/233	26896	24	GZ9.5	220	3200	50	16500	2CC-8	37	64	Any		18
		DYR	62	DYR	A1/233	26895	24	GZ9.5	240	3200	50	16500	2CC-8	37	64	Any		18

Lamp stocking color code: EUROPE ONLY, EUROPE and NORTH AMERICA, NORTH AMERICA ONLY

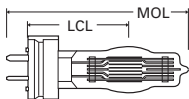


Fig. 19

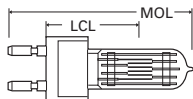


Fig. 20

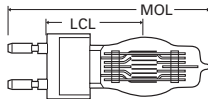


Fig. 21

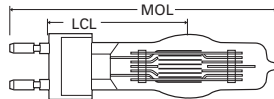


Fig. 22

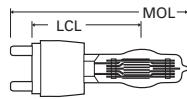


Fig. 23

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 13: Halogen, Single-Ended, GY16 2-Pin Prefocus (16mm Apart)																		
2000	G-13	FTM	62	FTM	CP43	20309	12	GY16	230	3200	400	54000	C-13	70	145	BDTH		19
		FTL	62	FTL	CP43	20310	12	GY16	240	3200	400	54000	C-13	70	145	BDTH		19
		CP79	62		CP79	90360	12	GY16	120	3200	350	54000	C-13D	70	145	BDTH		19
		CP79	62		CP79	30497	12	GY16	230	3200	350	54000	C-13D	70	145	BDTH		19
		CP79	62		CP79	30498	12	GY16	240	3200	350	54000	C-13D	70	145	BDTH		19
Table 14: Halogen, Single-Ended, G22 Medium Bi-post (22mm Apart)																		
500	T-8	EGN-Q500T8	62	EGN	—	30373	12	G22	120	3200	150	13000	C-13	64	140	BDTH		20
650	T-8	FKH	62	FKH	CP39	20320	12	G22	230	3200	100	16900	C-13	64	140	BDTH		20
		FKH	62	FKH	CP39	20321	12	G22	240	3200	100	16900	C-13	64	140	BDTH		20
750	T-7	EGR-Q750T7/4CL	1, 62	EGR	—	39190	12	G22	120	3200	200	21000	C-13D	64	127	BDTH		20

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 14: Halogen, Single-Ended, G22 Medium Bi-post (22mm Apart) (continued)																		
1000	T-7	EGT-Q1000T7/4CL	1, 62	EGT	—	39191	12	G22	120	3200	250	28500	C-13D	64	127	BDTH		20
	T-8	FKJ	62	FKJ	CP40	39655	12	G22	230	3200	200	26000	C-13	64	140	BDTH		20
		FKJ	62	FKJ	CP40	20286	12	G22	240	3200	200	26000	C-13	64	140	BDTH		20
1200	T-8	OC1200	62			91580	12	G22	80	3300	300	37500	C-13D	64	140	BDTH		20
	G-11	CP93	62		CP93	30384	12	G22	240	3200	200	33000	C-13D	64	140	BDTH		21
2000	G-13	CP92	62		CP92	30391	12	G22	120	3200	400	55000	C-13D	90	175	BDTH		22
		CP92	62		CP92	30394	12	G22	230	3200	400	52000	C-13D	90	175	BDTH		22
		CP92	62		CP92	30397	12	G22	240	3200	400	52000	C-13D	90	175	BDTH		22
2500	G-13	CP91	62		CP91	30415	12	G22	230	3200	400	67500	C-13D	90	175	BDTH		22
		CP91	62		CP91	30423	12	G22	240	3200	400	67500	C-13D	90	175	BDTH		22

Table 15: Halogen, Single-Ended, G38 Mogul Bi-post

1000	T-7	CYV-Q1000T7/ 4CL/BP	1, 62	CYV	—	42697	6	G38	120	3200	200	28500	C-13D	127	203	BDTH		23
1500	T-10	CXZ-Q1500T10/4CL	1, 62	CXZ	—	37564	6	G38	120	3200	400	44500	C-13	127	216	BDTH		23
2000	T-10	CYX-Q2000T10/4CL	1, 62	CYX	—	36636	6	G38	120	3200	350	59000	C-13	127	216	BDTH		23
	G-10	FKK	62	FKK	CP41	31844	12	G38	230	3200	400	54000	C-13	127	216	BDTH		23

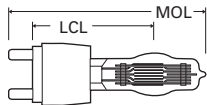


Fig. 23

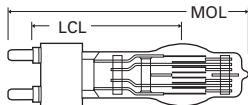


Fig. 24

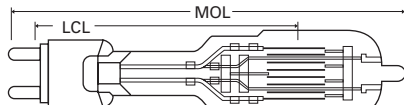


Fig. 25

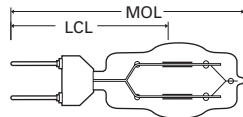


Fig. 28

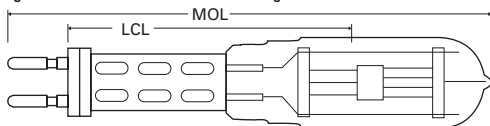


Fig. 26

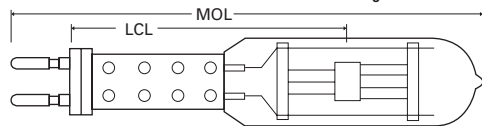


Fig. 27

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Filament Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
2000	G-10	FKK	62	FKK	CP41	31849	12	G38	240	3200	400	54000	C-13	127	216	BDTH		23
	T-8	BWA-Q2000/4CL/BP	1, 55, 62	BWA	—	39587	6	G38	120	3200	500	54000	CC-8	127	210	BDTH		23
2500	G-13	CP94	62		CP94	30500	12	G38	240	3200	400	67500	C-13D	127	210	BDTH		23
3000	G-15	HX48	62		HX48	30503	12	G38	230	3200	400	82000	C-13	127	210	BD45		23
		HX48	62		HX48	30504	12	G38	240	3200	400	82000	C-13	127	210	BD45		23
5000	T-20	DPY-Q5000T20/4CL	1, 62	DPY	CP29	41736	6	G38	120	3200	500	143000	C-13	165	279	BD45		24
	G-20	CP29	62		CP29	30505	12	G38	230	3200	500	135000	C-13	165	279	BDTH		24

Table 15: Halogen, Single-Ended, G38 Mogul Bi-post (continued)

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 15: Halogen, Single-Ended, G38 Mogul Bi-post (continued)																		
5000	G-20	CP29	62		CP29	30506	12	G38	240	3200	500	135000	C-13	165	279	BDTH		24
	T20	HX5000	62			22959	6	G38	120	3200	250	147000	Axial	165	280	Any		24
		HX5000/240	62			71379	6	G38	240	3200	250	133000	Axial	165	270	Any		24
10000	T-24	DTY-Q10M/T24/4CL	1, 62	DTY	—	24886	4	G38	120	3200	300	290000	C-13	254	400	BD45		25
	T-27	CP83	62		CP83	12036	1	G38	230	3200	500	280000	C-13	254	405	BDTH		25
		CP83	62			CP83	12037	1	G38	240	3200	500	280000	C-13	254	405	BDTH	
Table 16: Halogen, Single-Ended, GX38 Mogul Bi-post (38mm Apart)																		
12000	T-26	Q12MT26/4CL	62	—	—	48770	1	GX38	120	3400	150	420000	C-13	254	410	BD45		26
		Q12MT26/4CL	62	—	—	48771	1	GX38	230	3400	130	420000	C-13	254	410	BD45		26
		Q12MT26/4CL	62	—	—	48779	1	GX38	240	3400	130	420000	C-13	254	410	BD45		26
20000	T-32	BCM-Q20MT32/4CL	62	BCM	—	48772	1	GX38	208	3200	400	580000	C-13	354	560	BD45		27
		BCM-Q20MT32/4CL	62	BCM	—	48773	1	GX38	230	3200	400	580000	C-13	354	560	BD45		27
		BCM-Q20MT32/4CL	62	BCM	—	48774	1	GX38	240	3200	400	580000	C-13	354	560	BD45		27
24000	T-32	Q24MT32/4CL	62	—	—	48776	1	GX38	230	3400	150	800000	C-13	354	560	BD45		27
		Q24MT32/4CL	62	—	—	48777	1	GX38	240	3400	150	800000	C-13	354	560	BD45		27

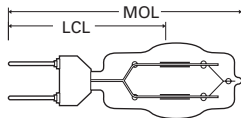


Fig. 28

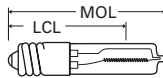


Fig. 29

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Filament Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 17: Halogen, Single-Ended, GX38Q, High Volt, 2 Filament																		
1250	G-18	CP105-1250/650	62		CP105	34056	12	GX38q	230	3050	250	27M 13M	2C-13	143	220	BD45		28
		CP105-1250/650	62		CP105	34024	12	GX38q	240	3050	250	27M 13M	2C-13	143	220	BD45		28
		CP30-1250/1250	62		CP30	30513	12	GX38q	230	3200	300	27M 56M	2C-13	143	220	BD45		28
		CP30-1250/1250	62		CP30	30514	12	GX38q	240	3200	300	27M 56M	2C-13	143	220	BD45		28
	G-22	CP58-1250/2500	62		CP58	30517	12	GX38q	240	3200	300	27M 91M	2C-13	143	220	BD45		28

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 17: Halogen, Single-Ended, GX38Q, High Volt, 2 Filament (continued)																		
2500	G-22	CP32-2500/2500	62		CP32	30518	12	GX38q	230	3200	300	59M 127M	2C-13	143	220	BD45		28
		CP32-2500/2500	62		CP32	30519	12	GX38q	240	3200	300	59M 127M	2C-13	143	220	BD45		28
Table 18: Halogen, Single-Ended, E11 Miniature Candelabra Screw																		
100	T-4	Q100CL/MC/2V	62	ESN	—	44385	6	E11	120	2950	750	1800	CC-2V	35	71	Any		29
		Q100CL/MC	62	—	—	15507	6	E11	120	2950	2000	1600	CC-8	35	71	Any		29
		Q100MC	62	—	—	16452	6	E11	120	2950	2000	1550	CC-8	35	71	Any	Frosted	29
150	T-4	Q150CL/MC	62	ETG	—	43694	6	E11	120	2950	2000	2800	CC-8	35	76	Any		29
		Q150MC	62	ETH	—	44654	6	E11	120	2950	2000	2700	CC-8	35	76	Any	Frosted	29
250	T-4	Q250CL/MC	62	—	—	43700	6	E11	130	2950	2000	5000	CC-8	41	80	Any		29
		Q250CL/MC	62	EHT	—	43699	6	E11	120	2950	2000	5000	CC-8	41	80	Any		29
		Q250MC	62	—	—	43696	6	E11	130	2950	2000	4850	CC-8	41	80	Any	Frosted	29
		Q250MC	62	ESM	—	43695	6	E11	120	2950	2000	4850	CC-8	41	80	Any	Frosted	29
400	T-4	Q400CL/MC	62	—	—	43707	6	E11	120	2950	2000	8250	CC-8	51	92	Any		29
		Q400MC	62	—	—	43706	6	E11	120	2950	2000	7850	CC-8	51	92	Any	Frosted	29

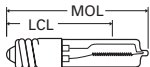


Fig. 29



Fig. 30

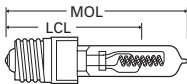


Fig. 31



Fig. 32



Fig. 33

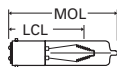


Fig. 34

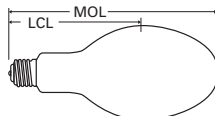


Fig. 77

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Filament Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
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Table 18: Halogen, Single-Ended, E11 Miniature Candelabra Screw (continued)

