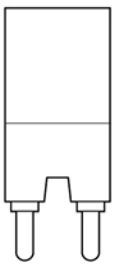
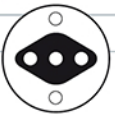
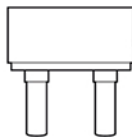
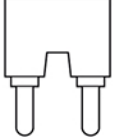
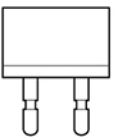
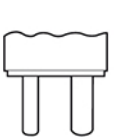
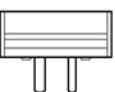


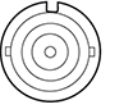
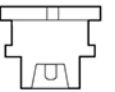
Lamp bases

Bipost/Bipin

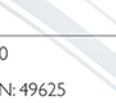
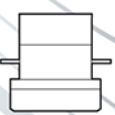
							
							
G38 IEC: 7004-76 ANSI: Mogul bipost	GY38	G22 IEC: 7004-70-1 ANSI: Medium bipost	GY22	G9.5 IEC: 7004-70-1 ANSI: Medium 2-pin	GY16 IEC: 7004-74	GX9.5 DIN: 49638 IEC: 7004-70A	GY9.5/GZ9.5 IEC: 7004-70B-2 ANSI: Two-pin ceramic

				
GX7.9	GZX9.5 IEC: 7004-70B ANSI: Two-pin ceramic	GZY9.5 IEC: 7004-70B ANSI: Two-pin ceramic	GZZ9.5 IEC: 7004-70B ANSI: Two-pin ceramic	Not standardised

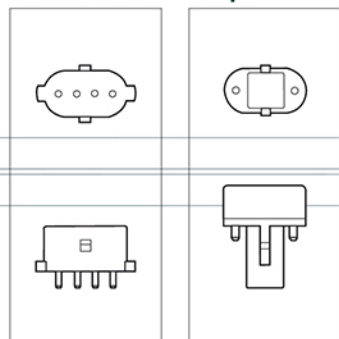
Prefocus/Bayonet

				
				
P28s DIN: 49728 IEC: 7004-42 ANSI: Medium prefocus base C 81-30-1976 sheet 1-5-1	P32d	BA15d DIN: 49720 IEC: 7004-11A ANSI: Candelabra bayonet base double contact C 81-30-1976 sheet 1-3-1	B22d/22 IEC: 7004-10	B22d3

FastFit

		
		
E27 DIN: 49620 IEC: 7004-21 Edison screw	E40 DIN: 49625 IEC: 7004-24 ANSI: Mogul screw base C 81-10-1976 sheet 1-17-1	PGJX50 PGJX28

