

# specialty & accessories



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# how to read a table

**BULB** Designations indicate shape and size. Illustrations can be found on page 118 and at the top of each page.

**PACKAGE QUANTITY**

Indicates minimum sell quantity and smallest shipping carton.

**PRODUCT CODE** Abbreviated product description can also be used for ordering.

**BEAM SPREAD** Indicates the beam angle or beam spread of a bulb, measured in degrees.

**PRODUCT NUMBER** Use this product number when placing an order.

**LUMENS** Represents average light output.

**DESCRIPTION** Color description or other important information.

**MOL** Indicates maximum overall length in inches.

Bulb	Base	Product Number	Product Code	Description	Volts	Color Temp.	Lumens	Avg. Life	Pkg Qty	Beam Spread	MOL
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## ProLED PAR Lamps

### 5 WATT

PAR16	Med.	80827	PAR165NW40/LED	Natural White	120	5600	180	30000	1/10	40	3.35"
		80826	PAR165WW40/LED	Warm White	120	3100	140	30000	1/10	40	3.35"
		80831	PAR165AMB60/LED	Amber	120	-	-	30000	1/10	60	3.35"
		80829	PAR165BLU60/LED	Blue	120	-	-	30000	1/10	60	3.35"
		80830	PAR165GRN60/LED	Green	120	-	-	30000	1/10	60	3.35"
		80828	PAR165RED60/LED	Red	120	-	-	30000	1/10	60	3.35"

ANSI Code	Bulb	Base	Watts	Volts	Pkg Qty	Avg. Life	Filament	Lumens	Color Temp.	Operating Position
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## Haleco Photo/Projection/SSTV

BTL	T6	P28s	500	120	10/100	500	C-13	11000	3000	BOTH
BTN	T7	P28s	750	120	10/100	500	C-13D	17500	3200	U
DDL	MR16	GX5.3	150	20	10/250	500	C-8	-	3150	BOTH
DDS	MR16	GX5.3	80	21	10/250	1000	CC-8	-	3125	BOTH

**ANSI CODE** The specific electrical characteristics of a lamp.

**BASE** Indicates base type. Full base descriptions and illustrations can be found on page 118.

**WATTS** Indicates the power consumed by the lamp during operation.

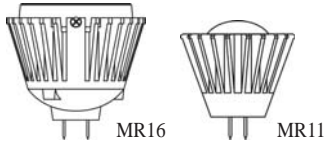
**VOLTS** Indicates the product's design voltage of operation.

**AVERAGE LIFE** Average rated life expressed in hours.

**FILAMENT** Filament types are illustrated on page 118.

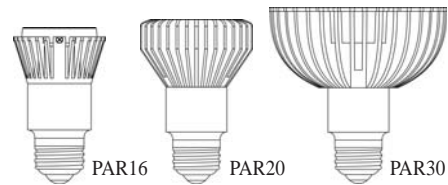
**COLOR TEMP.** A term used to describe the color of a light source and is expressed in degrees Kelvin (K).

**OPERATING POSITION** Indicates the approved operating position of a lamp.



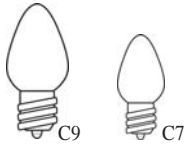
Bulb	Base	Product Number	Product Code	Description	Volts	Color Temp.	Lumens	Avg. Life	Pkg Qty	Beam Spread	MOL
<b>ProLED MR11, MR16</b>											
<b>2 WATT</b>											
MR11	G4	80603	<b>MR11/2NW25/LED</b>	Natural White	12	5600	80	30000	1/10	25	1.39"
		80600	<b>MR11/2WW25/LED</b>	Warm White	12	3100	68	30000	1/10	25	1.39"
		80604	<b>MR11/2NW40/LED</b>	Natural White	12	5600	80	30000	1/10	40	1.39"
		80601	<b>MR11/2WW40/LED</b>	Warm White	12	3100	68	30000	1/10	40	1.39"
		80605	<b>MR11/2NW120/LED</b>	Natural White	12	5600	80	30000	1/10	120	1.39"
		80602	<b>MR11/2WW120/LED</b>	Warm White	12	3100	68	30000	1/10	120	1.39"
<b>3 WATT</b>											
MR16	G5.3	80608	<b>MR16/3NW25/LED</b>	Natural White	12	5600	140	30000	1/10	25	2.1"
		80606	<b>MR16/3WW25/LED</b>	Warm White	12	3100	110	30000	1/10	25	2.1"
		80609	<b>MR16/3NW60/LED</b>	Natural White	12	5600	140	30000	1/10	60	2.1"
		80607	<b>MR16/3WW60/LED</b>	Warm White	12	3100	110	30000	1/10	60	2.1"
<b>5 WATT</b>											
MR16	G5.3	80619	<b>MR16/5NW25/LED</b>	Natural White	12	5600	180	30000	1/10	25	2"
		80616	<b>MR16/5WW25/LED</b>	Warm White	12	3100	140	30000	1/10	25	2"
		80614	<b>MR16/M5NW40/LED</b>	Natural White, 3 LEDs	12	5600	220	30000	1/10	40	2"
		80611	<b>MR16/M5WW40/LED</b>	Warm White, 3 LEDs	12	3100	190	30000	1/10	40	2"
		80620	<b>MR16/5NW60/LED</b>	Natural White	12	5600	180	30000	1/10	60	2"
		80617	<b>MR16/5WW60/LED</b>	Warm White	12	3100	140	30000	1/10	60	2"
		80625	<b>MR16/5AMB60/LED</b>	Amber	12	-	-	30000	1/10	60	2"
		80623	<b>MR16/5BLU60/LED</b>	Blue	12	-	-	30000	1/10	60	2"
		80624	<b>MR16/5GRN60/LED</b>	Green	12	-	-	30000	1/10	60	2"
		80622	<b>MR16/5RED60/LED</b>	Red	12	-	-	30000	1/10	60	2"
		80621	<b>MR16/5NW120/LED</b>	Natural White	12	5600	180	30000	1/10	120	2"
		80615	<b>MR16/M5NW120/LED</b>	Natural White, 3 LEDs	12	5600	220	30000	1/10	120	2"
		80618	<b>MR16/5WW120/LED</b>	Warm White	12	3100	140	30000	1/10	120	2"
		80612	<b>MR16/M5WW120/LED</b>	Warm White, 3 LEDs	12	3100	190	30000	1/10	120	2"

## Solid State Lighting



Bulb	Base	Product Number	Product Code	Description	Volts	Color Temp.	Lumens	Avg. Life	Pkg Qty	Beam Spread	MOL
<b>ProLED PAR Lamps</b>											
<b>5 WATT</b>											
PAR16	Med.	80627	PAR 16/5NW40//LED	Natural White	120	5600	180	30000	1/10	40	3.35"
		80626	PAR 16/5WW40//LED	Warm White	120	3100	140	30000	1/10	40	3.35"
		80631	PAR 16/5AMB60//LED	Amber	120	-	-	30000	1/10	60	3.35"
		80629	PAR 16/5BLU60//LED	Blue	120	-	-	30000	1/10	60	3.35"
		80630	PAR 16/5GRN60//LED	Green	120	-	-	30000	1/10	60	3.35"
		80628	PAR 16/5RED60//LED	Red	120	-	-	30000	1/10	60	3.35"
<b>8 WATT</b>											
PAR20	Med.	80638	PAR 20/8RGB25//LED	Color Changing Red, Green, Blue	120	-	-	30000	1/6	25	3.5"
		80636	PAR 20/8NW40//LED	Natural White	120	5500	320	30000	1/6	40	3.5"
		80633	PAR 20/8WW40//LED	Warm White	120	3100	280	30000	1/6	40	3.5"
		80642	PAR 20/8AMB40//LED	Amber	120	-	-	30000	1/6	40	3.5"
		80640	PAR 20/8BLU40//LED	Blue	120	-	-	30000	1/6	40	3.5"
		80641	PAR 20/8GRN40//LED	Green	120	-	-	30000	1/6	40	3.5"
		80639	PAR 20/8RED40//LED	Red	120	-	-	30000	1/6	40	3.5"
		80635	PAR 20/8NW60//LED	Natural White	120	5500	320	30000	1/6	60	3.5"
		80632	PAR 20/8WW60//LED	Warm White	120	3100	280	30000	1/6	60	3.5"
		80637	PAR 20/8NW120//LED	Natural White	120	5500	320	30000	1/6	120	3.5"
		80634	PAR 20/8WW120//LED	Warm White	120	3100	280	30000	1/6	120	3.5"
		<b>14 WATT</b>									
PAR30	Med.	80646	PAR 30/14NW25//LED	Natural White	120	5500	710	30000	1/6	25	3.63"
		80643	PAR 30/14WW25//LED	Warm White	120	3100	590	30000	1/6	25	3.63"
		80647	PAR 30/14NW60//LED	Natural White	120	5500	710	30000	1/6	60	3.63"
		80644	PAR 30/14WW60//LED	Warm White	120	3100	590	30000	1/6	60	3.63"
		80648	PAR 30/14NW120//LED	Natural White	120	5500	710	30000	1/6	120	3.63"
		80645	PAR 30/14WW120//LED	Warm White	120	3100	590	30000	1/6	120	3.63"