500	T-4	EVR-Q500CL/MC	16, 62	EVR	—	47950	6	E11	120	2950	2000	10450	CC-8	51	92	Any		29
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Table 19: Incandescent, Single-Ended, E26 Medium Screw

250	A-21	BBA (#1)	21	BBA	—	40563	24	E26	120	3400	3	8000	C-9		125	Any	Frosted	30
		BCA (#B1)		BCA	—	40564	24	E26	120	4800	3	5000	C-9		125	Any	Frosted	30
	A-23	ECA		ECA	—	40565	24	E26	120	3200	20	6500	C-9		152	Any	Frosted	30
300	A-21	BAH		BAH	—	40886	24	E26	115	3200	20	9000	C-9		125	Any	Frosted	30
400	G-30	400G/FL		—	—	21363	60	E26	120		800	6800	C-5		130	BDTH	Frosted	30
500	PS-25	EBV (#2)	21	EBV	—	40566	24	E26	120	3400	6	17000	C-9	133	176	Any	Frosted	30
		EBW (#B2)		EBW	—	40567	24	E26	120	4800	6	10500	C-9	133	176	Any	Frosted	30
		ECT		ECT	—	40568	24	E26	120	3200	60	13650	C-9	133	176	Any	Frosted	30

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 20: Halogen, Single-Ended, E39 Mogul Screw																		
1000	PS-52	DKZ/DSE-Q1000 PS52/4	1, 51, 62	DKZ	—	39582	12	E39	120	3200	750	28000	CC-8	241	330	Any	Frosted	30
	E37	DSE-Q1000	1, 62	DSE		19926	10	E39	120	3200	750	28000	CC-8	241	330	Any	Frosted	31
1500	PS-52	DKX/DSF-Q1500 PS52/4	1, 51, 62	DKX	—	40357	12	E39	120	3200	1000	41000	C-8	241	330	Any	Frosted	30
	E37	DSF-Q1500	1, 62	DSF		19927	10	E39	120	3200	1000	41000	C-8	241	330	Any	Frosted	31
2000	T-8	BWF-Q2000/4CL	62	BWF	—	37086	6	E39	120	3200	500	54000	CC-8	133	191	Any		31
	T-10	CP59	62	CP59		29426	12	E39	240	3200	300	50000	CC-8	133	191	Any		31
Table 21: Halogen/Incandescent, Single-Ended, BA15d Double Contact Bayonet																		
30	S-11	BLC		BLC	—	29140	120	BA15d	120	2775	50	400	CC-2V	35	60	Any		32
50	S-11	BLX		BLX	—	29156	120	BA15d	120	2850	50	780	CC-2V	44	60	BDTH		32
	T-8	CAX		CAX	—	29171	24	BA15d	120	2875	50	775	CC-2V	35	79	BD30		33
75	T-8	CBX/CBS	20	CBX	—	29208	24	BA15d	120	2925	50	1200	CC-13	35	79	BD30		33
100	T-8	CDJ		CDJ	—	29266	24	BA15d	120	2975	50	2000	CC-2V	35	79	BD30		33
		CEB		CEB	—	29244	24	BA15d	120	2975	50	1850	CC-13	35	79	BD30		33
	T-4	Q100CL/DC/2V	62	ESR	—	44386	6	BA15d	120	2950	750	1800	CC-2V	35	62	Any		34

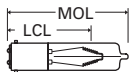


Fig. 34

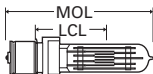


Fig. 35

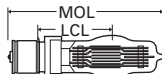


Fig. 36

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
100	T-4	Q100CL/DC	62	—	—	15508	6	BA15d	120	2950	2000	1600	CC-8	35	62	Any		34
		Q100DC	62	—	—	16451	6	BA15d	120	2950	2000	1550	CC-8	35	62	Any	Frosted	34
150	T-4	Q150CL/DC/2V	62	ESP	—	44384	6	BA15d	120	2950	1000	2800	CC-2V	35	62	Any		34
		Q150CL/DC	62	ETC	—	43693	6	BA15d	120	2950	2000	2800	CC-8	35	62	Any		34
		Q150DC	62	ETF	—	44653	6	BA15d	120	2950	2000	2700	CC-8	35	62	Any	Frosted	34
200	T-4	FEV-Q200/4CL/DC	62	FEV	—	14119	6	BA15d	120	3200	50	5500	CC-2V	35	62	Any		34
250	T-4	Q250CL/DC	62	ESS	—	43697	6	BA15d	120	2950	2000	5000	CC-8	41	76	Any		34
		Q250CL/DC	62	—	—	43698	6	BA15d	130	2950	2000	5000	CC-8	41	76	Any		34
		Q250DC	62	ETB	—	43701	6	BA15d	120	2950	2000	4850	CC-8	41	76	Any	Frosted	34
		Q250DC	62	—	—	43702	6	BA15d	130	2950	2000	4850	CC-8	41	76	Any	Frosted	34
500	T-4	Q500CL/DC	62	—	—	43710	6	BA15d	120	2950	2000	10450	CC-8	54	87	Any		34
		Q500DC	62	—	—	43709	6	BA15d	120	2950	2000	10100	CC-8	54	87	Any	Frosted	34

Table 21: Halogen/Incandescent, Single-Ended, BA15d Double Contact Bayonet (continued)

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila- ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 22: Halogen/Incandescent, Single-Ended, P28s Medium Prefocus																		
500	T-6	BTL-Q500T6/CL/P	62	BTL	T17	11966	12	P28s	120	3000	500	11000	C-13	55	133	BDTH		35
		BTM-Q500T6/ 4CL/2P	62	BTM	—	16465	12	P28s	120	3200	150	13000	C-13	55	130	BDTH		35
		FKF	62	FKF	T17	30535	12	P28s	230	2950	750	9500	C-13	55	130	BDTH		35
		T17	62		T17	30536	12	P28s	240	2950	750	9500	C-13	55	130	BDTH		35
		T28	62		T28	39731	12	P28s	230	3000	300	11000	C-13	55	130	BDTH		35
		T28	62		T28	39733	12	P28s	240	3000	300	11000	C-13	55	130	BDTH		35
650	T-8	FKB	62	FKB	T13	30541	12	P28s	230	3000	750	13500	C-13	55	130	BDTH		35
		T13	62		T13	30542	12	P28s	240	3000	750	13500	C-13	55	130	BDTH		35
		CP51	62		CP51	20324	12	P28s	240	3200	200	16900	C-13	55	130	BDTH		35
750	T-7	BTN-Q750T7/CL/2P	1, 62	BTN	—	11953	12	P28s	120	3050	500	17600	C-13D	55	121	BD30		35
		BTP-Q750T7/4CL/2P	1, 62	BTP	—	11954	12	P28s	120	3200	200	21000	C-13D	55	121	BD30		35
1000	T-7	BTR-Q1000T7/ 4CL/2P	1, 62	BTR	—	11955	12	P28s	120	3200	250	28500	C-13D	55	121	BD30		35
		G-11	FKD	62	FKD	T14	20385	12	P28s	230	3050	750	23000	C-13D	55	130	BDTH	
	T14		62		T14	20388	12	P28s	240	3050	750	23000	C-13D	55	130	BDTH		36

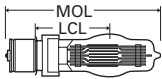


Fig. 36

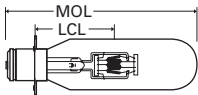


Fig. 37

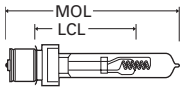


Fig. 38

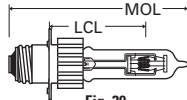


Fig. 39

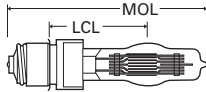


Fig. 40

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 22: Halogen/Incandescent, Single-Ended, P28s Medium Prefocus (continued)																		
1000	G-11	FKN	62	FKN	CP52	30546	12	P28s	240	3200	200	26000	C-13D	55	121	BDTH		36
	T-20	DRS		DRS	A1/58	29947	24	P28s	120	3325	25	28500	C-13D	55	146	BD30		37
		DRB		DRB	—	29968	24	P28s	120	3350	25	32000	C-13	55	146	BD30		37
Table 23: Halogen, Single-Ended, P28s with CC-8 Coil																		
500	T-4	EGE-Q500CL/P	62	EGE	—	39135	12	P28s	120	2950	2000	10450	CC-8	89	152	Any		38
		EGC-Q500/5CL/P	62	EGC	—	39134	12	P28s	120	3150	500	12700	CC-8	89	152	Any		38
750	T-6	EGG-Q750CL/P	62	EGG	—	39137	12	P28s	120	3000	2000	15750	CC-8	89	152	Any		38
		EGF-Q750/4CL/P	62	EGF	—	39136	12	P28s	120	3200	300	20400	CC-8	89	152	Any		38
1000	T-6	EGJ-Q1000/4/CL/P	62	EGJ	—	38853	12	P28s	120	3200	300	27500	CC-8	89	152	Any		38
		EGK-Q1000/4/P	62	EGK	—	38852	12	P28s	120	3200	300	26500	CC-8	89	152	Any	Frosted	38
		EGM-Q1000CL/P	62	EGM	—	39138	12	P28s	120	3000	2000	21500	CC-8	89	152	Any		38

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Product Order Code	Std. Pack Qty.	Base Type	Design Volts	Design Color Temp (K)	Rated Life (hrs)	Initial Design Lumens	Fila-ment Type	LCL (mm)	MOL (mm)	Burning Position	Bulb Finish	Fig. No.
Table 23: Halogen, Single-Ended, P28s with CC-8 Coil (continued)																		
1000	T-6	EWE	62	EWE	—	30534	12	P28s	240	3200	250	26500	CC-8	89	152	BDTH		38
	G-11	FKE	62	FKE	T15	30532	12	P28s	240	3050	750	23000	C-13	89	160	BDTH		36
Table 24: Halogen, Single-Ended, P40 Mogul Prefocus																		
1000	T-7	BVT-Q1000T7/ CL/MP	1, 62	BVT	—	12554	6	P40s	120	3050	500	24500	C-13D	100	184	BDTH		39
		BVV-Q1000T7/ 4CL/MP	1, 62	BVV	—	12553	6	P40s	120	3200	200	28500	C-13D	100	184	BDTH		39
	G-11	T16	62		T16	30521	12	P40s	240	3050	750	23000	C-13	87	180	BDTH		40
1500	T-8	DTA-Q1500T8/4CL	62	DTA	—	30522	6	P40s	120	3200	300	41000	C-13D	87	200	BDTH		39
2000	T-10	BVW-Q2000T10/ 4CL/MP	62	BVW	CP53	12555	6	P40s	120	3200	350	59000	C-13	100	215	BDTH		39
		CP53	62		CP53	20311	12	P40s	230	3200	400	54000	C-13	87	200	BDTH		40
	G-13	CP53	62		CP53	20312	12	P40s	240	3200	400	54000	C-13	87	200	BDTH		40

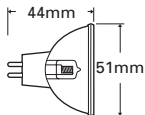


Fig. 41

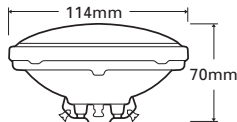


Fig. 42

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 25: MR16 (2" Reflector)																
50	EFM BULK 50PK	63	EFM		8	21276	50	GX5.3	3300	50					Any	41
75	EFN	63	EFN		12	21277	50	GX5.3	3350	50					Any	41
100	EFP BULK 50PK	63	EFP		12	21278	50	GX5.3	3350	50					Any	41
	EXV	63	EXV		12	12003	20	GX5.3	3350	50				3100	Any	41
150	EFR	63	EFR		15	21279	50	GX5.3	3350	50					Any	41
	EZK	63	EZK	—	120	15477	20	GY5.3	3200	200				3600	Any	41
250	ENH	63	ENH	—	120	38686	20	GY5.3	3250	175				11700	BDTH	41
	EXX	63	EXX	—	120	11750	20	GY5.3	3300	25				6750	Any	41
	ELC	63	ELC		24	37462	20	G5.3	3400	50					Any	41
	ELC/500	18, 63	ELC		24	15377	20	G5.3	3350	500					Any	41