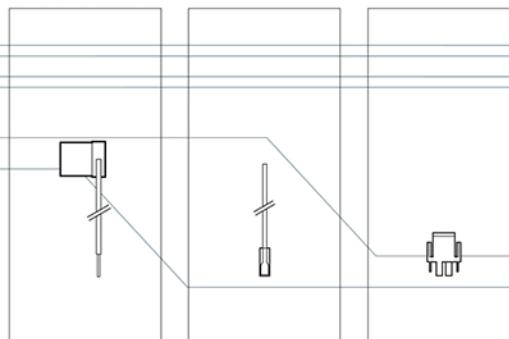
For fluorescent lamps



2G7

G23

Cable/Connector

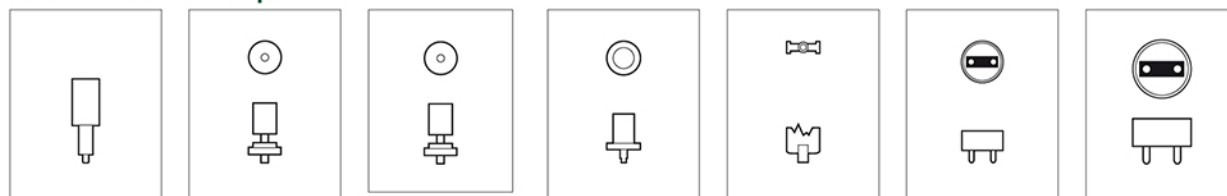


Cap 15.8/14.7 cable

Cable

AMP connector

For double-ended lamps



SFa21-12

DIN: 49759

SFc10-4

DIN: 49759

SFc11

DIN: 49759

SFc15.6-6

DIN: 49759

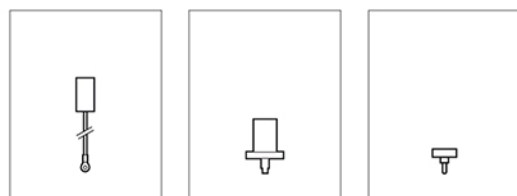
R7s, DIN:49750

IEC: 7004-92

ANSI: Recessed
single contact base

G5

G13



SFa7-5-2

S30x70

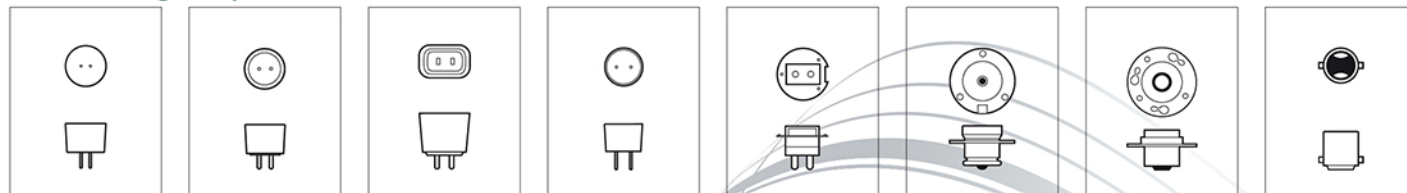
SFc18-5-6

(P) SFc

Fa4

IEC: 7004-58-1

For low-voltage lamps



GZ4

GX5.3

(Round pin)