## Solid State Lighting

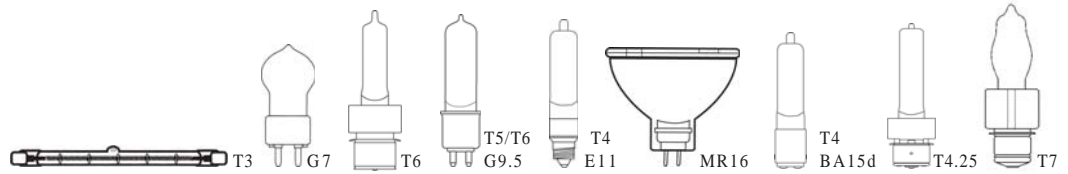


Bulb	Base	Watts	Product Number	Product Code	Description	Avg. Life	Pkg Qty	MOL
<b>ProLED C7 and C9</b>								
C7	Cand.	0.96	80504	<b>C7CL/LED</b>	Clear Smooth	60000	10/200	1.3"
		0.96	80510	<b>C7CL/FC/LED</b>	Clear Faceted	60000	10/200	1.3"
		0.96	80502	<b>C7BLU/LED</b>	Blue Smooth	60000	10/200	1.3"
		0.96	80508	<b>C7BLU/FC/LED</b>	Blue Faceted	60000	10/200	1.3"
		0.96	80503	<b>C7GRN/LED</b>	Green Smooth	60000	10/200	1.3"
		0.96	80509	<b>C7GRN/FC/LED</b>	Green Faceted	60000	10/200	1.3"
		0.96	80500	<b>C7RED/LED</b>	Red Smooth	60000	10/200	1.3"
		0.96	80506	<b>C7RED/FC/LED</b>	Red Faceted	60000	10/200	1.3"
		0.96	80505	<b>C7RG/LED</b>	Red/Green Smooth	60000	10/200	1.3"
		0.96	80501	<b>C7YEL/LED</b>	Yellow Smooth	60000	10/200	1.3"
		0.96	80507	<b>C7YEL/FC/LED</b>	Yellow Faceted	60000	10/200	1.3"
C9	Int.	0.96	80515	<b>C9CL/FC/LED</b>	Clear Faceted	60000	10/200	1.6"
		0.96	80513	<b>C9BLU/FC/LED</b>	Blue Faceted	60000	10/200	1.6"
		0.96	80514	<b>C9GRN/FC/LED</b>	Green Faceted	60000	10/200	1.6"
		0.96	80511	<b>C9RED/FC/LED</b>	Red Faceted	60000	10/200	1.6"
		0.96	80512	<b>C9YEL/FC/LED</b>	Yellow Faceted	60000	10/200	1.6"

**LED Nightlights and Flashlight**

-	-	-	19800	<b>FL6LED/B</b>	6 LED Flashlight with blister pack display	-	10/10	-
-	-	-	80910	<b>LED/NL1</b>	LED Nightlight with photo sensor	-	10/60	-
-	-	-	80911	<b>LED/NL2</b>	LED Nightlight with photo sensor and 360 degrees rotation	-	10/60	-

Photo/Projection/SSTV

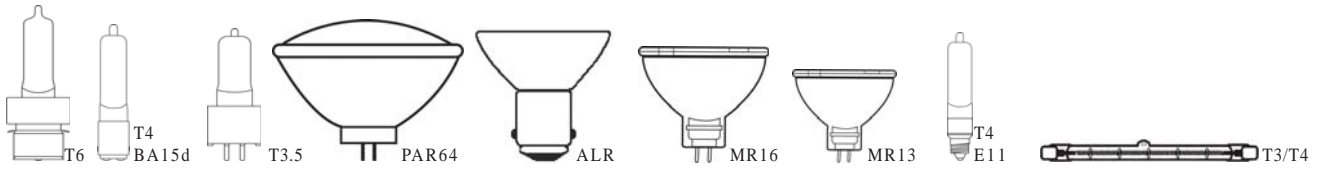


ANSI Code	Bulb	Base	Watts	Volts	Pkg Qty	Avg. Life	Filament	Lumens	Color Temp.	Operating Position
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**Halco Photo/Projection/SSTV**

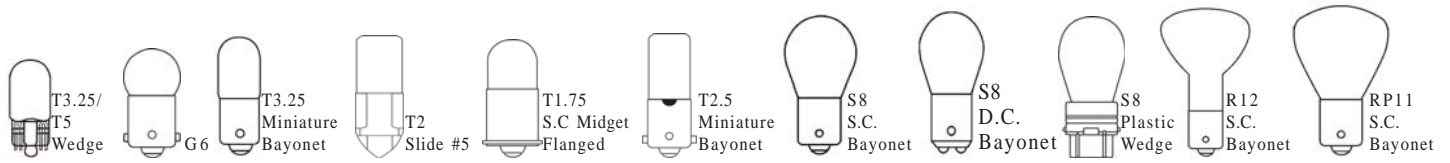
BTL	T6	P28s	500	120	10/100	500	C-13	11000	3000	BDTH
BTN	T7	P28s	750	120	10/100	500	C-13D	17500	3200	U
DDL	MR16	GX5.3	150	20	10/250	500	C-8	-	3150	BDTH
DDS	MR16	GX5.3	80	21	10/250	1000	CC-6	-	3125	BDTH
DED	MR16	GX5.3	85	13.8	10/250	1000	C-6	-	3150	BDTH
DVS	T3	R7s	500	130	10/500	2000	C-8	9500	3000	HOR
DYS/DYV/BHC	G7	GZ9.5	600	120	10/200	75	CC-6	17000	3200	HOR
DYS/DYV/BHC/5	G7	GZ9.5	600	125	10/200	150	CC-6	17000	3200	HOR
EGE	T4.25	P28s	500	120	10/100	2000	CC-8	10450	2950	U
EGG	T6	P28s	750	120	10/100	2000	CC-8	15750	3000	U
EHC/EHB	T6	G9.5	500	120	10/100	500	CC-8	12700	3150	U
EHD	T5	G9.5	500	120	10/100	2000	CC-8	10600	3000	U
EHF	T6	G9.5	750	120	10/100	300	CC-8	20000	3200	U
EHM	T3	R7s	300	120	10/500	2000	C-8	5000	2950	HOR
EHV	T4	E11	325	120	10/200	500	CC-8	7800	3000	U
EJA	MR16	GX5.3	150	21	10/250	40	CC-6	-	3400	BDTH
EJL	MR16	GX5.3	200	24	10/250	50	CC-6	-	3400	BDTH
EJM	MR16	GX5.3	150	21	10/250	40	CC-6	-	3350	BDTH
EJV	MR16	GX5.3	150	21	10/250	40	CC-8	-	3350	BDTH
EKE	MR16	GX5.3	150	21	10/250	200	CC-6	-	3250	BDTH
ELC	MR16	GX5.3	250	24	1/24	50	CC-6	-	3400	BDTH
ELH	MR16	GY5.3	300	120	10/200	35	CC-8	-	3350	BDTH
ENH	MR16	GY5.3	250	120	10/200	175	CC-8	-	3250	BDTH
ENX	MR16	GY5.3	360	82	10/250	75	CC-8	-	3300	BDTH
ENX/5	MR16	GY5.3	360	86	10/250	100	CC-8	-	3300	BDTH
ESD	MR16	GY5.3	150	120	10/200	12	CC-8	-	3350	BDTH
ESL	T4	E11	150	120	10/200	1000	CC-2V	2800	2900	U
ESM	Frosted/T4	E11	250	120	10/100	2000	CC-8	4850	2950	U
ESN	T4	E11	100	120	10/200	750	CC-2V	1900	2850	U
ESP	T4	BA15d	150	120	10/200	1000	CC-2V	2400	2950	U
ESR	T4	BA15d	100	120	10/200	1000	CC-2V	1900	3000	U
ESS	T4	BA15d	250	120	10/100	2000	CC-8	5000	3000	U

## Photo/Projection/SSTV



ANSI Code	Bulb	Base	Watts	Volts	Pkg Qty	Avg. Life	Filament	Lumens	Color Temp.	Operating Position
<b>Haleco Photo/Projection/SSTV (cont'd)</b>										
ETB	Frosted/T4	BA15d	250	120	10/200	2000	CC-8	4700	2950	U
ETC	T4	BA15d	150	20	10/200	2000	CC-8	2800	2900	U
ETD	Frosted/T4	BA15d	100	120	10/200	750	CC-2V	1750	2900	U
ETE	Frosted/T4	E11	100	120	10/200	750	CC-2V	1750	2900	U
ETF	Frosted/T4	BA15d	150	120	10/200	2000	CC-8	2700	2900	U
ETG	T4	E11	150	120	10/400	2000	CC-8	2400	2950	U
ETH	Frosted/T4	E11	150	120	10/200	2000	CC-8	2700	2900	U
EVR	T4	E11	500	120	10/100	2000	CC-8	10450	2950	U
EVW	MR16	GY5.3	250	82	10/250	50	CC-8	-	3300	BDTH
EYA	MR16	GY5.3	200	82	10/200	50	CC-8	-	3300	BDTH
EYB	T3.5	G5.3	360	82	10/100	75	CC-8	10000	3300	BDTH
EYB/5	T3.5	G5.3	360	86	10/200	150	CC-8	10000	3300	BDTH
EYV	Frosted/T4	E11	500	130	10/400	2000	CC-8	8075	3000	U
EYW	T4	E11	500	130	10/400	2000	CC-8	8500	3000	U
EYX	Frosted/T4	E11	500	120	10/200	1700	CC-8	8800	2950	U
EXR	MR13	GX5.3	300	82	10/200	35	CC-8	-	3350	BDTH
EXR/5	MR13	GX5.3	300	86	10/200	70	CC-8	-	3350	BDTH
EXY	MR13	GX5.3	250	82	10/250	200	CC-8	-	3200	BDTH
FAL	T4	R7s	420	120	10/100	90	CC-8	11000	3200	U
FCL	T3	R7s	500	120	10/500	2000	C-8	9500	3000	HOR
FCM	T3	R7s	1000	120	10/200	300	C-8	27000	3200	HOR
FCR	T3.5	GY6.35	100	12	10/500	50	C-6F	2900	3250	BDTH
FCS	T4	G6.35	150	24	10/500	50	C-6F	4500	3400	ANY
FEL	T6	G9.5	1000	120	10/100	300	CC-8	27000	3200	BDTH
FFN	PAR64	Ext Mog End Prong	1000	120	6	800	C-7A	400000	3200	U
FHM	Frosted/T3	R7s	1000	120	10/100	300	C-8	26000	3200	HOR
FHS	MR13	GX5.3	300	82	10/100	70	CC-8	-	3300	BDTH
FHS/5	MR13	GX5.3	300	86	10/100	140	CC-8	-	3300	BDTH
FLK	T6	G9.5	575	115	10/100	300	CC-8	16000	3200	U
GBE	ALR	DC Bayonet	20	12	1/50	2000	CC-8	1500cp	3000	U
GBF	ALR	DC Bayonet	20	12	1/50	2000	CC-8	750cp	3000	U

Miniature



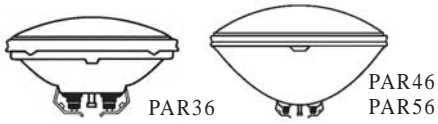
Product Code	Bulb	Base	Volts	Watts	Pkg Qty	Candle Power	Avg. Life	Design Filament	MOL
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Miniatures