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 26: PAR36 (4.5" Reflector)																
25	25PAR36	12			5.5	14553	12	Scr. Term.	3000	1000	VNSP		5	19700	Any	42
	25PAR36NSP	12	—	—	12	14554	12	Scr. Term.		2000	NSP		9	2600	Any	42
	25PAR36WFL	12	—	—	12	14555	12	Scr. Term.		2000	WFL	49 X 41	37 X 26	360	Any	42
	25PAR36/VWFL	12	—	—	12	14556	12	Scr. Term.		2000	VWFL		55	160	Any	42
30	H4515	12, 307	—	—	6.4	15133	12	Scr. Term.		100	VNSP	5.5 X 4		67000	Any	42
	4515	12	—	—	6.4	24673	12	Scr. Term.		100	VNSP	5 X 5		55000	Any	42
	4405	12	—	—	12.8	24425	12	Scr. Term.		100	VNSP	6 X 5		50000	Any	42
	H4405	12, 307	—	—	12.8	15129	12	Scr. Term.		100	VNSP	7 X 4		66000	Any	42
35	35PAR36/H/SP5	307	—	—	12	19873	12	Scr. Term.	3050	4000	VNSP		5	25000	Any	42
	35PAR36/H/FL30	307	—	—	12	19877	12	Scr. Term.	3050	4000	WFL		30	900	Any	42
	35PAR36/H/SP8	307	—	—	12	19876	12	Scr. Term.	3050	4000	NSP		8	20000	Any	42
37.5	H7616	307	—	—	12.8	42838	12	Scr. Term.		300	VNSP	7 X 4		70000	Any	42
50	50PAR36/H/SP8	307	—	—	12	19879	12	Scr. Term.	3050	4000	NSP		8	30000	Any	42
	50PAR36/H/SP5	307	—	—	12	19878	12	Scr. Term.	3050	4000	VNSP		5	35000	Any	42
	50PAR36/H/FL30	307	—	—	12	19880	12	Scr. Term.	3050	4000	WFL		30	1300	Any	42
	50PAR36VNSP	12	—	—	12	12892	12	Scr. Term.		2000	VNSP		6	19000	Any	42
	50PAR36NSP	12	—	—	12	16540	12	Scr. Term.		2000	NSP		10	11000	Any	42

Lamp stocking color code: EUROPE ONLY, EUROPE and NORTH AMERICA, NORTH AMERICA ONLY

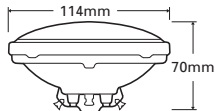


Fig. 42

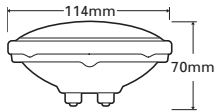


Fig. 43

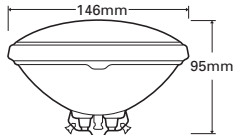


Fig. 44

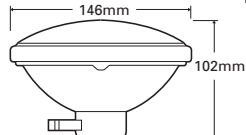
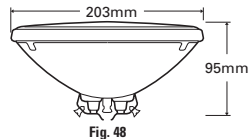
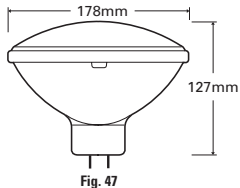
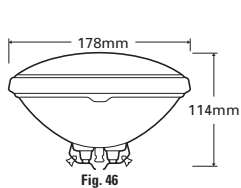


Fig. 45

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
50	50PAR36WFL	12	—	—	12	16541	12	Scr. Term.		2000	WFL	48 X 41	36 X 28	900	Any	42
	50PAR36WFL/4	12	—	—	12	11468	12	Scr. Term.		4000	WFL	48 X 41	36 X 28	720	Any	42
	50PAR36VWFL		—	—	12	16542	12	Scr. Term.		2000	VWFL		55	600	Any	42
	H7604	307	—	—	12.8	43576	12	Scr. Term.		100	VNSP	7 X 5		100000	Any	42
	4505		—	—	28	24640	12	Scr. Term.		400	VNSP	11 X 5		45000	Any	42
100	4509		—	—	13	24650	12	Scr. Term.		25	VNSP	12 X 6		110000	Any	42
	4509X	12	—	—	13	41503	12	Scr. Term.		25	VNSP	12 X 6		110000	Any	42
	4595		—	—	28	24892	12	Scr. Term.		300	VNSP	14 X 6		60000	Any	42
	4591		—	—	28	24882	12	Scr. Term.		25	VNSP	12 X 6		90000	Any	42
	4594		—	—	28	24891	12	Scr. Term.		300	VNSP	13 X 7		70000	Any	42
650	DWE-Q650PAR36/1	63	DWE	—	120	41667	12	Scr. Term.	3200	100	MFL		40 X 30	24000	H15	42
	FAY-Q650PAR36/3D	63	FAY	—	120	41668	12	Ferrule	5000	30	SP		25 X 15	36000	H15	43

Table 26: PAR36 (4.5" Reflector) (continued)

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 26: PAR36 (4.5" Reflector) (continued)																
650	FBE-Q650PAR36/5D	63	FBE	—	120	41669	12	Scr. Term.	5000	30	SP		25 X 15	36000	H15	42
	FBO-Q650PAR36/5	63	FBO	—	120	41671	12	Scr. Term.	3400	30	SP		25 X 15	67000	H15	42
	FCW-Q650PAR36/6	63	FCW	—	120	41672	12	Ferrule	3200	100	FL		60 X 55	9000	H15	43
	FCX-Q650PAR36/7	63	FCX	—	120	41673	12	Ferrule	3200	100	MFL		40 X 30	24000	H15	43
Table 27: PAR46 (5.75" Reflector)																
25	25PAR46	12	—	—	5.5	14562	12	Scr. Term.		1000	VNSP	5.5 X 4.5		55000	Any	44
30	4535	12	—	—	6.4	24735	12	Scr. Term.		100	VNSP	5.5 X 4		95000	Any	44
	4435	12	—	—	12.8	24577	12	Scr. Term.		100	VNSP	5 X 5		75000	Any	44
35	4436		—	—	12.8	24582	12	Scr. Term.		300	VNSP	10 X 4		60000	Any	44
50	H7635	307	—	—	12.8	43591	12	Scr. Term.		100	VNSP	6.5 X 4		160000	Any	44
150	150PAR46/1	64	—	—	32	19512	12	Scr. Term.		800	VNSP	9 X 9		100000	Any	44
	150PAR46/3MFL	64	—	—	125	41968	12	MSP	2750	2000	MFL	39 X 25	26 X 13	8000	Any	45
200	200PAR46/3NSP	64	—	—	120	20115	12	MSP	2750	2000	NSP	23 X 19	12 X 8	31000	Any	45
	200PAR46/3NSP	64	—	—	130	20117	12	MSP	2750	2000	NSP	23 X 19	12 X 8	31000	Any	45
	200PAR46/3MFL	64	—	—	120	20138	12	MSP	2750	2000	MFL	40 X 24	27 X 13	11500	Any	45
	200PAR46/3MFL	64	—	—	130	20140	12	MSP	2750	2000	MFL	40 X 24	12 X 13	11500	Any	45
250	4553		—	—	28	24799	12	Scr. Term.		25	VNSP	11 X 12		300000	Any	44



Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 28: PAR56 (7" Reflector)																
100	4545		—	—	12	24768	12	Scr. Term.		100	VNSP	9 X 5		225000	Any	46
	4543		—	—	12.5	24764	12	Scr. Term.		50	VNSP	9 X 5		225000	Any	46
120	120PAR56/VNSP	64	—	—	12	19023	12	Scr. Term.		2000	VNSP	15 X 10	8 X 6	60000	Any	46
	120PAR56/MFL	64	—	—	12	19024	12	Scr. Term.		2000	MFL	29 X 15	18 X 9	19000	Any	46
	120PAR56/WFL	64	—	—	12	19025	12	Scr. Term.		2000	WFL	50 X 25	35 X 18	5625	Any	46
200	200PAR		—	—	30	20122	12	Scr. Term.		350	VNSP	9 X 9		230000	Any	46
	200PAR56/MFL	64	—	—	120	49889	12	MEP	2750	2000	MFL	34 X 22	22 X 13	15000	Any	47
240	240PAR56/VNSP		—	—	12	20575	12	Scr. Term.		2000	VNSP	17 X 10	9 X 6	140000	Any	46
	240PAR56/MFL		—	—	12	20576	12	Scr. Term.		2000	MFL	28 X 15	19 X 8	46000	Any	46
	240PAR56/WFL		—	—	12	20577	12	Scr. Term.		2000	WFL	50 x 27	35 x 18	13000	Any	46

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 28: PAR56 (7" Reflector) (continued)																
300	300PAR56/NSP	64	—	—	120	20803	12	MEP	2750	2000	NSP	20 X 14	10 X 8	68000	Any	47
	300PAR56/MFL	64	—	—	120	20836	12	MEP	2750	2000	MFL	34 X 19	23 X 11	24000	Any	47
	300PAR56/WFL	64	—	—	120	20849	12	MEP	2750	2000	WFL	57 X 27	37 X 18	11000	Any	47
	300PAR/WFL	64	—	—	130	20851	12	MEP	2750	2000	WFL	57 X 27	37 X 18	11000	Any	47
	300PAR/NSP	64	—	—	230	20853	12	MEP		2000	NSP			40000	Any	47
	300PAR/MFL	64			230	20852	12	MEP		2000	MFL			30000	Any	47
	300PAR/WFL	64			230	20854	12	MEP		2000	WFL			10000	Any	47
	300PAR/MFL	64			240	18677	12	MEP		2000	MFL			30000	Any	47
	300PAR/NSP	64			240	18676	12	MEP		2000	NSP			40000	Any	47
300PAR/WFL	64			240	18678	12	MEP		2000	WFL			10000	Any	47	
450	4541		—	—	28	24756	12	Scr. Term.		25	NSP	15 X 11		470000	Any	46
500	Q500PAR56NSP	63	—	—	120	43494	6	MEP	2950	4000	NSP	32 X 15	13 X 8	96000	Any	47
	Q500PAR56MFL	63	—	—	120	43495	6	MEP	2950	4000	MFL	42 X 20	26 X 10	43000	Any	47
	Q500PAR50WFL	63	—	—	120	43496	6	MEP	2950	4000	WFL	66 X 34	44 X 20	19000	Any	47
Table 29: PAR64 (8" Reflector)																
120	120PAR	12	—	—	6	39395	12	Scr. Term.		3000	VNSP	9 X 5		180000	Any	48
250	4552		—	—	28	40576	12	Scr. Term.		25	VNSP	8 X 7		50000	Any	48

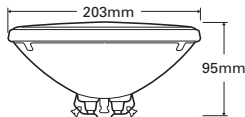


Fig. 48

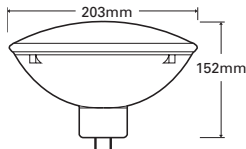


Fig. 49

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 29: PAR64 (8" Reflector) (continued)																
600	4559		—	—	28	40578	12	Scr. Term.		25	VNSP	11 X 12		600000	Any	48
	Q4559	63	—	—	28	40579	12	Scr. Term.		100	VNSP	12 X 8		600000	Any	48
	Q4559X	63	—	—	28	42552	12	Scr. Term.		100	VNSP	11 X 7.5		765000	Any	48
500	500PAR64/NSP	64	—	—	120	39406	12	EMEP	2800	2000	NSP	19 X 14	12 X 7	110000	Any	49
	500PAR64/MFL	64	—	—	120	39409	12	EMEP	2800	2000	MFL	35 X 19	23 X 11	37000	Any	49
	500PAR64/WFL	64	—	—	120	39412	12	EMEP	2800	2000	WFL	55 X 32	42 X 20	13000	Any	49
	500/PAR64/MFL	64	—	—	230	39411	12	EMEP	2700	2000	WFL	32 X 19	21 X 10		Any	49
	500/PAR64/WFL	64	—	—	230	39414	12	EMEP	2700	2000	WFL	55 X 32	42 X 20		Any	49
	Q500PAR64/VNSP	63		CP86	230	25492	6	EMEP	3200	300	VNSP	16 X 13	10 X 7	240000	Any	49
	Q500PAR64/VNSP	63		CP86	240	25493	6	EMEP	3200	300	VNSP	16 X 13	10 X 7	240000	Any	49
Q500PAR64/NSP	63		CP87	230	25504	6	EMEP	3200	300	NSP	19 X 16	11 X 9	140000	Any	49	

Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 29: PAR64 (8" Reflector) (continued)																
500	Q500PAR64/NSP	63		CP87	240	25507	6	EMEP	3200	300	NSP	19 X 16	11 X 9	140000	Any	49
	Q500PAR64/MFL	63		CP88	230	25513	6	EMEP	3200	300	MFL	32 X 19	21 X 10	65000	Any	49
	Q500PAR64/MFL	63		CP88	240	25520	6	EMEP	3200	300	MFL	32 X 19	21 X 10	65000	Any	49
1000	Q1000PAR64NSP	63	—	—	120	43497	6	EMEP	3000	4000	NSP	31 X 14	15 X 8	200000	Any	49
	Q1000PAR64MFL	63	—	—	120	43498	6	EMEP	3000	4000	MFL	45 X 22	28 X 12	80000	Any	49
	Q1000PAR64WFL	63	—	—	120	43499	6	EMEP	3000	4000	WFL	72 X 45	48 X 24	33000	Any	49
	FFN-Q1000PAR64/1	63	FFN		120	13233	6	EMEP	3200	800	VNSP	24 X 10	12 X 6	400000	Any	49
	FFP-Q1000PAR64/2	63	FFP		120	13229	6	EMEP	3200	800	NSP	26 X 14	14 X 7	330000	Any	49
	FFR-Q1000PAR64/5	63	FFR		120	13228	6	EMEP	3200	800	MFL	44 X 21	28 X 12	125000	Any	49
	FFS-Q1000PAR64/6	63	FFS		120	13227	6	EMEP	3200	800	WFL	71 X 45	48 X 24	40000	Any	49
	FGM-Q1000PAR64/3D	63	FGM		120	13226	6	EMEP	5200	200	NSP	24 X 12	13 X 6	200000	Any	49
	FGN-Q1000PAR64/7D	63	FGN		120	13225	6	EMEP	5200	200	MFL	43 X 20	27 X 11	70000	Any	49
	EXC-Q1MPAR64CP60	63	EXC	CP60	230	93409	6	EMEP	3200	300	VNSP	20 X 17	12 X 9	352000	Any	49
	EXC-Q1MPAR64CP60	63	EXC	CP60	240	10925	6	EMEP	3200	300	VNSP	20 X 17	12 X 9	352000	Any	49
	EXD-Q1MPAR64CP61	63	EXD	CP61	230	10928	6	EMEP	3200	300	NSP	22 X 20	14 X 10	297000	Any	49
	EXD-Q1MPAR64CP61	63	EXD	CP61	240	10929	6	EMEP	3200	300	NSP	22 X 20	14 X 10	297000	Any	49
	EXE-Q1MPAR64CP62	63	EXE	CP62	230	10930	6	EMEP	3200	300	MFL	38 X 20	24 X 11	138000	Any	49

Lamp stocking color code: EUROPE ONLY, EUROPE and NORTH AMERICA, NORTH AMERICA ONLY

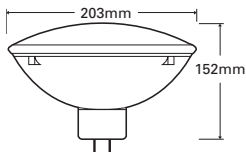
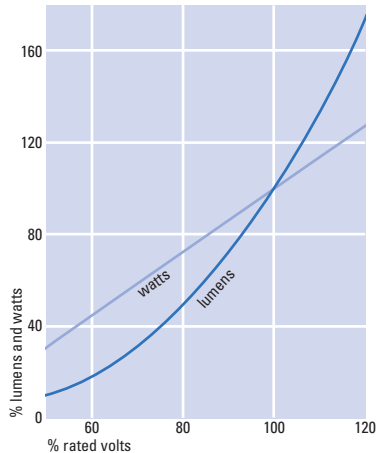


Fig. 49

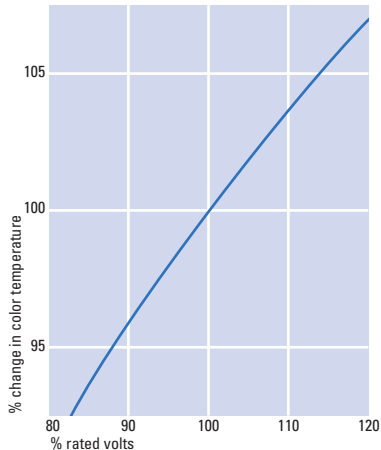
Watts	GE Description	Footnotes/ Safety Notices	ANSI Code	LIF Code	Volts	Product Order Code	Std. Pack Qty.	Base	Design Color Temp (K)	Rated Life (hrs)	Beam Descr.	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Approx. CP ⁶	Burning Position	Fig. No.
Table 29: PAR64 (8" Reflector) (continued)																
1000	EXE-Q1MPAR64CP62	63	EXE	CP62	240	10931	6	EMEP	3200	300	MFL	38 X 20	24 X 11	138000	Any	49
	EXG/PAR64/WFL	63	EXG		230	35482	6	EMEP	3200	300	WFL	73 X 36	57 X 21	38000	Any	49
	EXG/PAR64/WFL	63	EXG		240	35483	6	EMEP	3200	300	WFL	73 X 36	57 X 21	38000	Any	49
	CP95	63		CP95	230	30277	6	EMEP	3200	300		125 X 95	70 X 70	15000	Any	49
	CP95	63		CP95	240	30278	6	EMEP	3200	300		125 X 95	70 X 70	15000	Any	49
1200	GFC-Q1200PAR64/1	63	GFC	—	120	34808	6	EMEP	3200	400	VNSP	14 x 16	8 x 10	540000	Any	49
	GFB-Q1200PAR64/2	63	GFB	—	120	34810	6	EMEP	3200	400	NSP	16 X 18	8 X 10	450000	Any	49
	GFA-Q1200PAR64/5	63	GFA	—	120	34812	6	EMEP	3200	400	MFL	22 X 36	13 X 24	160000	Any	49

QUARTZLINE® HALOGEN LAMP PERFORMANCE

Variation of Light Output and Wattage with Applied Voltage for a Typical Studio Lamp

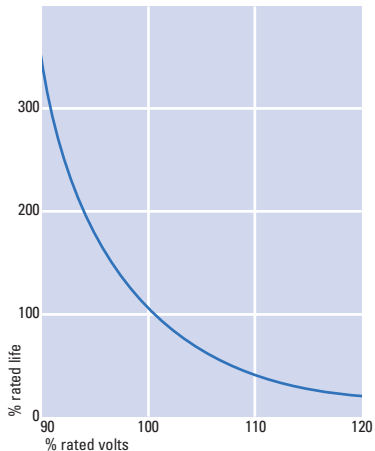


Color Temperature Variation with Voltage for a Typical Studio Lamp



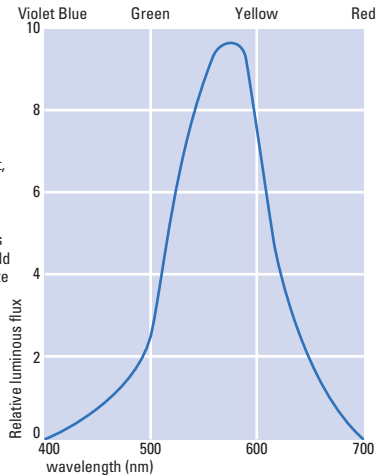
QUARTZLINE® HALOGEN LAMP PERFORMANCE (CONTINUED)

Typical Life Variation Against Operation Voltage



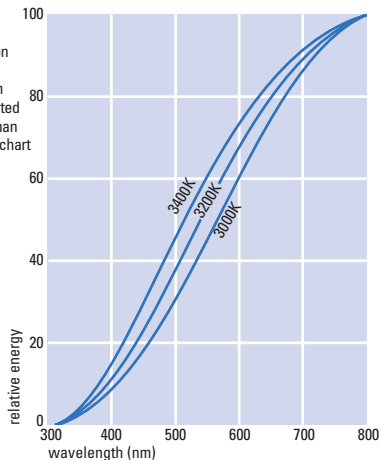
Spectral Distribution of Luminous Flux (Lumens) for Typical Theater and Studio Lamp

Calculations of lamp life achievement taken from this graph should be considered strictly theoretical as the life factor is considerably influenced by frequency of switching, environment, vibration, handling, cleaning, etc. This graph is based on the average achievement of numerous lamp tests, and thus should be used as an approximate guide to performance.



Total Spectral Energy Distribution of Typical Studio Lamp

Spectral energy distribution can be shown in absolute terms whereas radiation in terms of visible light is related to the response of the human eye. (Spectral distribution chart on previous page).



Operating Temperature of Tungsten Halogen Studio Lamps

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

Seal: 500°C Maximum

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

Bulb: 250° – 800°C

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

Pins: 350°C Maximum

Above this figure the plating on the pins may lose adhesion and the contact will deteriorate. Such

QUARTZLINE® HALOGEN LAMP PERFORMANCE (CONTINUED)

deterioration may form local hot spots which rapidly worsen and may result in arcing and irreparable damage to both lamp and holder. Should signs of this be evident on removal of a failed lamp, it is important

that a good contact is restored by replacing the lampholder before the next lamp is fitted. Otherwise the new lamp will rapidly fail in a similar manner.