GY5.3

GZ6.35

DIN:49754

IEC: 7004-59A

PG22-6.35

DIN: 49751

IEC: 7004-48

PX28s

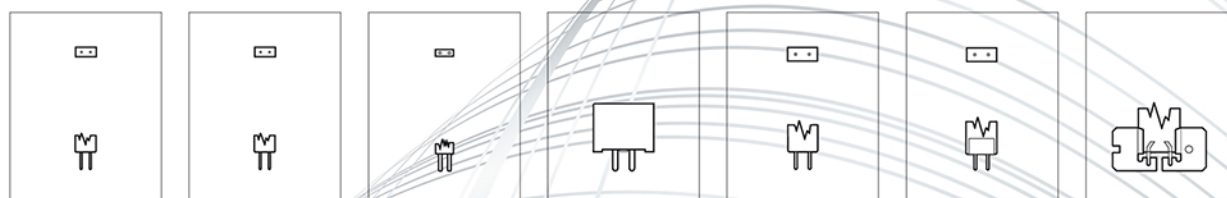
P30s

IEC:7004-44

BA15s, DIN:49720

IEC: 7004-11A

ANSI: Single contact
candelabra bayonet
base, C81-30-1976,
sheet 1-3-1



G3.9

G4

IEC: 7004-72

GU4

IEC: 7004-72

G5.3

IEC: 7004-73-2

ANSI: Miniature
2-pin

G6.35, GY6.35

GX6.35,

IEC: 7004-59

ANSI: C 8140-1972

B15d

DIN:49721

IEC: 7004-11a

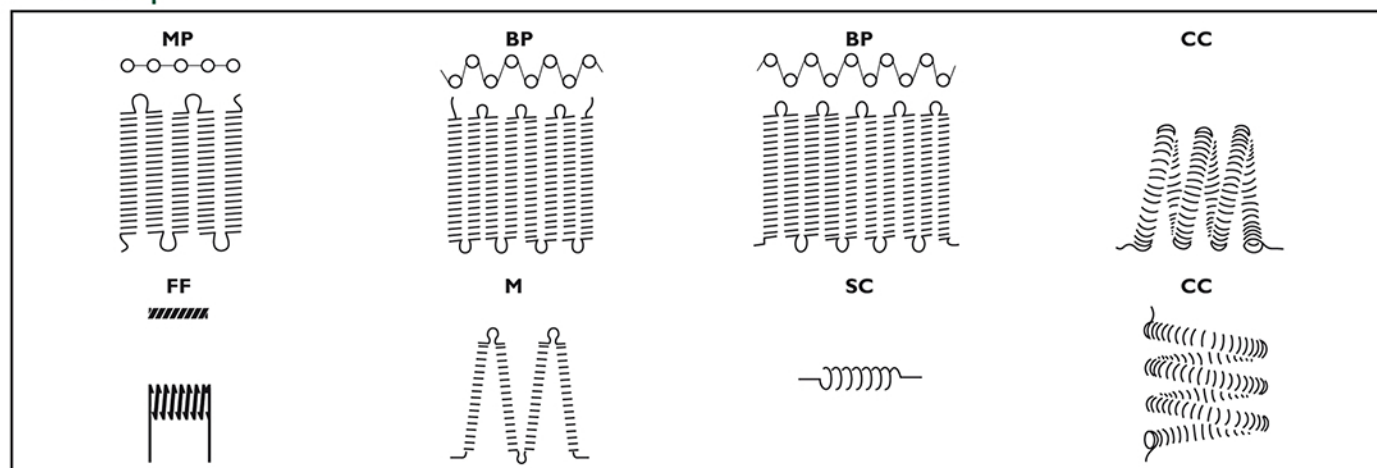
A26/14

Lamp base names - Filament shapes - Fusing, Lamp life

Lamp bases and their names

Bi-pin cap	G38	Prefocus cap	P28s	SFc15.6-6	Prefocus cap	PX28s	
	GY38	Bayonet/Prefocus cap	GY38	Recessed single contact cap	Prefocus cap	P30s	
Bi-pin cap and base	G22	Bayonet cap	P23d	and end of lamp	R7s	Bayonet cap	BA15s
Bi-pin cap	GY22	Bayonet cap	BA15d	Bi-pin cap	G5		G3.9
Bi-pin cap	G9.5	Bayonet cap	B22d3	Bi-pin cap	G13	Bi-pin lamp base	G4
Bi-pin cap	GY16	Screw cap	E27		SFA1-5-6	Bi-pin lamp base	GU4
Bi-pin cap	GX9.5	Screw cap	E40		SFc18-5-6	Bi-pin cap	G5.3
Bi-pin cap on finished lamp	GY9.5	Cap	2G7	Single-pin cap and		Bi-pin lamp base for use	
Bi-pin cap on finished lamp	GZ9.6	Bi-pin cap	G23	end of tubular lamp	Fa4	Bayonet cap	G6.35
	GX7.9		Cap 15.8/14.7 cable	Bi-pin lamp base	GZ4		B15d
	GZX9.5		Cable	Bi-pin base	GX5.3		A26/14
	GZY9.5		AMP connector	Bi-pin base	GY5.3		GZY
	GZZ9.5		SFa21-12	Bi-pin lamp base	GZ6.35	FastFit cap	PGJX50
	Special		SFc10-4	Prefocus cap	PG22		

Filament shapes



FF = Flat filament
CC = Coiled coil
M = M shape

MP = Mono Plane
BP = Bi plane
SC = Single coil

Fusing

All mains voltage filament lamps (halogen and non-halogen) must be fused to reduce the risk of shattering at end-of-life.

The table gives the appropriate value

Wattage W	Voltage V	Fuse A
500	55	16
300	100-130	4
300	220-250	2
500	100-130	6.3
500	220-250	4
650	100	10
650	115-130	6.3
650	220-250	4
750/800	115-130	10
750/800	220-230	6.3
900	220-230	6.3
1000	100	16
1000	115-130	10
1000	220-250	6.3

Wattage W	Voltage V	Fuse A
1200	100-130	16
1200	220-250	10
2000	100-130	25
2000	220-250	10
2500	100	35
2500	115-130	25
2500	220-250	16
3250	220-230	16
3250	240-250	16
5000	115-130	50
5000	220-250	25

Lamp Life

Indication of lamp life can be a confusing matter. The lamps in this catalogue (unless indicated differently) have a lamp life indicated by "Average life" or "Life 50%". This means at least 50% of the population is still working at the indicated number of hours.

In other words:

- Average lamp life 1000 hours
- Batch size 100 pieces

then:

- At reaching 1000 hours;
- at least 50 pieces are still working.

Realise that certain types in special applications have degraded so much that although they still burn they are unfit to fulfill their given task!

Temperature limits of halogen lamps - Burning positions

Temperature limits of halogen lamps

Although halogen lamps, with their quartz-glass envelopes, can withstand very high temperatures, there are certain limits within which the lamps should be held.

	Average life			
	< 15h	15 - 300 h	300 - 800 h	> 800 h
Pinch temperature (lamps without P3) in °C	max 450	max 400	max 350	max 350
Pinch temperature (lamps with P3) in °C	max 500	max 500	max 500	max 480
Bulb temperature in °C	250 - 900	250 - 900	250 - 900	250 - 900

Outside these limits the halogen will not function properly, leading to blackening and short life.