89	G6	S.C. Bayonet	13.0	.58A	10/2000	6	750	C-2R	1.4"
93	S8	S.C. Bayonet	12.8	1.04A	10/2000	15	700	C-6	2.0"
94	S8	D.C. Bayonet	12.8	1.04A	10/2000	15	700	C-6	2.0"
120MB	T2.5	Miniature Bayonet	120.0	.025A	10/100	0.36	10000	CC-7A	1.2"
120PSB	T2	Slide #5	120.0	.025A	10/50	-	10000	CC-7A	1.1"
193	T3.25	Wedge	14.0	.33A	50	2	15000	C-2F	1.1"
194	T3.25	Wedge	14.0	.27A	10/2000	2	2500	C-2F	1.1"
387	T1.75	S.C. Midget Flanged	28.0	.04A	10/50	.03	7000	C-2F	0.6"
755	T3.25	Miniature Bayonet	6.3	.15A	10/2000	0.33	20000	C-2R	1.2"
904	T5	Wedge	13.5	.69A	10/2000	4	5000	C-2F	1.5"
906	T5	Wedge	13.0	.69A	10/2000	6	1000	C-2F	1.5"
908	T5	Wedge	6.0	1.50A	10/2000	12	50	C-2R	1.5"
909	T5	Wedge	6.0	.62A	10/2000	3	50	C-2R	1.5"
912	T5	Wedge	12.8	1.00A	10/2000	12	1000	C-2R	1.5"
912x Xenon	T3.25	Wedge	12.8	1.00A	10/600	12	10000	C-2R	1.5"
915	T5	Wedge	12.0	.75A	10/2000	11	50	C-2R	1.5"
918	T5	Wedge	12.8	.56A	10/2000	6.5	500	C-2R	1.5"
918x Xenon	T3.25	Wedge	12.8	.56A	10/600	6.5	10000	C-2R	1.5"
921	T5	Wedge	12.8	1.40A	10/2000	21	500	C-2R	1.5"
921x Xenon	T3.25	Wedge	12.8	1.4A	10/600	21	10000	C-2R	1.5"
927	T5	Wedge	6.0	12.0A	10/50	8	50	C-2R	1.5"
963	T5	Wedge	6.0	2.0A	10/2000	15	50	C-2R	1.5"
1141	S8	S.C. Bayonet	12.8	1.44A	10/2000	21	1000	C-6	2.0"
1142	S8	D.C. Bayonet	12.8	1.44A	10/2000	21	1000	C-6	2."
1156	S8	S.C. Bayonet	12.8	2.10A	10/2000	32	1200	C-6	2.0"
1195	RP11	S.C. Bayonet	12.5	3.00A	10/500	50	300	C-2V	2.3"
1383	R12	S.C. Bayonet	13.0	20W	10/1000	-	300	C-8	2.6"
1383/TF	R12	S.C. Bayonet /Teflon	13.0	20W	10/1000	-	-	C-8	2.6"
1815	T3.25	Miniature Bayonet	14.0	.20A	10/2000	1.4	3000	C-2F	1.2"
1820	T3.25	Miniature Bayonet	28.0	.10A	10/2000	1.6	1000	C-2F	1.2"
3155	S8	Plastic Wedge	12.8	1.60A	10/2000	21	1500	C-6	2.1"
3156	S8	Plastic Wedge	12.8	2.10A	10/2000	32	1200	C-6	2.1"



## Sealed Beam



Product Code	Bulb	Base	Volts	Watts	Pkg Qty	Candle Power	Avg. Life	Design Filament	Beam Spread	MOL
<b>Sealed Beam</b>										
4044	PAR36	Screw Terminals	12.0	12W	1/12	1110	150	C-6	50	2.8"
4044-1	PAR36	Slip-on Terminals	12.0	12W	1/12	1110	150	C-6	50	2.8"
4405	PAR36	Screw Terminals	12.8	30W	1/12	1100	150	C-6	50	2.8"
4406	PAR36	Screw Terminals	12.8	35W	1/12	600	300	C-6	80	2.8"
4411	PAR36	Screw Terminals	12.8	35W	1/12	3000	300	C-6	-	2.8"
4414	PAR36	Screw Terminals	12.8	18W	1/12	1500	300	C-6	50	2.8"
4415	PAR36	Screw Terminals	12.8	35W	1/12	9000	300	C-6	40	2.8"
4446	PAR36	Screw Terminals	12.8	25W	1/12	400	300	C-6	80	2.8"
4505	PAR36	Screw Terminals	28.0	50W	1/12	45000	400	C-6	5	2.8"
4515	PAR36	Screw Terminals	6.4	30W	1/12	55000	100	C-6	5	2.8"
4535	PAR46	Screw Terminals	6.4	30W	1/12	95000	100	C-6	5.5	3.8"
4545	PAR56	Screw Terminals	12.0	100W	1/12	225000	100	C-6	9	4.5"
4546	PAR36	Screw Terminals	4.7	.050A	1/12	6300	100	C-2R	3	2.8"
4587	PAR36	Screw Terminals	28.0	250W	1/12	40000	25	CC-8	40	2.8"
7613	PAR36	Screw Terminals	6.0	8W	1/12	400	50	C-6	30	2.8"
7613-1	PAR36	Slip-on Terminals	6.0	8W	1/6	400	50	C-6	30	2.8"
H4515	PAR36	Screw Terminals	6.4	30W	1/12	67000	100	C-6	5.5	2.8"

## Recycling

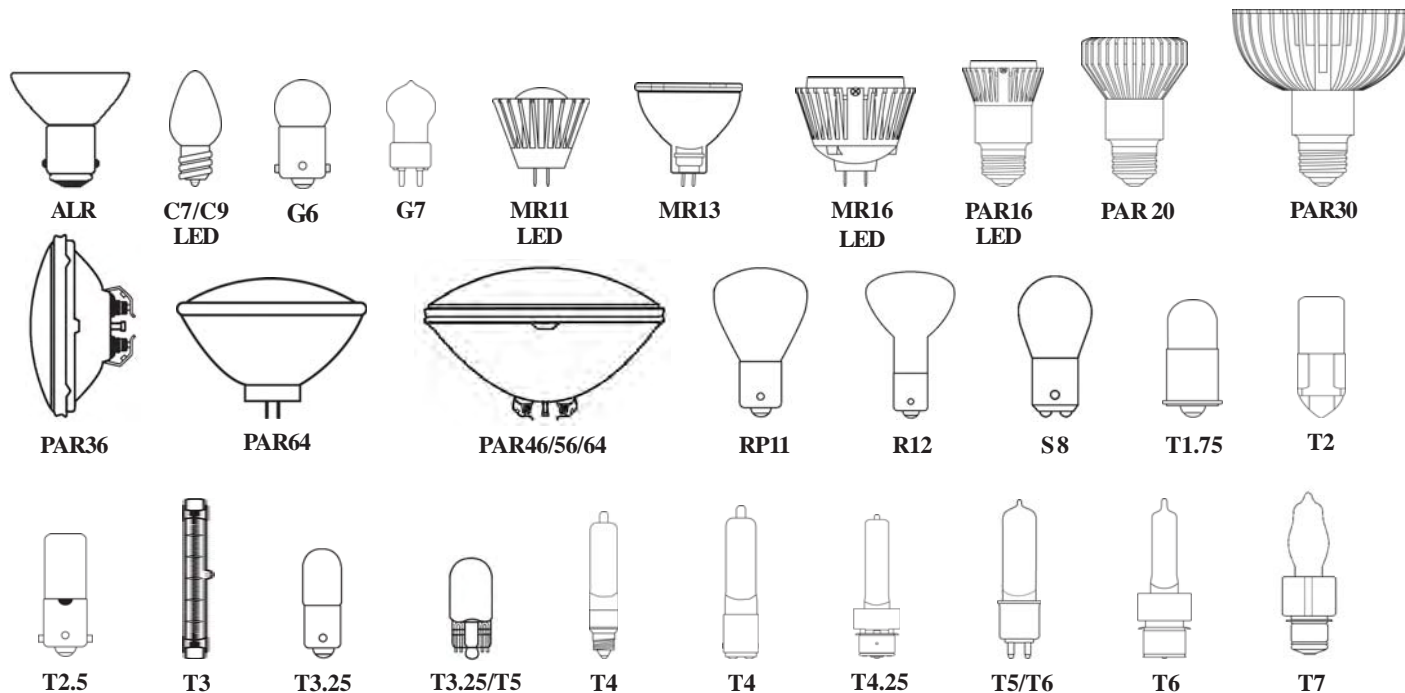
Product Number	Product Code	Description	Pkg Qty
<b>Prepaid Recycle Kits</b>			
91200	RCYCL/FL60/4FT	4ft Recycling Box - Holds 30 T12 or 60 T8 Linear lamps.	1/10
91201	RCYCL/FL30/8FT	8ft Recycling Box - Holds 15 T12 or 30 T8 Linear lamps.	1/10
91202	RCYCL/FL146/4FT	4ft Recycling Box - Holds 68 T12 or 146 T8 Linear lamps.	1/10
91203	RCYCL/MIX/5GAL	5 Gallon Mixed Lamp Recycling Pail for CFL, Circular, U-Bends and HID lamps.	1/10
91204	RCYCL/CFL12	Consumer CFL Recycling Box - Holds 12 CFLs. Box size is 6" x 6" x 6".	1/10
91205	RCYCL/MIX/2FT	Mixed Lamp Recycling Box for CFL, Circular, U-Bends and HID lamps. Box size is 16" x 16" x 25".	1/10
91206	RCYCL/BAL/5GAL	5 Gallon Ballast Recycling Pail. Holds up to 50 lbs. of ballasts.	1/10