Turn On Time of Studio Lamps

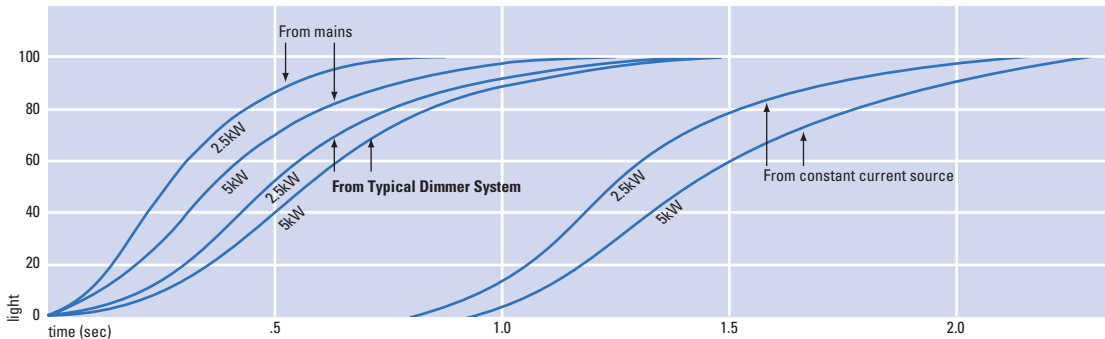




Fig. 50



Fig. 51



Fig. 75

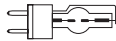


Fig. 76

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Volts	Initial Design Lumens	Design Color Temp (K)	Color CRI Index	CIE Color x y	Arc Length (mm)	Rated Life (hrs)	LCL (mm)	MOL (mm)	Burn Position	Fig. No.
Table 30: Discharge-CSR/CSD (Daylight) Metal Halide, Single-Ended Cold Start																	
250	T7	CSD250/2/SE	14, 63	27817	10	GY9.5	94	18000	9000	60+	.287 .296	5.5	3000	55	108	Any	50
575	T9	CSR575/2/T/SE	14, 63	49492	10	GX9.5	97	42000	7200	65+	.301 .302	7	1000	65	125	Any	50
		CSR575/2/SE	14, 63	15378	10	GX9.5	97	46000	7200	65+	.302 .320	7	1000	65	125	Any	50
700	T9	CSR700/2/SE	14, 63	49491	10	G22	70	55000	7200	70+	.312 .325	7.5	1000	75	155	Any	51
1200	T12	CSR1200/2/SE	14, 63	49490	6	G22	100	110000	7200	75+	.305 .315	10	800	85	175	Any	51
Table 31: Discharge-CSR (Daylight) Metal Halide, Single-Ended Short Arc																	
700	G7	CSR700/SA	14, 63	15380	10	GY9.5	70	58000	5600	70+	.330 .342	4.3	500	39	85	Any	75
		CSR700/SA/72	14, 63	45234	10	GY9.5	70	58000	7200	70+	.330 .342	4.3	500	39	85	Any	75
1200	G9	CSR1200/SA	14, 18, 63	21849	6	GY22	100	96000	5800	75+	.326 .330	7.5	750	59	135	Any	76
1800	G9	CSR2000/SA	14, 18, 63	21801	6	GY22	100	155000	6000	75+	.323 .329	7.5	750	59	135	Any	76
Table 32: Discharge-CSR (Daylight) Metal Halide, Single-Ended Hot Restrike																	
125	T5	CSR125/SE/HR	14, 63	48461	10	GZX9.5	80	9400	5600	90+	.323 .328	4	200	39	75	Any	50
200	T6	CSR200/SE/HR	14, 63	48462	10	GZY9.5	70	15000	5600	90+	.323 .328	5	200	39	80	Any	50
400	T7	CSR400/SE/HR/75	14, 63	45238	10	GZZ9.5	70	28000	7500	70+	.323 .320	5	1500	60	110	Any	50
		CSR400/SE/HR	14, 18, 63	21853	10	GZZ9.5	70	32000	6000	85+	.323 .320	6.5	750	60	110	Any	50

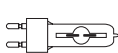


Fig. 51



Fig. 52

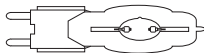


Fig. 53

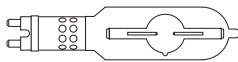


Fig. 54



Fig. 55



Fig. 56



Fig. 57



Fig. 58



Fig. 59

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Volts	Initial Design Lumens	Design Color Temp (K)	Color CRI Index	CIE Color x y	Arc Length (mm)	Rated Life (hrs)	LCL (mm)	MOL (mm)	Burn Position	Fig. No.
Table 32: Discharge-CSR (Daylight) Metal Halide, Single-Ended Hot Restrike (continued)																	
575	T9.5	CSR575/SE/HR	14, 63	48463	10	G22	95	48000	6000	90+	.323 .328	7	750	70	145	Any	51
1200	T13	CSR1200/SE/HR	14, 63	48464	6	G38	100	110000	6000	90+	.323 .328	10	750	107	200	Any	52
2500	T19.5	CSR2500/SE/HR	14, 63	48465	6	G38	115	220000	6000	90+	.323 .328	14	500	127	240	Any	53
4000	T24	CSR4000/SE/HR	14, 63	48466	6	G38	200	380000	6000	90+	.323 .328	24	500	142	260	Any	53
6000	T26.5	CSR6000/SE/HR	14, 63	48467	6	G38	130	540000	6000	90+	.323 .328	26	300	210	360	Any	54
12000	T32	CSR12000/SE/HR	14, 63	48468	4	G38	160	1100000	6000	90+	.323 .328	28	250	255	450	Any	54
18000	T32	CSR18000/SE/HR	14, 63	22496	1	G51	225	1650000	6000	90+	.325 .327	35	250	260	460	Any	

Table 33: Discharge-CSR (Daylight) Metal Halide, Double-Ended Hot Restrike

200	T4.5	CSR200/DE	14, 63	48450	10	X515	80	16000	6000	90+	.323 .325	8	300		75	H15	55
400	T6.5	CSR400/S/DE/70	14, 63	22478	10	SFc 10-4 SI/M4	49	26000	7000	65+	.305 .323	3	750		138	Any	56
		CSR400/S/DE/90	14, 63	45232	10	SFc 10-4 SI/M4	49	26000	9000	65+	.305 .323	3	750		138	Any	56
575	T6.5	CSR575/DE	14, 63	48451	10	SFc 10-4 AI/M4	95	49000	6000	90+	.323 .325	7	750		138	Any	56
		CSR575/S/DE/70	14, 63	70979	10	SFc 10-4 SI/M4	95	40000	7000	75+	.307 .309	7	750		138	Any	56
		CSR575/SS/DE/75	14, 63	45231	10	SFc 10-4 SI/M4	100	44000	7500	70+	.297 .312	5	500		92	Any	56

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Volts	Initial Design Lumens	Design Color Temp (K)	Color CRI Index	CIE Color x y	Arc Length (mm)	Rated Life (hrs)	LCL (mm)	MOL (mm)	Burn Position	Fig. No.
700	T6.5	CSR700/S/DE/60	14, 63	22493	10	SFc 10-4 SI/M4	70	59000	6000	75+	.322 .332	4	750		138	Any	56
		CSR700/S/DE/75	14, 63	41357	10	SFc 10-4 SI/M4	70	59000	7500	75+	.322 .332	4	750		138	Any	56
1200	T6.5	CSR1200/S/DE/60	14, 63	22494	10	SFc 10-4 SI/M4	100	110000	6000	90+	.323 .325	7	500		138	Any	56
		CSR1200/S/DE/72	14, 63	41361	10	SFc 10-4 SI/M4	100	110000	7200	75+	.323 .328	7	750		138	Any	56
	T8.5	CSR1200/DE	14, 63	48453	6	SFc 15.5-6 SI/M6	100	110000	6000	85+	.323 .325	10	750		220	H15	56
2500	T9.5	CSR2500/DE	14, 63	48454	6	Sfa21-12	115	240000	6000	90+	.323 .325	14	500		355	Any	59
4000	T12	CSR4000/DE	14, 63	48455	6	Sfa21-12	200	410000	6000	90+	.323 .325	34	500		405	H15	59
6000	T16	CSR6000/DE	14, 63	48456	6	25x51 Cyl 165mm	125	570000	6000	90+	.323 .325	22	300		450	H15	57
12000	T22.5	CSR12000/DE	14, 63	48457	4	30x70 Cyl 165mm	160	1100000	6000	90+	.323 .325	32	300		470	H15	57
18000	T28	CSR18000/DE	14, 63	48459	4	30x70 Cyl 165mm	225	1650000	6000	90+	.323 .325	45	300		500	H15	58
		CSR18000/S/DE	14, 63	48460	4	30x70 Cyl 165mm	225	1650000	6000	90+	.323 .325	45	300		470	H15	58

Table 34*: CSR (Daylight) Metal Halide, Single-Ended Hot Restrike UV-Control

575	T9.5	CSR575/SE/HR/UV-C	14, 63	40460	10	G22	95	49000	5600	80+	.330 .325	7	750	70	145	Any	51
800	T9.5	CSR800/SE/HR/UV-C	14, 63	22495	10	G22	95	64000	5600	90+	.325 .327	7	1000	70	145	Any	51
1200	T13	CSR1200/SE/HR/UV-C	14, 63	27764	6	G38	100	110000	5600	90+	.333 .333	10	750	107	200	Any	52
2500	T19.5	CSR2500/SE/HR/UV-C	14, 63	40482	6	G38	115	220000	5600	90+	.330 .325	14	500	127	240	Any	53
4000	T24	CSR4000/SE/HR/UV-C	14, 63	27765	6	G38	200	380000	5600	90+	.330 .325	24	500	142	260	Any	53
6000	T26.5	CSR6000/SE/HR/UV-C	14, 63	40492	6	G38	130	540000	5600	90+	.333 .333	26	300	210	360	Any	54

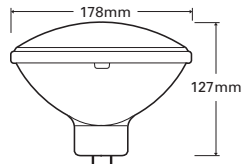


Fig. 47

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Ballast Type ANSI	Approx. CP ⁶	Design Color Temp (K)	Color CRI Index	Beam Descr.	Design Life (hrs)	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Burn Position	Fig. No.
Table 38: Discharge-ConstantColor[®] CMH[®] Ceramic Metal Halide, PAR56 Reflector																
150	PAR56	CMH150/PAR56/830/Gx16d/SP	14, 18, 63	22693	6	Gx16d	M81,102,142	80000	3000	80+	SP	5000	68 X 63	14 X 19	Any	47
		CMH150/PAR56/830/Gx16d/MFL	14, 18, 63	22694	6	Gx16d	M81,102,142	60000	3000	80+	MFL	5000	74 X 65	19 X 22	Any	47
		CMH150/PAR56/830/Gx16d/WFL	14, 18, 63	22696	6	Gx16d	M81,102,142	50000	3000	80+	WFL	5000	81 X 67	29 X 23	Any	47
		CMH150/PAR56/942/Gx16d/SP	14, 18, 63	22697	6	Gx16d	M81,102,142	80000	4200	90+	SP	5000	68 X 63	14 X 19	Any	47
		CMH150/PAR56/942/Gx16d/MFL	14, 18, 63	22700	6	Gx16d	M81,102,142	60000	4200	90+	MFL	5000	74 X 65	19 X 22	Any	47
		CMH150/PAR56/942/Gx16d/WFL	14, 18, 63	22702	6	Gx16d	M81,102,142	50000	4200	90+	WFL	5000	81 X 67	29 X 23	Any	47

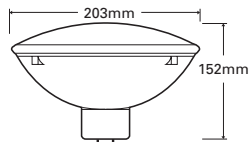


Fig. 49

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Ballast Type ANSI	Approx. CP ⁶	Design Color Temp (K)	Color CRI Index	Beam Descr.	Rated Life (hrs)	Beam Spread ⁵ (degrees)	Beam Angle ³ (degrees)	Burn Position	Fig. No.
Table 39: Discharge-ConstantColor[®] CMH[®] Ceramic Metal Halide, PAR64 Reflector																
150	PAR64	CMH150/PAR64/830/Gx16d/SP	14, 18, 63	16958	6	Gx16d	M81,102,142	154000	3000	80+	SP	8000	18 X 18	9 X 9	Any	49
		CMH150/PAR64/830/Gx16d/MFL	14, 18, 63	16959	6	Gx16d	M81,102,142	47000	3000	80+	MFL	8000	34 X 26	22 X 14	Any	49
		CMH150/PAR64/830/Gx16d/WFL	14, 18, 63	16960	6	Gx16d	M81,102,142	16000	3000	80+	WFL	8000	62 X 36	46 X 23	Any	49
		CMH150/PAR64/942/Gx16d/SP	14, 18, 63	16961	6	Gx16d	M81,102,142	154000	4200	90+	SP	8000	18 X 18	9 X 9	Any	49
		CMH150/PAR64/942/Gx16d/MFL	14, 18, 63	16962	6	Gx16d	M81,102,142	47000	4200	90+	MFL	8000	34 X 26	22 X 14	Any	49
		CMH150/PAR64/942/Gx16d/WFL	14, 18, 63	16963	6	Gx16d	M81,102,142	16000	4200	90+	WFL	8000	62 X 36	46 X 23	Any	49