Burning positions

The lamps are illustrated in the position in which they are to be used. The deviations allowed are indicated by white sectors in a black circle.

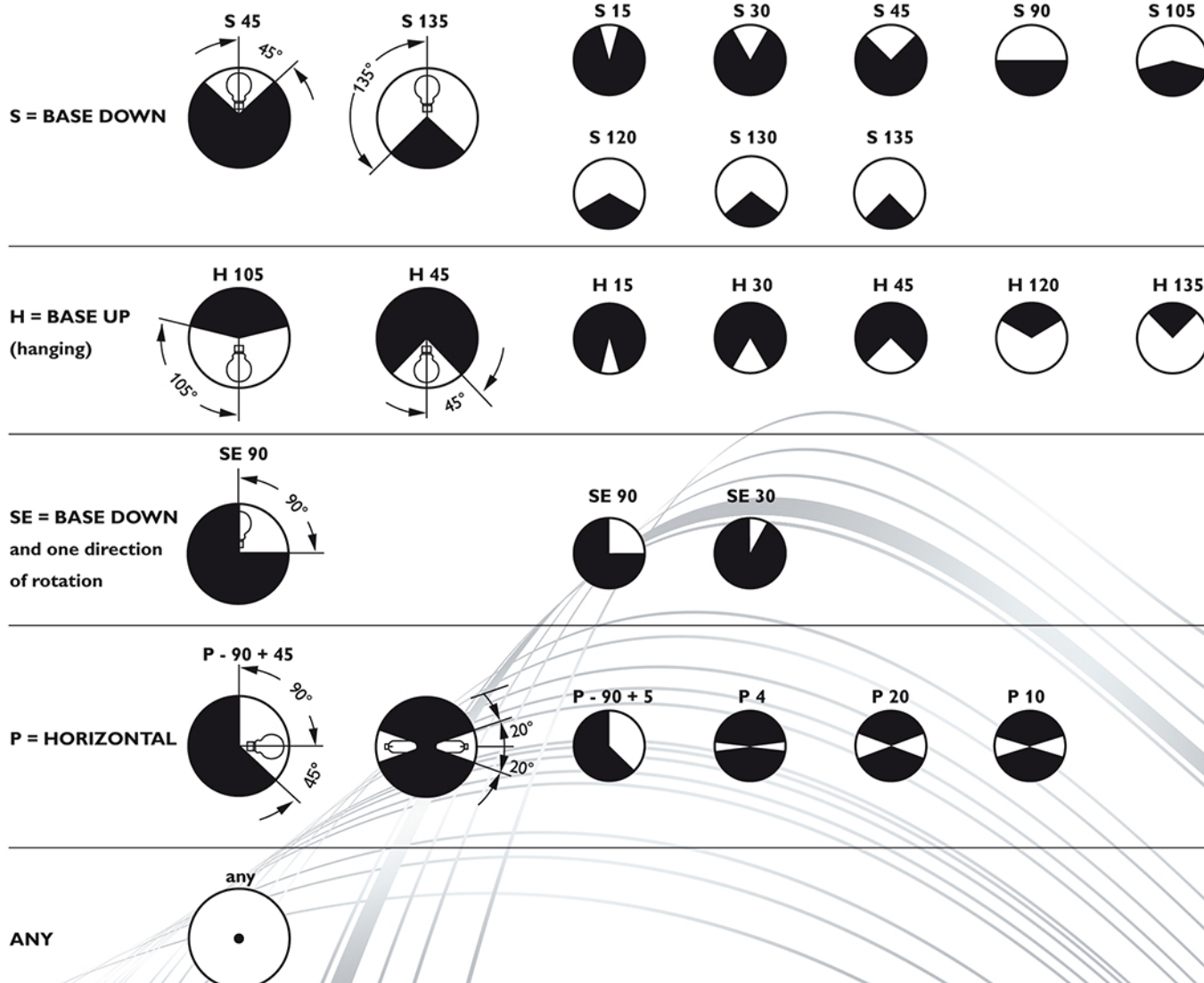
 allowed
 not allowed

Symbols

Examples

Different symbols used for

Projection, Photo, Studio, Theatre, TV and Disco lamps





LIF code	Philips type	ANSI code	Philips type	Osram code	Philips type	Osram code	Philips type
A1/223-5H	6423/5H	BTL	6800C 230V	54532	7786R/16	64777	6975 Z
A1/231-5H	6834/5H	DXX	13162R	54574	6365 R	64781	7012R
A1/231-8H	6834/8H	EFP/5H	6834/5H	54585	5968	64787	6994 Y
A1/244	7389	EFP/8H	6834/8H	54613	6994 Z	64788	6994 P
CP/63	6984P	EFR/5H	6423/5H	54631	6638P	64789	6994 Z
CP/65	6999P	EKM	13989R	54662	6827 Z	64789	6994 Z
CP/67 (CP/23)	6993P	ELC/5H	ELC/5H	54685	6800C	64796	6894Y
CP/68 (CP/39)	6993Z	EME	13477R	54687	7001C	64805	6963 Z
CP/70 (CP/24)	6995P	EXC	PAR64 VNSP	54689	6995C	93723	6980Z
CP/71 (CP/40)	6995Z	EXD	PAR64 NSP	54706	6995 Y	93728	7007
CP/72 (CP/43)	6994P	EXE	PAR64 MFL	64501	VL 150	93728LL	7007LL
CP/73 (CP/41)	6994Z	FDG	PF801 R	64502	VL 150	93729	7008
CP/75 (CP/55)	6994Y	FEP	6983P	64512	VL 300	93734	6983 P
CP/77	6983P	FEY	7012R	64515	VL 300		
CP/81	6872P	FKB	6998C	64516	VL300		
CP/82	6873P	FKD	6996C	64571	13162		
CP/85 (CP/29)	6963Z	FKH	6993Z	64571	13162 R		
CP/89	6638P	FKJ	6995Z	64579	PF 801 R		
CP/90	6895P	FKK/FKP	6994Z	64580	PF 801 R		
CP/91	6894Y	FRH	6873P 230V	64582	7786 R		
CP/92	6975Z	FRJ	6873P 240V	64583	7786 R		
CP60	PAR64 VNSP	FRL	6638P 230V	64662	6874 P		