## Accessories

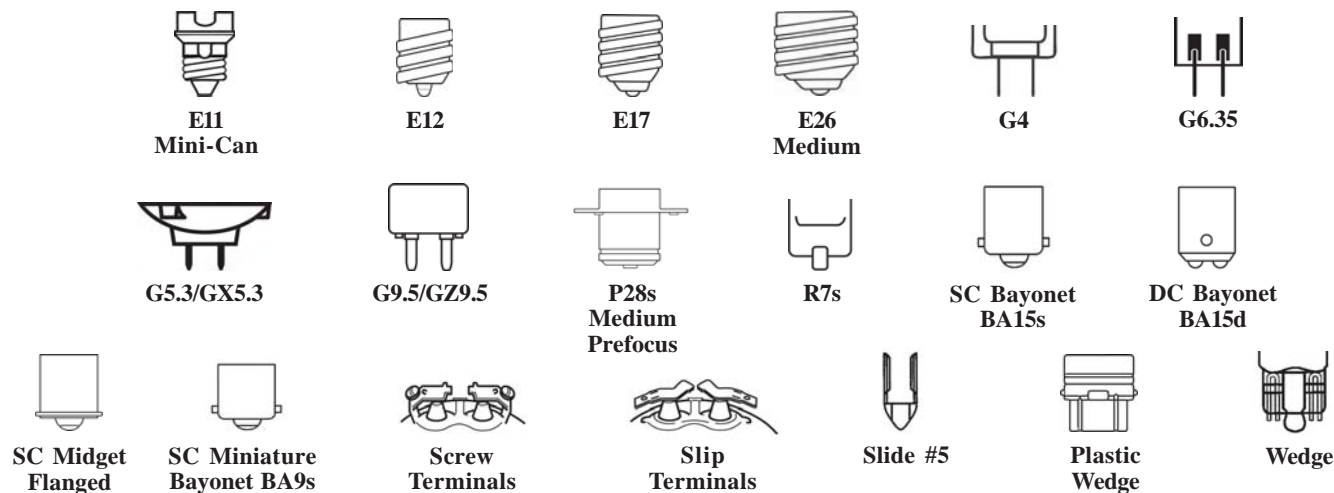
Product Number	Product Code	Description	Pkg Qty
<b>Tube Guards</b>			
91020	TG32T8CL	4' T8 Clear	24
91021	TG40T12CL	4' T12 Clear	24
91022	TG96T8CL	8' T8 Clear	24
91023	TG96T12CL	8' T12 Clear	24
<b>Adapters</b>			
91003	ADP/E26/E12	Porcelain Adapter E26 to E12	1/200
91001	ADP/E26/GU24	Locking Adapter E26 to GU24	1/200
91002	ADP/E39/E26	Porcelain Adapter E39 to E26	1/200
<b>Extenders</b>			
91000	ADP/E26/E26	Porcelain Extender E26	1/200

Bulb, Base and Filament Identification Guide

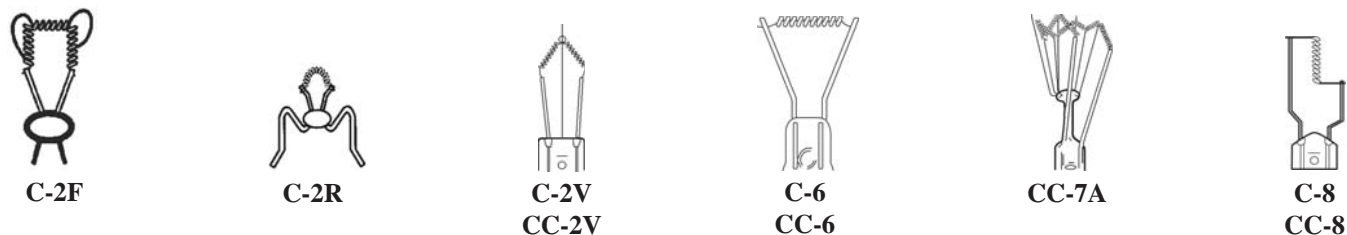
**BULB SHAPES**



**BASE TYPES**



**FILAMENT DESIGNATIONS**



CC indicates coiled-coiled filament.

# compact fluorescent



## Contents

20	How to read a table	29	Spiral Tube 4-Pin
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25	Decorative Electronic Self-Ballasted	31	Electronic GU24 Adapters
27	Single Tube 2-Pin	31	Electronic and Electromagnetic Ballasts
27	Single Tube 4-Pin	32	Bulb and Base Identification
27	Double Tube 2-Pin	33	Cross Reference Guide
28	Double Tube 4-Pin	36	Symbols, Footnotes and Abbreviations
29	Triple Tube 4-Pin		

# how to read a table

**BULB** Designations indicate shape and/or tube size. Illustrations can be found on page 32 and at the top of each page.

**BASE** Indicates base type. Full base descriptions and illustrations can be found on page 32.

**PRODUCT CODE** Abbreviated product description can also be used for ordering. A key to abbreviations can be found on page 36.

**PACKAGE QUANTITY** Indicates minimum sell quantity and smallest shipping carton.

**COLOR TEMP.** A term used to describe the color of a light source and is expressed in degrees Kelvin (K).

**MOL** Indicates maximum overall length in inches.

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
------	------	----------------	-----------	--------------	-------------	---------	-------------	-----	--------	-----------	-----

## ProLume® CFL Bare Spiral

### 18 WATT

T2	Med.	45062	★ † \$,1,2,3	<b>CFL18/27/T2</b>	Warm White	10/60	2700	82	1100	10000	4.56"
		46615	† \$,1,2,3	<b>CFL18/27/T2/FS</b>	Warm White Full Spiral	10/50	2700	82	1280	12000	4.33"
		45064	† \$,1,2,3	<b>CFL18/35/T2</b>	White	10/60	3500	82	1100	10000	4.56"
		45065	† \$,1,2,3	<b>CFL18/41/T2</b>	Cool White	10/60	4100	82	1100	10000	4.56"
		46617	† \$,1,2,3	<b>CFL18/41/T2/FS</b>	Cool White Full Spiral	10/50	4100	82	1280	12000	4.33"
		45066	† \$,1,2,3	<b>CFL18/50/T2</b>	Natural White	10/60	5000	82	1100	10000	4.56"
		46618	† \$,1,2,3	<b>CFL18/50/T2/FS</b>	Natural White Full Spiral	10/50	5000	82	1280	12000	4.33"
T3	Med.	45120	★ † \$,1,2,3	<b>CFL18/27</b>	Warm White	10/50	2700	82	1200	12000	5.31"

**WATTS** Indicates the power consumed by the lamp during operation.

**FOOTNOTES & SYMBOLS** Related footnotes can be found on page 36.

**DESCRIPTION** Color description or other important information.

**AVERAGE LIFE** Average rated life expressed in hours, based on 3 hours per start.

**PRODUCT NUMBER** Use this product number when placing an order.

**LUMENS** Represents average light output.

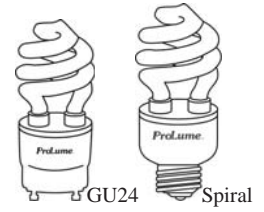
**CRI** An international scale from 0 to 100 that indicates the relative color rendering value of a light source. The Color rendering index expresses the degree to which colors will look "natural" under a given light source.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® CFL Bare Spiral</b>											
<b>5 WATT</b>											
T2	Cand.	45011	† \$,1,2,3	CFL5/27/E12	Warm White	10/60	2700	82	250	10000	3.5"
		45015	† \$,1,2,3	CFL5/35/E12	White	10/60	3500	82	250	10000	3.5"
		45017	† \$,1,2,3	CFL5/41/E12	Cool White	10/60	4100	82	250	10000	3.5"
		45019	† \$,1,2,3	CFL5/50/E12	Natural White	10/60	5000	82	250	10000	3.5"
	Med.	45010	† \$,1,2,3	CFL5/27	Warm White	10/60	2700	82	250	10000	3.6"
		46600	† \$,1,2,3	CFL5/27/FS	Warm White Full Spiral	10/50	2700	82	300	12000	2.98"
		45014	† \$,1,2,3	CFL5/35	White	10/60	3500	82	250	10000	3.56"
		45016	† \$,1,2,3	CFL5/41	Cool White	10/60	4100	82	250	10000	3.56"
45018	† \$,1,2,3	CFL5/50	Natural White	10/60	5000	82	250	10000	3.56"		
<b>7 WATT</b>											
T3	Med.	109247	† \$,1,2,3	CFL7/27	Warm White	10/50	2700	82	420	8000	4.13"
		109249	† \$,1,2,3	CFL7/41	Cool White	10/50	4100	82	420	8000	4.13"
<b>9 WATT</b>											
T2	Cand.	45031	† \$,1,2,3	CFL9/27/E12	Warm White	10/60	2700	82	500	10000	4"
		45035	† \$,1,2,3	CFL9/35/E12	White	10/60	3500	82	500	10000	4"
		45037	† \$,1,2,3	CFL9/41/E12	Cool White	10/60	4100	82	500	10000	4"
		45039	† \$,1,2,3	CFL9/50/E12	Natural White	10/60	5000	82	500	10000	4"
	Med.	45030	★ † \$,1,2,3	CFL9/27	Warm White	10/60	2700	82	500	10000	4.06"
		46605	† \$,1,2,3	CFL9/27/FS	Warm White Full Spiral	10/50	2700	82	500	12000	3.41"
		45034	† \$,1,2,3	CFL9/35	White	10/60	3500	82	500	10000	4.06"
		45036	★ † \$,1,2,3	CFL9/41	Cool White	10/60	4100	82	500	10000	4.06"
45038	† \$,1,2,3	CFL9/50	Natural White	10/60	5000	82	500	10000	4.06"		
<b>11 WATT</b>											
T3	Med.	109240	★ \$,1,2,3	CFL11/27	Warm White	10/50	2700	82	700	8000	4.69"
		109242	\$,1,2,3	CFL11/41	Cool White	10/50	4100	82	700	8000	4.69"
		109244	\$,1,2,3	CFL11/50	Natural White	10/50	5000	82	700	8000	4.69"
		109224	\$,1,2,3	CFL11/BLU	Blue	10/50	-	-	-	8000	4.69"
		109226	\$,1,2,3	CFL11/GRN	Green	10/50	-	-	-	8000	4.69"
		109220	\$,1,2,3	CFL11/RED	Red	10/50	-	-	-	8000	4.69"
		109222	\$,1,2,3	CFL11/YEL	Yellow	10/50	-	-	-	8000	4.69"