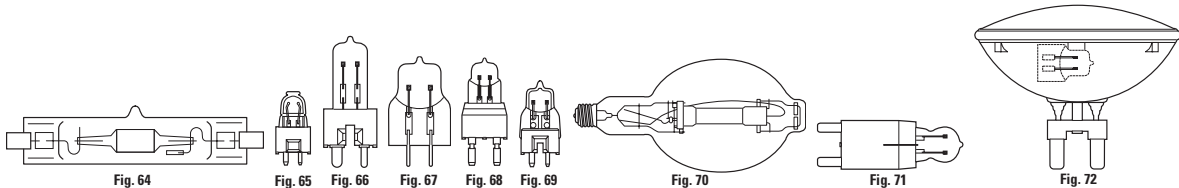


Fig. 64

Fig. 65

Fig. 66

Fig. 67

Fig. 68

Fig. 69

Fig. 70

Fig. 71

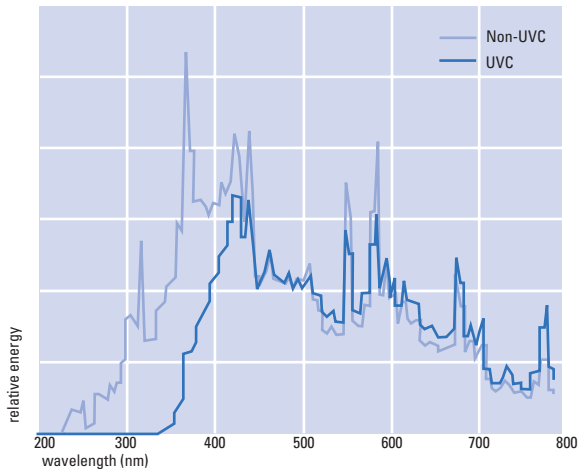
Fig. 72

Watts	Bulb OD	GE Description	Footnotes/Safety Notices	Product Code	Std. Pack Qty.	Base	Volts or ANSI ballast	Initial Design Lumens	Design Color Temp (K)	Color CRI Index	Arc Length (mm)	Rated Life (hrs)	LCL (mm)	MOL (mm)	Burn Position	Fig. No.
Table 40: Discharge-CSI, CID, MVR/SPL, Double-Ended																
1500	T-7	SPL1500/H/652	14, 63	16920	1	Rx7s	Special	120000	5200	80		6000	127	257	H4	64
Table 41: Discharge-CSI, CID, MVR/SPL, Single-Ended																
140	T-7	CSS150/CAP/50	14, 63	34813	10	GY9.5	85	10000	5000	80	6	1000	30	48	BDTH	65
200	T-5	99-0211CID	14, 63	30560	1	Special	70	14000	5500	85	5.5	150	36	57	BDTH	66
400	T-6	99-0201CSI	14, 63	30555	1	Special	100	32000	4000	80	9	500	25	55	BDTH	67
575	T-7	99-0415CID	14, 63	30563	1	G22	95	40250	5500	85	9	500	52	94	BDTH	68
		CSS575/855/GY9.5	14, 63	34822	10	GY9.5	95	40250	5500	85	9	500	52	94	BDTH	69
1000	T-10	99-0221CSI	14, 63	30558	1	G22	77	90000	4000	80	14	500	64	115	BDTH	68
		99-0222CID	14, 63	30561	1	G22	77	70000	5500	85	15	500	64	115	BDTH	68

Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Volts or ANSI ballast	Initial Design Lumens	Design Color Temp (K)	Color CRI Index	Arc Length (mm)	Rated Life (hrs)	LCL (mm)	MOL (mm)	Burn Position	Fig. No.
Table 41: Discharge-CSI, CID, MVR/SPL, Single-Ended (continued)																
1500	BT56	MVR1500/U/SPORTS	14, 63	47326	6	E39	M48	178000	4000	65		3000	241	390	Any	70
		MVR1500/HBU	14, 63	37405	6	E39	M48	165000	3900	65		3000	241	390	HBU	70
1650	BT56	MVR1650/HOR	14, 63	25532	6	E39p	M112	177000	3200	65		3000	241	390	H15	70
2000	T-9	MQI/2000/T9/40	14, 63	12275	10	Special	M134	200000	4000	65		4000	109	254	H15	
2500	G-13	99-0431CID/HR	14, 63	30567	1	G38	100	200000	5500	85	18	350	127	175	BDTH	71

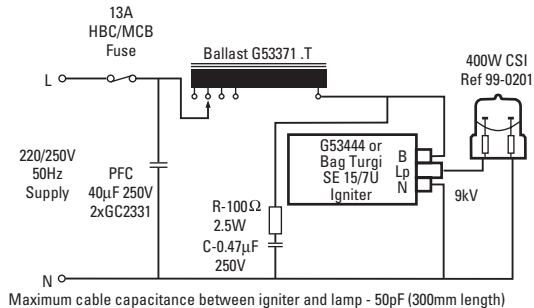
Watts	Bulb OD	GE Description	Footnotes/ Safety Notices	Product Code	Std. Pack Qty.	Base	Volts or ANSI ballast	Approx CP ⁶	Design Color Temp (K)	Color CRI Index	Arc Length (mm)	Rated Life (hrs)	Beam Spread ⁵ (degree)	MOL (mm)	Burn Position	Fig. No.
Table 42: Discharge-CSI, CID, MVR/SPL, PAR64 Reflector																
1000	PAR64	SPL1000/PAR64/840	14, 19, 63	29333	1	G38	77	1350000	4000	80		3500		175	Any	72
		SPL1000/PAR64/HR	14, 19, 63	29336	1	G38	77	1350000	4000	80		3500		175	Any	72
		99-1225CID	14, 23, 63	30360	1	G38	77	850000	5500	85	15	1500	20	175	Any	72
		99-1425CID/HR	14, 23, 63	30371	1	G38	77	850000	5500	85	15	1000	20	175	Any	72
1200	PAR64	99-1435CID/HR	14, 24, 63	30372	1	G38	100	820000	5500	85	18	1000	18	175	Any	72

UV-Control Discharge Spectral Distribution

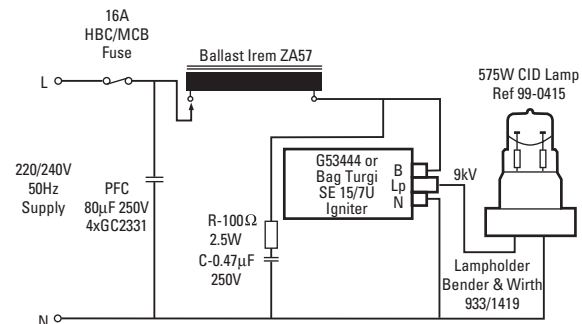


DISCHARGE LAMP WIRING DIAGRAMS

400 Watt CSI Lamp Circuit Diagram

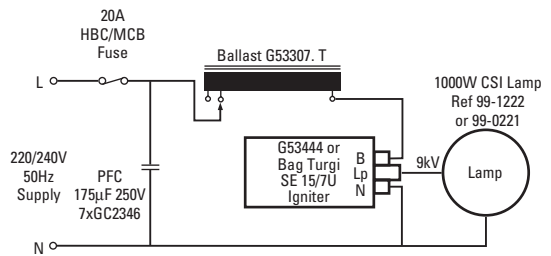


575 Watt CID Lamp Circuit Diagram



Maximum cable capacitance between igniter and lamp - 50pF (300mm length)

1000 Watt CSI Lamp Circuit Diagram



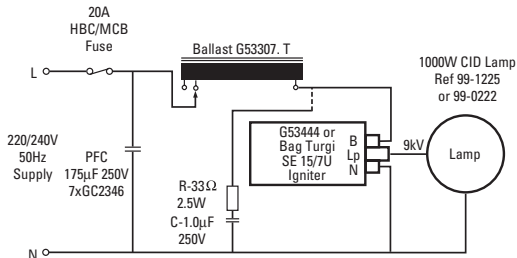
Lampholder for 99-1222 - Bender & Wirth 938/223 and for 99-0221 - Bender & Wirth 933/1419

Maximum cable capacitance between igniter and lamp - 50pF (300mm length)

Replace G53445 (or Bag Turgi SE600/D) igniter sparkgap element when replacing a failed lamp

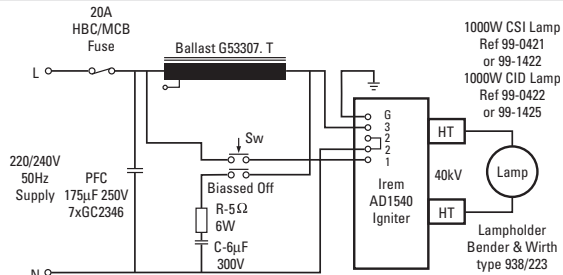
DISCHARGE LAMP WIRING DIAGRAMS (CONTINUED)

1000 Watt CID Lamp Circuit Diagram



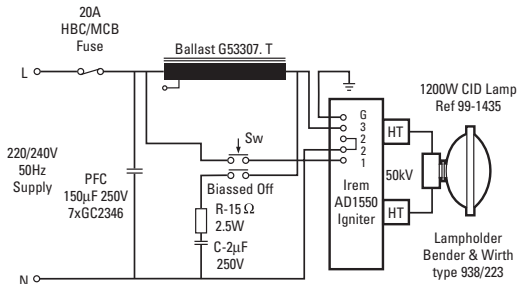
Lampholder for 99-1222 - Bender & Wirth 938/223 and for 99-0222- Bender & Wirth 933/1419
 R/C components necessary ONLY when used on a 220V rate supply
 Maximum cable capacitance between igniter and lamp - 50pF (300mm length)
 Replace G53445 (or Bag Turgi SE600/D) igniter sparkgap element when replacing a failed lamp

1000 Watt CSI/CID Hot-Restart Lamp Circuit Diagram



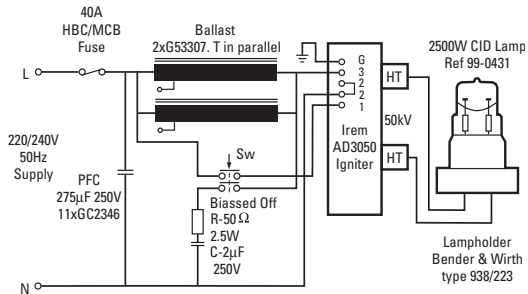
Sw - Normally open contacts - Manual switch or 2 second ON timer
 Maximum cable capacitance between igniter and lamp - 30pF (200mm length)

1200 Watt CID Hot-Restart Lamp Circuit Diagram



Sw - Normally open contacts - Manual switch or 2 second ON timer
 Maximum cable capacitance between igniter and lamp - 30pF (200mm length)

2500 Watt CID Hot-Restart Lamp Circuit Diagram



Sw - Normally open contacts - Manual switch or 2 second ON timer
 Maximum cable capacitance between igniter and lamp - 30pF (200mm length)



Fig. 73

Watts	Bulb OD	GE Description	Footnote/ Safety Notices	Product Code	Std. Pack Qty.	Base	Initial Lumens	Mean Lumens	Rated Life (hrs)	MOL (mm)	Fig. No.
Table 43: Fluorescent Cinema Lighting, T8 High Output											
55	T8	F48T8/CINEMA32	8, 171	81205	24	G-13 Med BiPin	2750	2200	2000	1219	73
		F48T8/CINEMA55	8, 171	81206	24	G-13 Med BiPin	2750	2200	2000	1219	73
		F48T8/CINEMA32/CVG	8, 171	81207	24	G-13 Med BiPin	2750	2200	2000	1219	73
		F48T8/CINEMA55/CVG	8, 171	81208	24	G-13 Med BiPin	2750	2200	2000	1219	73
Table 44: Fluorescent Cinema Lighting, Standard Cinema											
35	T12	F20T12/CINEMA32/HO	8, 9, 171	15712	24	G-13 Med BiPin	1130	800	2000	610	73
		F20T12/CINEMA55/HO	8, 10, 171	15713	24	G-13 Med BiPin	1100	770	2000	610	73
60	T12	F40T12/CINEMA32/HO	8, 9, 171	15716	30	G-13 Med BiPin	2900	2030	2000	1219	73
		F40T12/CINEMA55/HO	8, 10, 171	15717	30	G-13 Med BiPin	2820	1974	2000	1219	73
85	T12	F72T12/CINEMA32/HO	8, 9, 171	15718	15	G-13 Med BiPin	4150	2905	2000	1829	73
		F72T12/CINEMA55/HO	8, 10, 171	15719	15	G-13 Med BiPin	4050	2835	2000	1829	73
110	T12	F96T12/CINEMA32/HO	8, 9, 171	15720	15	G-13 Med BiPin	5800	4060	2000	2438	73
		F96T12/CINEMA55/HO	8, 10, 171	15721	15	G-13 Med BiPin	5650	3955	2000	2438	73