CP61	PAR64 NSP	FRM	6638P 240V	64670	6820P		
CP62	PAR64 MFL	FSK	6872P 240V	64672	6877 P		
M/38	6874P	FSL	6872P 230V	64673	6872P		
M/40	6877P	FTL	6994P 240V	64674	6873P		
P1/12	PF801 R	FTM	6994P 230V	64678	6928P		
P1/14	PF810	FVA	6995P 230V	64680	7389		
P2/10	7775R/16	FVB	6995P 240V	64716	6986 P		
P2/11	13477R	FVC	6993P	64717	6638 P		
P2/12	6358R	FWP	6996P 230V	64718	6823 P		
P2/13	13162R	FWR	6996P 240V	64719	6998P		
P2/20	7786R	FWS	6897P	64720	6993 P		
P2/27	7012R	FWT	6897P	64721	6993 Z		
P2/35	13704R	GAB	6995I/BP 230V	64722	6998 C		
P2/7	13989R	GAD	6995I/BP 240V	64730	7764		
T/19 (T/11)	6996P	GCK/GCT	6823P 230V	64732	7804		
T/20 (T/14)	6996C	GCL/GCS	6823P 240V	64733	7804		
T/21 (T/12)	6998P	GCV/GVH	6820P 230V	64741	13989 R		
T/22 (T/13)	6998C	GCW/GCJ	6820P 240V	64742	6995 Z		
T/24 (T/17)	6800C	GKV	6986P	64743	6983P		
T/25 (T/18)	6820P	GLA	6992P	64744	6996 P		
T/27 (T/26)	6823P	GLB	6991P	64745	6995 P		
T/29	6897P	GLC	6989P	64746	6996 C		
		GLD	6981P	64747	6995 Z		
		GRS	7019G	64748 BXS	6995I/BP		
		GRT	7018G	64751 6358R			
				64752 6897 P			
				64754 6895 P			



Special HID lamps (Non Hot-Restrike lamps)

Philips	Osram	GE
Single-ended Metal Halide lamps with outer bulb		
MSR 400	HSR 400/60 HSR 575/60	CSR 400/CS
MSR 575/2	HSR 575/72	CSR 575/2/SE CSR 575/2/T/SE (8000 K)
MSR 700	HSR 700/60	
MSR 700/2		CSR 700/2/SE
MSR 1200	HSR 1200/60	
MSR 1200/2	HSR 1200/2	CSR 1200/2/SE
MSD 200	HSD 200/60	
MSD 200/2		
MSD 250	HSD 250/60	
MSD 250/2	HSD 250/80	CSD250/2 SE
MSD 575	HSD 575/60 (6000K) HSD 575(7000K)	
MSD 700		
MSD 1200	HSD 1200/60	