# Compact Fluorescent

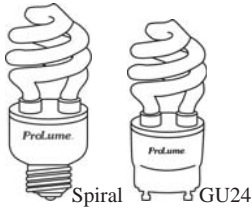
## Self-Ballasted



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® CFL Bare Spiral (cont'd)</b>											
<b>13 WATT</b>											
T2	Cand.	45051	† \$,1,2,3	<b>CFL13/27/T2/E12</b>	Warm White	10/60	2700	82	800	10000	4.19"
		45055	† \$,1,2,3	<b>CFL13/35/T2/E12</b>	White	10/60	3500	82	800	10000	4.19"
		45057	† \$,1,2,3	<b>CFL13/41/T2/E12</b>	Cool White	10/60	4100	82	800	10000	4.19"
		45059	† \$,1,2,3	<b>CFL13/50/T2/E12</b>	Natural White	10/60	5000	82	800	10000	4.19"
		Med.	45050	★† \$,1,2,3	<b>CFL13/27/T2</b>	Warm White	10/60	2700	82	800	10000
	45070		★† \$,1,2,3	<b>CFL13/27/T2/4PK</b>	Warm White 4-Pack	20/60	2700	82	800	10000	4.19"
	46610		† \$,1,2,3	<b>CFL13/27/T2/FS</b>	Warm White Full Spiral	10/50	2700	82	900	12000	3.84"
	45054		† \$,1,2,3	<b>CFL13/35/T2</b>	White	10/60	3500	82	800	10000	4.19"
	45056		★† \$,1,2,3	<b>CFL13/41/T2</b>	Cool White	10/60	4100	82	800	10000	4.19"
	GU24	45073	★† \$,1,2,3	<b>CFL13/41/T2/4PK</b>	Cool White 4-Pack	20/60	4100	82	800	10000	4.19"
		45058	† \$,1,2,3	<b>CFL13/50/T2</b>	Natural White	10/60	5000	82	800	10000	4.19"
		46506	† \$,1,2,3	<b>CFL13/27/GU24</b>	Warm White GU24	10/60	2700	82	800	10000	3.63"
		46526	† \$,1,2,3	<b>CFL13/41/GU24</b>	Cool White GU24	10/60	4100	82	800	10000	3.63"
		46527	† \$,1,2,3	<b>CFL13/50/GU24</b>	Natural White GU24	10/60	5000	82	800	10000	3.63"
	T3	Med.	45101	★† \$,1,2,3	<b>CFL13/27</b>	Warm White	10/50	2700	82	900	10000
45103			† \$,1,2,3	<b>CFL13/35</b>	White	10/50	3500	82	900	10000	4.44"
45104			† \$,1,2,3	<b>CFL13/41</b>	Cool White	10/50	4100	82	900	10000	4.44"
45105			† \$,1,2,3	<b>CFL13/50</b>	Natural White	10/50	5000	82	900	10000	4.44"
45107			† \$,1,2,3	<b>CFL13/65</b>	Daylight	10/50	6500	82	900	10000	4.44"
<b>13/20/25 WATT</b>											
T3	Med.	45720	† \$,1,2,3,8	<b>CFL25/27/3WAY</b>	Warm White 3-Way	10/50	2700	82	900/ 1200/ 1550	8000	6.13"
		45721	† \$,1,2,3,8	<b>CFL25/41/3WAY</b>	Cool White 3-Way	10/50	4100	82	900/ 1200/ 1550	8000	6.13"
<b>14 WATT</b>											
T3	Med.	46301	★† \$,1,3,9	<b>CFL14/27/DIM</b>	Warm White Dimmable	1/12	2700	82	925	8000	4.13"
<b>15 WATT</b>											
T3	Med.	109252	★\$,1,2,3	<b>CFL15/27</b>	Warm White	10/50	2700	82	950	12000	4.94"
		109330	\$,1,2,3	<b>CFL15/35</b>	White	10/50	3500	82	950	12000	4.94"
		109261	\$,1,2,3	<b>CFL15/41</b>	Cool White	10/50	4100	82	950	12000	4.94"
		109272	\$,1,2,3	<b>CFL15/50</b>	Natural White	10/50	5000	82	950	12000	4.94"
		109270	\$,1,2,3	<b>CFL15/BLB</b>	Blacklight-Blue	1/20	-	-	-	12000	4.94"
		109288	\$,1,2,3	<b>CFL15/YEL</b>	Yellow	1/50	-	-	-	12000	4.94"

Compact Fluorescents symbols, footnotes and abbreviations are located on page 36.

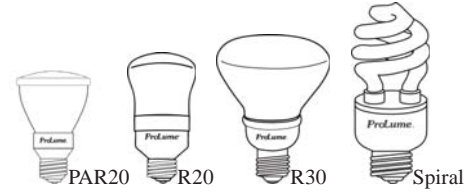




Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® CFL Bare Spiral (cont'd)</b>											
<b>18 WATT</b>											
T2	Med.	45062	★ † \$,1,2,3	CFL18/27/T2	Warm White	10/60	2700	82	1100	10000	4.56"
		46615	† \$,1,2,3	CFL18/27/T2/FS	Warm White Full Spiral	10/50	2700	82	1280	12000	4.33"
		45064	† \$,1,2,3	CFL18/35/T2	White	10/60	3500	82	1100	10000	4.56"
		45065	† \$,1,2,3	CFL18/41/T2	Cool White	10/60	4100	82	1100	10000	4.56"
		46617	† \$,1,2,3	CFL18/41/T2/FS	Cool White Full Spiral	10/50	4100	82	1280	12000	4.33"
		45066	† \$,1,2,3	CFL18/50/T2	Natural White	10/60	5000	82	1100	10000	4.56"
		46618	† \$,1,2,3	CFL18/50/T2/FS	Natural White Full Spiral	10/50	5000	82	1280	12000	4.33"
T3	Med.	45120	★ † \$,1,2,3	CFL18/27	Warm White	10/50	2700	82	1200	12000	5.31"
		45122	† \$,1,2,3	CFL18/35	White	10/50	3500	82	1200	12000	5.31"
		45123	† \$,1,2,3	CFL18/41	Cool White	10/50	4100	82	1200	12000	5.31"
		45124	† \$,1,2,3	CFL18/50	Natural White	10/50	5000	82	1200	12000	5.31"
	GU24	46512	† \$,1,2,3	CFL18/27/GU24	Warm White GU24	10/60	2700	82	1200	10000	4.5"
		46520	† \$,1,2,3	CFL18/41/GU24	Cool White GU24	10/60	4100	82	1200	10000	4.5"
		46521	† \$,1,2,3	CFL18/50/GU24	Natural White GU24	10/60	5000	82	1200	10000	4.5"
<b>20 WATT</b>											
T3	Med.	109254	★ \$,1,2,3	CFL20/27	Warm White	10/50	2700	82	1200	12000	5.25"
		109332	\$,1,2,3	CFL20/35	White	10/50	3500	82	1200	12000	5.25"
		109263	\$,1,2,3	CFL20/41	Cool White	10/50	4100	82	1200	12000	5.25"
		109274	\$,1,2,3	CFL20/50	Natural White	10/50	5000	82	1200	12000	5.25"
<b>23 WATT</b>											
T2	Med.	46620	† \$,1,2,3	CFL23/27/T2/FS	Warm White Full Spiral	10/50	2700	82	1600	12000	4.65"
		46622	† \$,1,2,3	CFL23/41/T2/FS	Cool White Full Spiral	10/50	4100	82	1600	12000	4.65"
		46623	† \$,1,2,3	CFL23/50/T2/FS	Natural White Full Spiral	10/50	5000	82	1600	12000	4.65"
T3	Med.	45250	★ † \$,1,2,3	CFL23/27	Warm White	10/50	2700	82	1600	10000	5.13"
		45252	† \$,1,2,3	CFL23/35	White	10/50	3500	82	1600	10000	5.13"
		45253	† \$,1,2,3	CFL23/41	Cool White	10/50	4100	82	1600	10000	5.13"
		45254	† \$,1,2,3	CFL23/50	Natural White	10/50	5000	82	1600	10000	5.13"
	GU24	46518	† \$,1,2,3	CFL23/27/GU24	Warm White GU24	10/60	2700	82	1600	10000	5"
		46523	† \$,1,2,3	CFL23/41/GU24	Cool White GU24	10/60	4100	82	1600	10000	5"
		46524	† \$,1,2,3	CFL23/50/GU24	Natural White GU24	10/60	5000	82	1600	10000	5"
<b>24 WATT</b>											
T3	Med.	46326	† \$,1,3,9	CFL24/27/DIM	Warm White Dimmable	1/12	2700	82	1600	8000	4.75"
<b>26 WATT</b>											
T3	GU24	46528	† \$,1,2,3	CFL26/27/GU24	Warm White GU24	10/60	2700	82	1750	10000	5.2"
		46529	† \$,1,2,3	CFL26/41/GU24	Cool White GU24	10/60	4100	82	1750	10000	5.2"
		46530	† \$,1,2,3	CFL26/50/GU24	Natural White GU24	10/60	5000	82	1750	10000	5.2"