Fig. 73

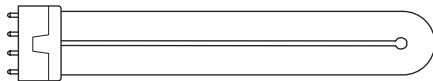


Fig. 74

Watts	Bulb OD	GE Description	Footnote/ Safety Notices	Product Code	Std. Pack Qty.	Base	Initial Lumens	Mean Lumens	Rated Life (hrs)	MOL (mm)	Fig. No.
Table 45: Fluorescent Cinema Lighting, CovRguard® Cinema											
35	T12	F20T12/CINEMA32/HO/CVG	8, 9, 171	15775	24	G-13 Med BiPin	1130	800	2000	610	73
		F20T12/CINEMA55/HO/CVG	8, 10, 171	15776	24	G-13 Med BiPin	1100	770	2000	610	73
60	T12	F40T12/CINEMA32/HO/CVG	8, 9, 171	15782	30	G-13 Med BiPin	2900	2030	2000	1219	73
		F40T12/CINEMA55/HO/CVG	8, 10, 171	15783	30	G-13 Med BiPin	2820	1974	2000	1219	73
85	T12	F72T12/CINEMA32/HO/CVG	8, 9, 171	15785	15	G-13 Med BiPin	4150	2905	2000	1829	73
		F72T12/CINEMA55/HO/CVG	8, 10, 171	15786	15	G-13 Med BiPin	4050	2835	2000	1829	73
110	T12	F96T12/CINEMA32/HO/CVG	8, 9, 171	15794	15	G-13 Med BiPin	5800	4060	2000	2438	73
		F96T12/CINEMA55/HO/CVG	8, 10, 171	15798	15	G-13 Med BiPin	5650	3955	2000	2438	73

Table 46: Fluorescent Cinema Lighting, BiAx®											
55	T5	F55BX/STUDIOBIAX32	11	41869	10	2G11-4 PIN	4100	3485	8000	536	74
		F55BX/STUDIOBIAX56	13	41873	10	2G11-4 PIN	4100	3485	8000	536	74
		F55BX/CINPLUS/32	11	41903	10	2G11-4 PIN	2400	2040	2000	536	74
		F55BX/CINPLUS/55	13	41911	10	2G11-4 PIN	2400	2040	2000	536	74

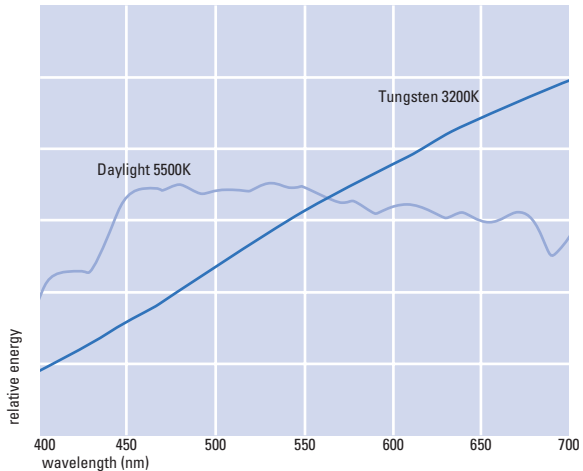
GE CINEMA FLUORESCENT LAMPS

GE Cinema Lamps Provide Predictable Color for Standard Film Processing

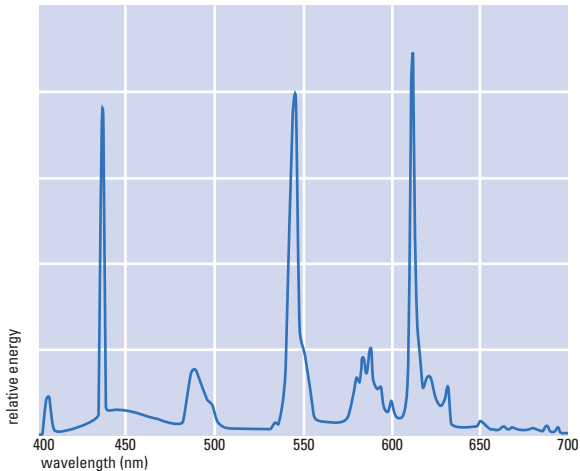
In the entertainment industry the use of color film has always been based on incandescent or Tungsten lighting. These standards were established before fluorescent lighting was invented in 1939. With the introduction of fluorescent lighting it was soon discovered that cool white fluorescent and triphosphor lamps did not work well with film. Extensive filtering was required resulting in loss of light and added cost and labor.

Now Cinema lamps require phosphore blends which better match Daylighting and Tungsten Spectral Power Distribution (SPD) in order to provide predictable color for standard film processing — without the need for expensive filtering on the set.

SPD for Tungsten 3200K and Daylight 5500K



SP41 Spectral Power Distribution



Standard SP41 Spectral Power Distribution

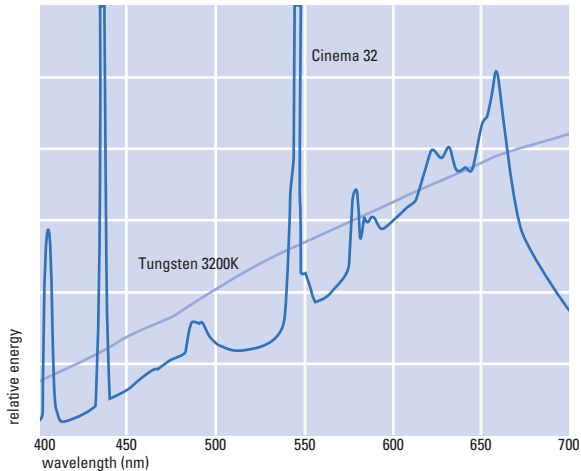
Typical modern triphosphor fluorescent lamp spectra optimized for eye response, especially green for lumens.

Matching Phosphor Blends to Film Light Reference Sources

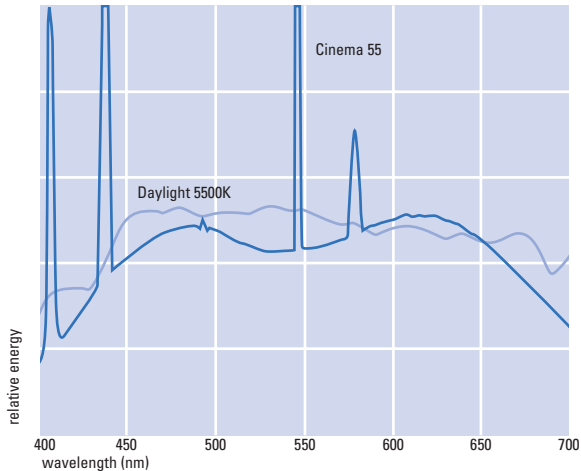
GE Cinema design uses full spectrum phosphor blends for Cinematography lamps. Color is matched for Tungsten 3200K and Daylight 5500K spectra. Final matching is done using Minolta Ilf meter as a gage for determining filtering needs which become the effective color specification limits.

GE CINEMA FLUORESCENT LAMPS (CONTINUED)

Cinema 32 vs Tungsten 3200K



Cinema 55 vs. 5500K Daylight



A Full Range of Operating Currents and Dimming Conditions Can Be Used Without Requiring Added Filtration

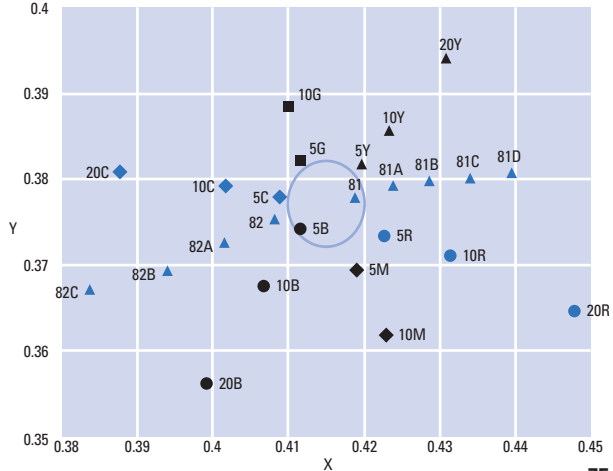
GE Cinema lamps are designed to minimize the need to add filters for color correction.

X, Y Chromaticity Plots for Daylight 5500K (Chart 2) and Tungsten 3200K (Chart 1) Light Sources

Kodak Wratten filter values, and corresponding color shift are also indicated. Color specification limits are best represented by circles rather than MacAdam Ellipses for the Cinema lamp products due to the differences between eye and film color sensitivity.

Chart 1: Tungsten 3200K Color Shift with Wratten Filters

Color Specification for Cinema 32



GE CINEMA FLUORESCENT LAMPS (CONTINUED)

Chart 2: Daylight Color Shift with Wratten Filters

Color Specification for Cinema 55

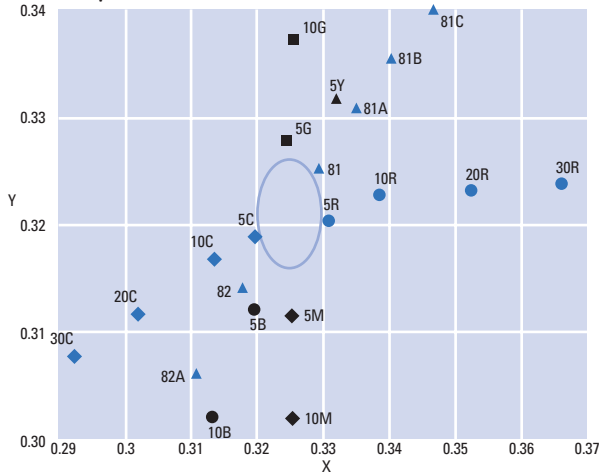
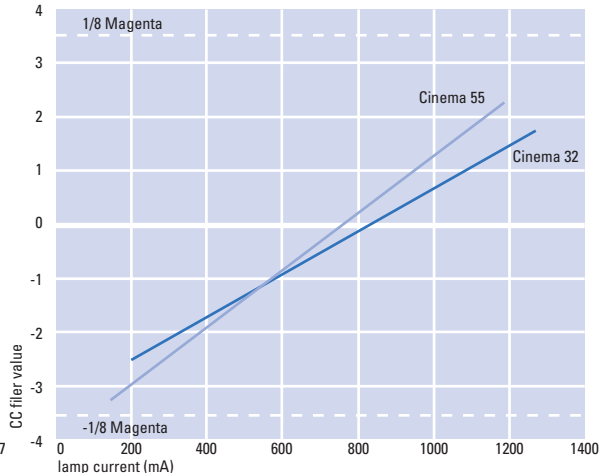


Chart 3: Color vs. Lamp Current for F40T12 Cinema Lamps



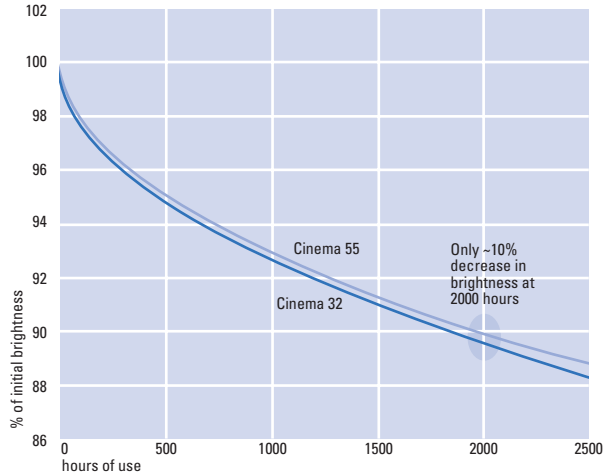
Color vs. Lamp Current for F40T12 Cinema Lamps (Chart 3)

- Cinema lamp color shift with lamp operating current.
- All readings made using Minolta IIIf color meter.
- Lamp stabilized for 20 minutes at each current level before measuring color.