Philips	Osram	GE
Single-ended Metal Halide lamps without outer bulb		
MSR Gold™ 300/2 MiniFastFit		CSR 300/TAL
MSD Gold™ 300/2 MiniFastFit		CSR 300/TAL
MSR Gold™ 700/2 MiniFastFit		CSR 300/TAL
MSR Gold™ 700 FastFit		CSR 700/TAL
MSR Gold™ 700/2 FastFit		CSR 700/TAL
MSR Gold™ 1200 FastFit		CSR 1200/TAL
MSR Gold™ 1500 FastFit	Lok-it HTI 1500W/60/550	CSR 1500/TAL
MSR Gold™ 2000 FastFit		
MSR Gold™ 2000/2 FastFit		
MSR Gold™ 2500/2 FastFit		
CDM-SA/T 150W/942	HSD 150/70 HTI 150 W HTI 152 W HTI 200 W/SE HTI 250 W/SE HTI 400 W/SE HTI 403 W/SE HTI 404 W/SE	
MSR 400 SA	HTI 405 W/SE XS HTI 600 W/SE	
MSR 700 SA	HTI 705 W/SE	CSR 700 SA CSR 700 SA/72
MSR 1200 SA	HTI 1200 W/SE XS HTI 1800 W/SE	CSR 1200 SA CSR 1500 SA
MSR 2000 SA	HTI 2500 W/SE	CSR 2000 SA

Special HID lamps (Hot-Restrike lamps)

Philips	Osram	GE
Double ended Metal Halide Lamps		
MSR Gold™ 400 SA/2 DE	SharXS HTI 400 W/D3/75	CSR 400/S/DE/75
MSR Gold™ 575 SA/2 DE	SharXS HTI 575 W/D4/75	CSR 575/S/DE
MSR Gold™ 700 SA/2 DE	SharXS HTI 700 W/D4/75	CSR 700/S/DE
MSR Gold™ 1200 SA/DE	SharXS HTI 1200 W/D7/60	CSR 1200/S/DE/60
MSR Gold™ 1200 SA/2 DE	SharXS HTI 1200 W/D7/75	CSR 1200/S/DE/72
MSR Gold™ 1510 SA/DE	SharXS HTI 1500W/D7/60	CSR 1500/S/DE/60
	HMI 200	CSR 200/DE
	HTI 300 W/DX	
	HMD 300	
	HTI 600 W/D	
MSI 575	HMI 575 W/GS HMI 575 W/GS LL HTI 700 W/DE HMI 575 W/GS XS	CSR 575/DE
MSI 1200	HMI 1200 W/GS	CSR 1200/DE CSR 1200S/DE
MSR 1200 SA/DE	HMI 1200 W/S	
MSI 2500	HMI 2500 W/DEL HMI 2500 W/S	CSR 2500/DE
	HMD 2500	
MSI 4000	HMI 4000 W DE	CSR 4000/DE
MSI 6000	HMI 6000 W XS	CSR 6000/DE
MSI 12000	HMI 12000 W/XS	CSR 12000/DE
	HMI 18000 W	CSR 18000/DE CSR 18000S/DE
Single-ended Metal Halide lamps with outer bulb		
MSR 125 HR		CSR 125/SE/HR
	HMI 123	
MSR 200 HR	HMI 200 W/SE HMI 250 W/SE	CSR 200/SE/HR
MSR 250 HR	HMI 250 W/SE	
MSR 400 HR	HMI 400 W/SE	CSR 400/SE/HR CSR 400/SE/HR/75
MSR 575 HR	HMI 575 W/SEL	CSR 575/SE/HR
		CSR 800/SE/HR
MSR 1200 HR	HMI 1200 W/SE	CSR 1200/SE/HR
MSR 2500 HR	HMI 2500 W/SE XS	CSR 2500/SE/HR
MSR 4000 HR	HMI 4000 W/SE XS	CSR 4000/SE/HR
MSR 6000 HR	HMI 6000 W/SE XS	CSR 6000/SE/HR
MSR 12000 HR	HMI 12000 W/SE XS	CSR 12000/SE/HR
MSR 18000 HR	HMI 18000 W/SE	CSR 18000/SE/HR