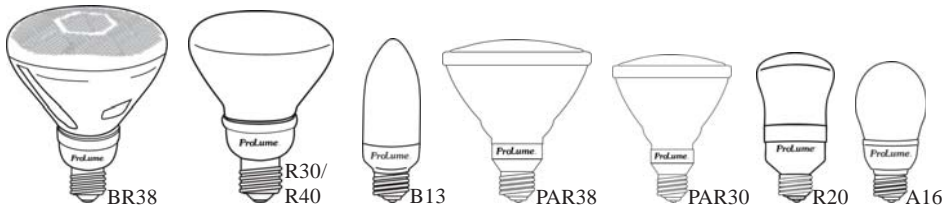
# Compact Fluorescent

## Self-Ballasted



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® CFL Bare Spiral (cont'd)</b>											
<b>27 WATT</b>											
T3	Med.	109310	★ † \$,1,2,3	<b>CFL27/27</b>	Warm White	10/50	2700	82	1750	10000	5.44"
		45255	† \$,1,2,3	<b>CFL27/35</b>	White	10/50	3500	82	1750	10000	5.44"
		109312	\$,1,2,3	<b>CFL27/41</b>	Cool White	10/50	4100	82	1750	10000	5.44"
		109314	\$,1,2,3	<b>CFL27/50</b>	Natural White	10/50	5000	82	1750	10000	5.44"
<b>32 WATT</b>											
T3	Med.	109316	★ \$,1,2,3	<b>CFL32/27</b>	Warm White	10/50	2700	82	2100	10000	5.56"
		109318	\$,1,2,3	<b>CFL32/41</b>	Cool White	10/50	4100	82	2100	10000	5.56"
		109306	\$,1,2,3	<b>CFL32/50</b>	Natural White	10/50	5000	82	2100	10000	5.56"
<b>42 WATT</b>											
T3	Med.	109328	★ † \$,1,2,3	<b>CFL42/27</b>	Warm White	1/24	2700	82	2800	8000	7.06"
		109336	† \$,1,2,3	<b>CFL42/41</b>	Cool White	1/24	4100	82	2800	8000	7.06"
		109338	† \$,1,2,3	<b>CFL42/50</b>	Natural White	1/24	5000	82	2800	8000	7.06"
<b>65 WATT</b>											
T5	Med.	45600	† \$,1,2,3	<b>CFL65/27</b>	Warm White	1/6	2700	82	3900	8000	10.63"
		45604	† \$,1,2,3	<b>CFL65/50</b>	Natural White	1/6	5000	82	3900	8000	10.63"
<b>85 WATT</b>											
T5	Med.	45606	† \$,1,2,3	<b>CFL85/27</b>	Warm White	1/6	2700	82	4800	8000	11.25"
		45610	† \$,1,2,3	<b>CFL85/50</b>	Natural White	1/6	5000	82	4800	8000	11.25"
<b>ProLume® CFL Reflector</b>											
<b>11 WATT</b>											
PAR20	Med.	46005	† \$,1,2,3	<b>CFL11/27/PAR20</b>	Warm White Flood	6/24	2700	82	380	10000	3.69"
		46006	† \$,1,2,3	<b>CFL11/35/PAR20</b>	White Flood	6/24	3500	82	380	10000	3.69"
		46007	† \$,1,2,3	<b>CFL11/41/PAR20</b>	Cool White Flood	6/24	4100	82	380	10000	3.69"
		46008	† \$,1,2,3	<b>CFL11/50/PAR20</b>	Natural White Flood	6/24	5000	82	380	10000	3.69"
<b>14 WATT</b>											
R20	Med.	46011	† \$,1,2,3	<b>CFL14/30/R20</b>	Soft White Flood	6/24	3000	82	500	8000	4.94"
		46014	† \$,1,2,3	<b>CFL14/50/R20</b>	Natural White Flood	6/24	5000	82	500	8000	4.94"
<b>15 WATT</b>											
R30	Med.	109056	x \$,1,2,3	<b>CFL15/BLU/R30</b>	Blue Flood	6/24	-	-	-	8000	5.12"
		109058	x \$,1,2,3	<b>CFL15/GRN/R30</b>	Green Flood	6/24	-	-	-	8000	5.12"
		109054	x \$,1,2,3	<b>CFL15/PNK/R30</b>	Pink Flood	6/24	-	-	-	8000	5.12"
		109062	x \$,1,2,3	<b>CFL15/YEL/R30</b>	Yellow Flood	6/24	-	-	-	8000	5.12"

Compact Fluorescents symbols, footnotes and abbreviations are located on page 36.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
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### ProLume® CFL Reflector (cont'd)

#### 15 WATT (cont'd)

R30	Med.	109056	x \$,1,2,3	<b>CFL15/BLU/R30</b>	Blue Flood	6/24	-	82	720	8000	5.12"
		109058	x \$,1,2,3	<b>CFL15/GRN/R30</b>	Green Flood	6/24	-	82	720	8000	5.12"
		109054	x \$,1,2,3	<b>CFL15/PNK/R30</b>	Pink Flood	6/24	-	82	720	8000	5.12"
		109062	x \$,1,2,3	<b>CFL15/YEL/R30</b>	Yellow Flood	6/24	-	82	720	8000	5.12"

#### 16 WATT

R20	Med.	46309	† \$,1,3,9	<b>CFL16/27/R20/DIM</b>	Warm White Dimmable Flood	1/12	2700	82	650	10000	5"
R30	Med.	46313	† \$,1,3,9	<b>CFL16/27/R30/DIM</b>	Warm White Dimmable Flood	6/24	2700	82	700	10000	5.38"
		46102	† \$,1,2,3	<b>CFL16/30/R30</b>	Soft White Flood	6/24	3000	82	750	8000	5.56"
		46104	† \$,1,2,3	<b>CFL16/41/R30</b>	Cool White Flood	6/24	4100	82	750	8000	5.56"
		46105	† \$,1,2,3	<b>CFL16/50/R30</b>	Natural White Flood	6/24	5000	82	750	8000	5.56"
		46106	† \$,1,2,3	<b>CFL16/50/R30/TF</b>	Silicone Coated Natural White Flood	6/24	5000	82	-	-	5.56"

#### 19 WATT

PAR30	Med.	46317	† \$,1,3,9	<b>CFL19/27/PAR30/DIM</b>	Warm White Dimmable Flood	6/24	2700	82	800	10000	5.13"
R40	Med.	46322	† \$,1,3,9	<b>CFL19/27/R40/DIM</b>	Warm Dimmable Flood	6/24	2700	82	900	10000	5.5"

#### 23 WATT

BR38	Med.	109216	\$,1,2,3	<b>CFL23/30/BR38</b>	Soft White Flood	6/24	3000	82	1200	8000	6.38"
PAR38	Med.	46201	† \$,1,2,3	<b>CFL23/27/PAR38</b>	Warm White Flood	6/24	2700	82	1200	10000	5.06"
		46202	† \$,1,2,3	<b>CFL23/35/PAR38</b>	White Flood	6/24	3500	82	1200	10000	5.06"
		46203	† \$,1,2,3	<b>CFL23/41/PAR38</b>	Cool White Flood	6/24	4100	82	1200	10000	5.06"
		46204	† \$,1,2,3	<b>CFL23/50/PAR38</b>	Natural White Flood	6/24	5000	82	1200	10000	5.06"
R40	Med.	109286	\$,1,2,3	<b>CFL23/30/R40</b>	Soft White Flood	6/24	3000	82	1300	8000	6.38"
		46206	† \$,1,2,3	<b>CFL23/50/R40</b>	Natural White Flood	6/24	5000	82	1300	8000	6.38"

### ProLume® CFL Decorative

#### 5 WATT

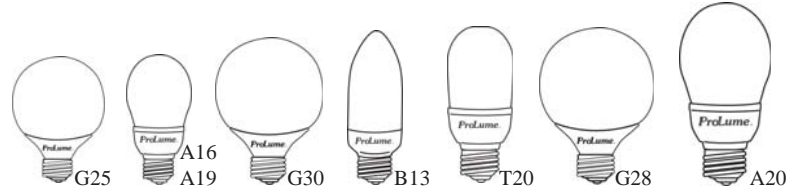
A16	Med.	45730	† \$,1,2,3	<b>CFL5/27/A16</b>	Warm White	10/50	2700	82	250	8000	4.07"
		45732	† \$,1,2,3	<b>CFL5/41/A16</b>	Cool White	10/50	4100	82	235	8000	4.07"
B13	Cand.	109002	\$,1,2,3	<b>CFL5CE/30/E12</b>	Soft White	10/50	3000	82	200	8000	5.12"
	Med.	109006	\$,1,2,3	<b>CFL5CE/30/E26</b>	Soft White	10/50	3000	82	200	8000	5.12"

#### 7 WATT

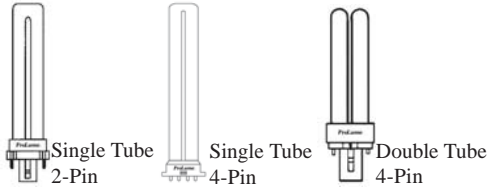
B13	Cand.	109004	x \$,1,2,3	<b>CFL7CE/30/E12</b>	Soft White	10/50	3000	82	-	8000	5.25"
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# Compact Fluorescent

## Self-Ballasted



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® CFL Decorative (cont'd)</b>											
<b>9 WATT</b>											
A16	Med.	45734	† \$,1,2,3	<b>CFL9/27/A16</b>	Warm White	10/50	2700	82	470	8000	4.5"
		45736	† \$,1,2,3	<b>CFL9/41/A16</b>	Cool White	10/50	4100	82	450	8000	4.5"
B13	Cand.	45750	† \$,1,2,3	<b>CFL9CE/30/E12</b>	Soft White	10/50	3000	82	470	8000	5.19"
	Med.	45751	† \$,1,2,3	<b>CFL9CE/30/E26</b>	Soft White	10/50	3000	82	470	8000	5.19"
G25	Med.	45701	★ † \$,1,2,3	<b>CFL9/27/G25</b>	Warm White	6/24	2700	82	500	10000	4.38"
		45705	† \$,1,2,3	<b>CFL9/50/G25</b>	Natural White	6/24	5000	82	500	10000	4.38"
<b>13 WATT</b>											
E19	Med.	109228	x \$,1,2,3	<b>CFL13/30/E19</b>	Soft White	10/50	3000	82	600	8000	4.94"
<b>14 WATT</b>											
A19	Med.	45738	† \$,1,2,3	<b>CFL14/27/A19</b>	Warm White	10/50	2700	82	800	8000	4.94"
		45739	† \$,1,2,3	<b>CFL14/35/A19</b>	White	10/50	3500	82	800	8000	4.94"
		45740	† \$,1,2,3	<b>CFL14/41/A19</b>	Cool White	10/50	4100	82	800	8000	4.94"
		45741	† \$,1,2,3	<b>CFL14/50/A19</b>	Natural White	10/50	5000	82	800	8000	4.94"
		46305	† \$,1,3,9	<b>CFL14/27/A19/DIM</b>	Warm White Dimmable	12/72	2700	82	800	10000	4.75"
		45759	† \$,1,2,3	<b>CFL14/YEL/A19</b>	Yellow	10/50	-	-	-	8000	4.94"
T20	Med.	45755	† \$,1,2,3	<b>CFL14/27/T20</b>	Warm White	6/24	2700	82	800	8000	5.44"
		45758	† \$,1,2,3	<b>CFL14/50/T20</b>	Natural White	6/24	5000	82	800	8000	5.44"
<b>15 WATT</b>											
G28	Med.	45713	★ † \$,1,2,3	<b>CFL15/27/G28</b>	Warm White	6/24	2700	82	720	10000	5.44"
		45717	† \$,1,2,3	<b>CFL15/50/G28</b>	Natural White	6/24	5000	82	720	10000	5.44"
<b>16 WATT</b>											
G30	Med.	45725	† \$,1,2,3	<b>CFL16/27/G30</b>	Warm White	6/24	2700	82	900	8000	5.07"
		46533	† \$,1,2,3	<b>CFL16/50/G30</b>	Natural White	6/24	5000	82	900	8000	5.07"
<b>20 WATT</b>											
A20	Med.	45743	† \$,1,2,3	<b>CFL20/27/A20</b>	Warm White	6/24	2700	82	1100	8000	5.56"
		45745	† \$,1,2,3	<b>CFL20/41/A20</b>	Cool White	6/24	4100	82	1100	8000	5.56"