Lamp Brightness Decreases with Lamp Age (Chart 4)

- Cinema lamps maintain 90% of initial brightness up to 2000 hours of use.
- Color drift during this time period is minimal for both colors.
- Cinema lamps exhibit good brightness stability and minimal color change with use.

Chart 4: Lamp Brightness Decreases
with Lamp Age



GE CINEMA FLUORESCENT LAMPS (CONTINUED)

Usage Guidelines

Warm Up Time

Allow at least ½ hour stabilization time before checking color of GE Cinema lamps. This applies to new and used lamps. Color will drift (mostly the mired shift, or LB value) during the warm up period.

Breakage During Set-up and Transport

Specify covRguard® safety coated lamps when lamps will be moved and transported during use. The covRguard® design minimizes breakage and contains the lamp components if breakage occurs – minimizing set clean-up issues.

Ballast Compatibility

Assure that the correct type of ballast is used with Cinema lamps. High current ballast such as provided with Kino Flo fixtures require HO lamp types. If brightness control through dimming is desired, be sure to specify ballasts designed for dimmability.

Fixture Compatibility

GE recommends the F40/HO and F20/HO versions to be used in high current cinematography fixtures such as those manufactured by Kino Flo. The standard F40 and F20 Cinema lamps are recommended for ANSI approved general lighting fixtures.

FILTERS

Selected Manufacturers of Filters for Color Correction of Light Sources

Selected filter products (see websites for additional information:
www.rosco.com, www.leefilters.com, www.gamonline.com

Kelvin Temperature Compensation

AMBER TO REDUCE KELVIN

Rosco				Lee				Gam	
Balance 5500K	Product No.	Mired Shift	Tran (%)	Balance 6500K	Product No.	Mired Shift	Tran (%)	Product No.	
To 3200K	3401	+131	58	To 3200K	204 (CTO)	+159	55.4	1543	
2900K	3407(CTO)	+167	47	3600K	285 (3/4CTO)	+124	61.3	1546	
3200K	3411 (3/4CTO)	+131	58	3800K	205 (1/2CTO)	+109	70.8	1549	
3800K	3408 (1/2CTO)	+81	73	4600K	206 (1/4CTO)	+64	79.1	1552	
4500K	3409 (1/4CTO)	+42	81	5550K	223 (1/8CTO)	+26	85.2	1555	
4900K	3410 (1/8CTO)	+20	92						
2000K	3420 (2X CTO)	+320	23					1540	

FILTERS (CONTINUED)

Kelvin Temperature Compensation (continued)

STRAW TO REDUCE KELVIN

Rosco				Lee				Gam
Balance 5500K	Product No.	Mired Shift	Tran (%)	Balance 6500K	Product No.	Mired Shift	Tran (%)	Product No.
To 2900K	3441 (full CTS)	+131	47	To 3200K	441 (full CTS)	+160	57.3	
3800K	3408 (1/2 CTS)	+81	73	4300K	442 (1/2 CTS)	+81	71.2	
4500K	3409 (1/4 CTS)	+42	81	5100K	443 (1/4 CTS)	+42	79.8	
4900K	3410 (1/8 CTS)	+20	92	5700K	444 (1/8 CTS)	+20	83.1	

Filters will reduce the color temperature of any source. Both 5500K and 6500K are used for reference.

BLUE TO INCREASE KELVIN**Rosco****Lee****Gam**

	Balance 3200K	Product No.	Mired Shift	Tran (%)		Balance 3200K	Product No.	Mired Shift	Tran (%)		Product No.
To	5500K	3202 (full CTB)	-131	36	To	5700K	201 (full CTB)	-137	34		1523
	4700K	3203 (3/4 CTB)	-100	41		5000K	281 (3/4 CTB)	-112	45.5		1526
	4100K	3204 (1/2 CTB)	-68	52		4300K	202 (1/2 CTB)	-78	54.9		1529
	3800K	3206 (1/3 CTB)	-49	64							
	3500K	3208 (1/4 CTB)	-30	74		3600K	203 (1/4 CTB)	-35	69.2		1532
	3300K	3216 (1/8 CTB)	-12	81		3400K	218 (1/8 CTB)	-18	81.3		1535
	10000K	3220 (2X CTB)	-260	10	app	26000K	200 (2X CTB)	-274	16.2		1520

Color Compensation (CC)**INCREASE GREEN/REDUCE MAGENTA****Rosco****Lee****Gam**

	Product No.	CC Value	Tran %		Product No.	CC Value	Tran %		Product No.
Plus Green	3304	30G	76		244	30G	74.2		1585
1/2 Plus Green	3315	15G	90		245	15G	81.7		1587
1/4 Plus Green	3316	7.5G	92		246	7.5G	84.6		1588
1/8 Plus Green	3317	3.5G	93		278		87.7		1589

FILTERS (CONTINUED)**Color Compensation (CC) (continued)****REDUCE GREEN/INCREASE MAGENTA**

Rosco				Lee			Gam
	Product No.	CC Value	Tran %	Product No.	CC Value	Tran %	Product No.
Minus Green	3308	30M	55	247	30M	57.8	1580
1/2 Minus Green	3313	15M	71	248	15M	72	1582
1/4 Minus Green	3314	7.5M	81	249	7.5M	82.4	1583
1/8 Minus Green	3318	3.5M	88	279		86.5	1584

FILTER TUNGSTEN TO MATCH FLUORESCENT (BY INDUSTRY NAME)*

Industry Name	Approx. K	Rosco	Lee
Cool White/Daylight	5700	60C (#4360)	241 (with FL-B or FL-D)
White	4300		242 (with FL-B or FL-D)
Warm White	3600	30C+15C (#4330+4315)	243 (with FL-B or FL-D)

FILTER FLUORESCENT/DISCHARGE TO TUNGSTEN OR DAYLIGHT FILM*

Source	Rosco		Lee
	To Tungsten	To Daylight	To Tungsten
Cool White	60R (4660)	30M (4730)	
Warm White	30R+15R (4360+4615)	30B (4230)	
Multi-Vapor	60R+15Y (4660+4515)	15R+15M (4615+4715)	
HMI		3107	236
CID			237
CSI			238
White Flame Arc	3106		232

* Discharge lamps are diverse in performance, so the above is a very limited list of examples. Contact the filter manufacturer for additional information and recommendations.

TEMPERATURE RATING OF CONDUCTOR

Allowable Ampacities of Insulated Conductors Rated 0 – 2000 Volts, 60°C – 90°C (140°F – 194°F),
Not More Than Three Current-Carrying Conductors in Raceway, Cable, or Earth (Directly Buried),
Based on Ambient Temperature of 30° C (86°F).

Copper

60°C (140°F) Types: TW, UF

75°C (167°F) Types: RHW, THHW, THW, THWN, USE, XHHW, ZW

90°C (194°F) Types: FEP, FEPB, MI, RHH, RHW-2, SA, SIS, TBS, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2

Size				Size				Size			
AWG or	60°C	75°C	90°C	AWG or	60°C	75°C	90°C	AWG or	60°C	75°C	90°C
kcmil	(140°F)	(167°F)	(194°F)	kcmil	(140°F)	(167°F)	(194°F)	kcmil	(140°F)	(167°F)	(194°F)
18	–	–	14	1/0	125	150	170	750	400	475	535
16	–	–	18	2/0	145	175	195	800	410	490	555
14	20	20	25	3/0	165	200	225	900	435	520	585
12	25	25	30	4/0	195	230	260	1000	455	545	615
10	30	35	40	250	215	255	290	1250	495	590	665
8	40	50	55	300	240	285	320	1500	520	625	705
6	55	65	75	350	260	310	350	1750	545	650	735
4	70	85	95	400	280	335	380	2000	560	665	750
3	85	100	110	500	320	380	430				
2	95	115	130	600	355	420	475				
1	110	130	150	700	385	460	520				

Aluminum or Copper-Clad Aluminum

60°C (140°F) Types: TW, UF

75°C (167°F) Types: RHW, THHW, THW, THWN, USE, XHHW

90°C (194°F) Types: RHH, RHW-2, SA, SIS, TBS, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2

Size				Size				Size			
AWG or	60°C	75°C	90°C	AWG or	60°C	75°C	90°C	AWG or	60°C	75°C	90°C
kcmil	(140°F)	(167°F)	(194°F)	kcmil	(140°F)	(167°F)	(194°F)	kcmil	(140°F)	(167°F)	(194°F)
12	20	20	25	3/0	130	155	175	800	330	395	450
10	25	30	35	4/0	150	180	205	900	355	425	480
8	30	40	45	250	170	205	230	1000	375	445	500
6	40	50	60	300	190	230	255	1250	405	485	545
4	55	65	75	350	210	250	280	1500	435	520	585
3	65	75	85	400	225	270	305	1750	455	545	615
2	75	90	100	500	260	310	350	2000	470	560	630
1	85	100	115	600	285	340	385				
1/0	100	120	135	700	310	375	420				
2/0	115	135	150	750	320	385	435				

Allowable Ampacities of Single-Insulated Conductors Rated 0 – 2000 Volts in Free Air, Based on Ambient Air Temperature of 30°C (86°F)

Copper

60°C (140°F) Types: TW, UF

75°C (167°F) Types: RHW, THHW, THW, THWN, USE, XHHW, ZW

90°C (194°F) Types: FEP, FEPB, MI, RHH, RHW-2, SA, SIS, TBS, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
18	—	—	18
16	—	—	24
14	25	30	35
12	30	35	40
10	40	50	55
8	60	70	80
6	80	95	105
4	105	125	140
3	120	145	165
2	140	170	190
1	165	195	220

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
1/0	195	230	260
2/0	225	265	300
3/0	260	310	350
4/0	300	360	405
250	340	405	455
300	375	445	505
350	420	505	570
400	455	545	615
500	515	620	700

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
600	575	690	780
700	630	755	855
750	655	785	885
800	680	815	920
900	730	870	985
1000	780	935	1055
1250	890	1065	1200
1500	980	1175	1325
1750	1070	1280	1445
2000	1155	1385	1560

Aluminum or Copper-Clad Aluminum

60°C (140°F) Types: TW, UF

75°C (167°F) Types: RHW, THHW, THW, THWN, USE, XHHW

90°C (194°F) Types: RHH, RHW-2, SA, SIS, TBS, THHN, THHW, THW-2, THWN-2, USE-2, XHH, XHHW, XHHW-2, ZW-2

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
12	25	30	35
10	35	40	40
8	45	55	60
6	60	75	80
4	80	100	110
3	95	115	130
2	110	135	150
1	130	155	175

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
1/0	150	180	205
2/0	175	210	235
3/0	200	240	275
4/0	235	280	315
250	265	315	355
300	290	350	395
350	330	395	445
400	355	425	480
500	405	485	545

Size	60°C	75°C	90°C
AWG or kcmil	(140°F)	(167°F)	(194°F)
600	455	540	615
700	500	595	675
750	515	620	700
800	535	645	725
900	580	700	785
1000	625	750	845
1250	710	855	960
1500	795	950	1075
1750	875	1050	1185
2000	960	1150	1335

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