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
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### ProLume® Single Tube 2-Pin Eco-Shield®

#### 5 WATT

T4	G23	109100	♥ \$,4,5	PL5S/27/ECO	Warm White	1/50	2700	82	250	10000	4.25"
		109102	♥ \$,4,5	PL5S/41/ECO	Cool White	1/50	4100	82	250	10000	4.25"

#### 7 WATT

T4	G23	109106	♥ \$,5	PL7S/27/ECO	Warm White	1/50	2700	82	400	10000	5.43"
		109107	♥ \$,5	PL7S/35/ECO	White	1/50	3500	82	400	10000	5.43"
		109108	♥ \$,5	PL7S/41/ECO	Cool White	1/50	4100	82	400	10000	5.43"

#### 9 WATT

T4	G23	109112	♥ \$,5	PL9S/27/ECO	Warm White	1/50	2700	82	600	10000	6.61"
		109144	♥ \$,5	PL9S/35/ECO	White	1/50	3500	82	600	10000	6.61"
		109116	♥ \$,5	PL9S/41/ECO	Cool White	1/50	4100	82	600	10000	6.61"
		109118	♥ \$,5	PL9S/50/ECO	Natural White	1/50	5000	82	600	10000	6.61"

#### 13 WATT

T4	GX23	109126	♥ \$,5	PL13S/27/ECO	Warm White	1/50	2700	82	825	10000	7.2"
		109128	♥ \$,5	PL13S/35/ECO	White	1/50	3500	82	825	10000	7.2"
		109130	♥ \$,5	PL13S/41/ECO	Cool White	1/50	4100	82	825	10000	7.2"
		109132	♥ \$,5	PL13S/50/ECO	Natural White	1/50	5000	82	825	10000	7.2"

### ProLume® Single Tube 4-Pin Electronic Eco-Shield®

#### 13 WATT

T4	2GX7	109134	♥ \$,6,7	PL13S/E/27/ECO	Warm White EOL	1/50	2700	82	825	10000	6.3"
		109136	♥ \$,6,7	PL13S/E/35/ECO	White EOL	1/50	3500	82	825	10000	6.3"
		109138	♥ \$,6,7	PL13S/E/41/ECO	Cool White EOL	1/50	4100	82	825	10000	6.3"
		109140	♥ \$,6,7	PL13S/E/50/ECO	Natural White EOL	1/50	5000	82	825	10000	6.3"

### ProLume® Double Tube 2-Pin

#### 9 WATT

T4	G23-2	109110	♥ \$,5	PL9D/27/ECO	Warm White Eco-Shield®	1/50	2700	82	525	10000	4.25"
		109120	♥ \$,5	PL9D/41/ECO	Cool White Eco-Shield®	1/50	4100	82	525	10000	4.25"

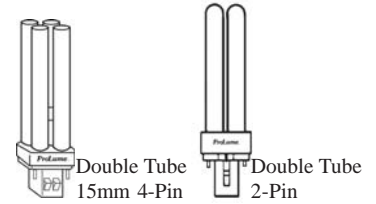
#### 13 WATT

T4	GX23-2	109146	♥ \$,5	PL13D/27/ECO	Warm White Eco-Shield®	1/50	2700	82	900	10000	4.65"
		109148	♥ \$,5	PL13D/35/ECO	White Eco-Shield®	1/50	3500	82	900	10000	4.65"
		109150	♥ \$,5	PL13D/41/ECO	Cool White Eco-Shield®	1/50	4100	82	900	10000	4.65"
		109149	♥ \$,5	PL13D/50/ECO	Natural White Eco-Shield®	1/50	5000	82	780	10000	4.65"

#### 18 WATT

T4	G24d-2	109152	♥ \$,5	PL18D/27/ECO	Warm White Eco-Shield®	1/50	2700	82	1200	10000	6.02"
		109154	♥ \$,5	PL18D/35/ECO	White Eco-Shield®	1/50	3500	82	1200	10000	6.02"

## Plug-In



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® Double Tube 2-Pin (cont'd)</b>											
<b>18 WATT (cont'd)</b>											
T4	G24d-2	109156	▼ \$,5	PL18D/41/ECO	Cool White Eco-Shield®	1/50	4100	82	1200	10000	6.02"
		109159	▼ \$,5	PL18D/50/ECO	Natural White Eco-Shield®	1/50	5000	82	1200	10000	6.02"
<b>22 WATT</b>											
T5	GX32d-2	109862	† \$,5	PL22D/28	Warm White 15mm Cluster	1/50	2800	82	1200	10000	6.0"
		109864	† \$,5	PL22D/50	Natural White 15mm Cluster	1/50	5000	82	1200	10000	6.0"
<b>26 WATT</b>											
T5	GX32d-3	109158	▼ \$,5	PL26D/27/ECO	Warm White Eco-Shield®	1/50	2700	82	1200	10000	6.77"
		109160	▼ \$,5	PL26D/35/ECO	White Eco-Shield®	1/50	3500	82	1200	10000	6.77"
		109162	▼ \$,5	PL26D/41/ECO	Cool White Eco-Shield®	1/50	4100	82	1200	10000	6.77"
		109163	▼ \$,5	PL26D/50/ECO	Natural White Eco-Shield®	1/50	5000	82	1200	10000	6.77"
<b>28 WATT</b>											
T5	GX32d-3	109870	† \$,5	PL28D/28	Warm White 15mm Cluster	1/50	2800	82	1800	10000	6.8"
		109868	† \$,5	PL28D/50	Natural White 15mm Cluster	1/50	5000	82	1800	10000	6.8"
<b>ProLume® Double Tube 4-Pin Electronic Eco-Shield®</b>											
<b>13 WATT</b>											
T4	G24q-1	109037	▼ \$,6,7	PL13D/E/27/ECO	Warm White EOL	1/50	2700	82	900	10000	5.16"
		109035	▼ \$,6,7	PL13D/E/30/ECO	Soft White EOL	1/50	3000	82	900	10000	5.16"
		109038	▼ \$,6,7	PL13D/E/35/ECO	White EOL	1/50	3500	82	900	10000	5.16"
		109039	▼ \$,6,7	PL13D/E/41/ECO	Cool White EOL	1/50	4100	82	900	10000	5.16"
		109122	▼ \$,6,7	PL13D/E/50/ECO	Natural White EOL	1/50	5000	82	900	10000	5.16"
<b>18 WATT</b>											
T4	G24q-2	109010	▼ \$,6,7	PL18D/E/27/ECO	Warm White EOL	1/50	2700	82	1200	10000	5.75"
		109012	▼ \$,6,7	PL18D/E/35/ECO	White EOL	1/50	3500	82	1200	10000	5.75"
		109013	▼ \$,6,7	PL18D/E/41/ECO	Cool White EOL	1/50	4100	82	1200	10000	5.75"
		109074	▼ \$,6,7	PL18D/E/50/ECO	Natural White EOL	1/50	5000	82	1200	10000	5.75"
<b>26 WATT</b>											
T4	G24q-3	109090	▼ \$,6,7	PL26D/E/27/ECO	Warm White EOL	1/50	2700	82	1800	10000	6.48"
		109092	▼ \$,6,7	PL26D/E/35/ECO	White EOL	1/50	3500	82	1800	10000	6.48"
		109094	▼ \$,6,7	PL26D/E/41/ECO	Cool White EOL	1/50	4100	82	1800	10000	6.48"
		109096	▼ \$,6,7	PL26D/E/50/ECO	Natural White EOL	1/50	5000	82	1800	10000	6.48"



R40  
Plug-In



Triple Tube  
4-Pin



Spiral  
Plug-In

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
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### ProLume® Triple Tube 4-Pin Electronic Eco-Shield® (cont'd)

#### 18 WATT

T4	GX24q-2	44800	† \$,6,7	PL18T/E/27/ECO	Warm White EOL	1/50	2700	82	1200	10000	4.57"
		44801	† \$,6,7	PL18T/E/35/ECO	White EOL	1/50	3500	82	1200	10000	4.57"
		44803	† \$,6,7	PL18T/E/41/ECO	Cool White EOL	1/50	4100	82	1200	10000	4.57"
		44804	† \$,6,7	PL18T/E/50/ECO	Natural White EOL	1/50	5000	82	1200	10000	4.57"

#### 26 WATT

T4	GX24q-3	109020	\$,6,7	PL26T/E/27/ECO	Warm White EOL	1/50	2700	82	1800	10000	5.28"
		109022	\$,6,7	PL26T/E/35/ECO	White EOL	1/50	3500	82	1800	10000	5.28"
		109024	\$,6,7	PL26T/E/41/ECO	Cool White EOL	1/50	4100	82	1800	10000	5.28"
		109076	\$,6,7	PL26T/E/50/ECO	Natural White EOL	1/50	5000	82	1800	10000	5.28"

#### 32 WATT

T4	GX24q-3	109026	\$,6,7	PL32T/E/27/ECO	Warm White EOL	1/50	2700	82	2400	10000	5.79"
		109028	\$,6,7	PL32T/E/35/ECO	White EOL	1/50	3500	82	2400	10000	5.79"
		109030	\$,6,7	PL32T/E/41/ECO	Cool White EOL	1/50	4100	82	2400	10000	5.79"
		109070	\$,6,7	PL32T/E/50/ECO	Natural White EOL	1/50	5000	82	2400	10000	5.79"

#### 42 WATT

T4	GX24q-4	109032	\$,6,7	PL42T/E/27/ECO	Warm White EOL	1/50	2700	82	3200	10000	6.61"
		109034	\$,6,7	PL42T/E/35/ECO	White EOL	1/50	3500	82	3200	10000	6.61"
		109036	\$,6,7	PL42T/E/41/ECO	Cool White EOL	1/50	4100	82	3200	10000	6.61"
		109072	\$,6,7	PL42T/E/50/ECO	Natural White EOL	1/50	5000	82	3200	10000	6.61"

#### 57 WATT

T4	GX24q-5	44806	\$,6,7	PL57T/E/27/ECO	Warm White EOL	1/50	2700	82	4200	10000	7.8"
		44807	\$,6,7	PL57T/E/41/ECO	Cool White EOL	1/50	4100	82	4200	10000	7.8"
		44808	\$,6,7	PL57T/E/50/ECO	Natural White EOL	1/50	5000	82	4200	10000	7.8"

### ProLume® Spiral Electronic 4-Pin

#### 13 WATT

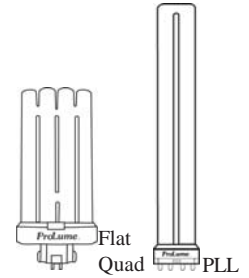
T4	GX24q-1	109692	\$,6,7	PL13SP/E/27	Warm White	1/50	2700	81	900	10000	3.5"
		109694	\$,6,7	PL13SP/E/41	Cool White	1/50	4100	81	900	10000	3.5"

#### 26 WATT

R40	G24q-3	109382	\$,6,7	PL26/R40/E/30	Soft White Flood	6/24	3000	82	1450	8000	6.12"
		109388	\$,6,7	PL26/R40/E/50	Natural White Flood	6/24	5000	82	1450	8000	6.12"
T3	G24q-3	109696	\$,6,7	PL26SP/E/27	Warm White	10/50	2700	82	1600	10000	4.1"
		109698	\$,6,7	PL26SP/E/41	Cool White	10/50	4100	82	1600	10000	4.1"

# Compact Fluorescent

## Plug-In

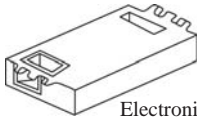


Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Lumens	Avg. Life	MOL
<b>ProLume® High Lumen Long 4-Pin</b>											
<b>18 WATT</b>											
T5	2G11	109722	\$,7	PLL18/830	Soft White	10/40	3000	82	1150	10000	8.9"
		109700	\$,7	PLL18/835	White	10/40	3500	82	1150	10000	8.9"
		109702	\$,7	PLL18/841	Cool White	10/40	4100	82	1150	10000	8.9"
<b>24 WATT</b>											
T5	2G11	109724	\$,7	PLL24/830	Soft White	10/40	3000	82	1650	10000	12.7"
		109704	\$,7	PLL24/835	White	10/40	3500	82	1650	10000	12.7"
		109706	\$,7	PLL24/841	Cool White	10/40	4100	82	1650	10000	12.7"
<b>36 WATT</b>											
T5	2G11	109726	\$,7	PLL36/830	Soft White	10/40	3000	82	2500	10000	16.4"
		109708	\$,7	PLL36/835	White	10/40	3500	82	2500	10000	16.4"
		109710	\$,7	PLL36/841	Cool White	10/40	4100	82	2500	10000	16.4"
<b>40 WATT</b>											
T5	2G11	109712	\$,7	PLL40/830/RS	Soft White	10/40	3000	84	2910	18000	22.5"
		109714	\$,7	PLL40/835/RS	White	10/40	3500	82	2910	18000	22.5"
		109716	\$,7	PLL40/841/RS	Cool White	10/40	4100	82	2910	18000	22.5"
		44900	†\$,7	PLL40/850/RS	Natural White	10/40	5000	80	2850	18000	22.5"
<b>55 WATT</b>											
T5	2G11	109718	\$,7	PLL55/835	White	10/40	3500	82	3700	10000	21.2"
		109720	\$,7	PLL55/841	Cool White	10/40	4100	82	3700	10000	21.2"
<b>ProLume® Flat Quad 4-Pin Electronic</b>											
<b>27 WATT</b>											
T5	GX10q-2	109238	\$,6,7	FML27/NDL	Natural White	1/50	5000	81	1700	8000	5.9"

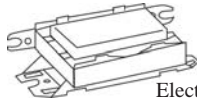




GU24  
Adapter



Electronic Kit

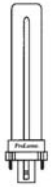


Electromagnetic

Product Number	Product Code	Description	Voltage	Start Type	Pkg Qty
<b>ProLume® Ballasts</b>					
<b>Electronic GU24 Adapters</b>					
52200	E1CF13RS/120/GU24	PL13 4-Pin to GU24 Adapter	120	Rapid Start	1/10
52201	E1CF18RS/120/GU24	PL18 4-Pin to GU24 Adapter	120	Rapid Start	1/10
52202	E1CF26RS/120/GU24	PL26 4-Pin to GU24 Adapter	120	Rapid Start	1/10
<b>ProFormance Electronic</b>					
52102	EP2CF13PS/MV/DC/K	13W CFL 2 Lamp MV Kit	120-277	Programmed Start	1/20
52104	EP2CF18PS/MV/DC/K	18W CFL 2 Lamp MV Kit	120-277	Programmed Start	1/20
52106	EP2CF26PS/MV/DC/K	26W CFL 2 Lamp MV Kit	120-277	Programmed Start	1/20
52110	EP2CF42RS/MV/DC/K	42W CFL 2 Lamp MV Kit	120-277	Rapid Start	1/20
<b>Electromagnetic</b>					
53104	M1CF9PH/120	9W CFL 1 Lamp	120	Pre-Heat	1/40
53102	M1CF13PH/120	13W CFL 1 Lamp	120	Pre-Heat	1/40

## Bulb and Base Identification Guide

### BULB SHAPES



Single Tube  
2-Pin



Single Tube  
4-Pin



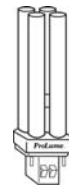
Double Tube  
2-Pin/4-Pin



Triple Tube  
4-Pin



Flat Quad  
4-Pin



Double  
15mm



PLL  
4-Pin



BR38



R20



R30



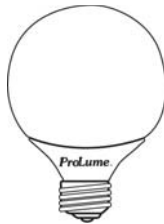
R40



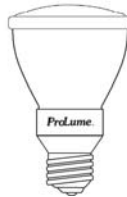
R40 Plug-In



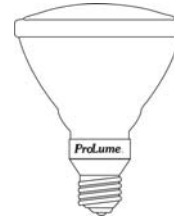
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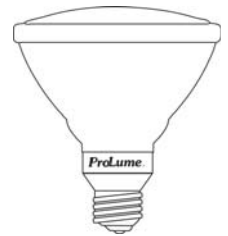
G  
Globe



PAR20



PAR30



PAR38



B13



GU24



Spiral

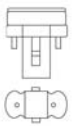


Spiral Plug-In



T20

### BASE TYPES



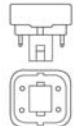
G23



GX23



GX23-2



G24q-1



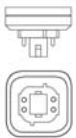
G24q-2



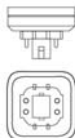
G24q-3



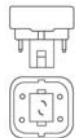
G24d-2



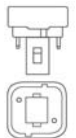
GX24q-3



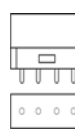
GX24q-4



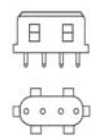
GX24q-5



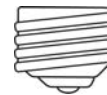
GX25d-3



2G11



2GX7



Medium  
E26/27




E12

HALCO	GE.	PHILIPS	OSRAM/SYLVANIA
<b>Single Tube 2-Pin</b>			
PL5S/27/ECO	F5BX/827/ECO	PL-S 5W/827/2P/ALTO	CF5DS/827
PL5S/41/ECO	F5BX/841/ECO	PL-S 5W/841/2P/ALTO	CF5DS/841
PL7S/27/ECO	F7BX/827/ECO	PL-S 7W/827/2P/ALTO	CF7DS/827
PL7S/35/ECO	F7BX/835/ECO	PL-S 7W/835/2P/ALTO	CF7DS/835
PL7S/41/ECO	F7BX/841/ECO	PL-S 7W/841/2P/ALTO	CF7DS/841
PL9S/27/ECO	F9BX/827/ECO	PL-S 9W/827/2P/ALTO	CF9DS/827
PL9S/35/ECO	F9BX//835/ECO	PL-S 9W/835/2P/ALTO	CF9DS/835
PL9S/41/ECO	F9BX/841/ECO	PL-S 9W/841/2P/ALTO	CF9DS/841
PL9S/50/ECO	-	PL-S 9W/850/2P/ALTO	CF9DS/850
PL13S/27/ECO	F13BX/827/ECO	PL-S 13W/827/2P/ALTO	CF13DS/827
PL13S/35/ECO	F13BX/835/ECO	PL-S 13W/835/2P/ALTO	CF13DS/835
PL13S/41/ECO	F13BX/841/ECO	PL-S 13W/841/2P/ALTO	CF13DS/841
PL13S/50/ECO	F13BX/850/ECO	PL-S 13W/850/2P/ALTO	CF13DS/850
<b>Double Tube 2-Pin</b>			
PL9D/27/ECO	F9DBX23/827/ECO	-	CF9DD/827
PL9D/41/ECO	F9DBX23/841/ECO	-	CF9DD/841
PL13D/27/ECO	F13DBX23/827/ECO	PL-C 13W/827/USA/ALTO	CF13DD/827
PL13D/35/ECO	F13DBX23/835/ECO	PL-C 13W/835/USA/ALTO	CF13DD/835
PL13D/41/ECO	F13DBX23/841/ECO	PL-C 13W/841/USA/ALTO	CF13DD/841
PL13D/50/ECO	F13DBX23/850/ECO	-	-
PL18D/27/ECO	F18DBX/827/ECO	PL-C 18W/827/ALTO	CF18DD/827
PL18D/35/ECO	F18DBX/835/ECO	PL-C 18W/835/ALTO	CF18DD/835
PL18D/41/ECO	F18DBX/841/ECO	PL-C 18W/841/ALTO	CF18DD/841
PL18D/50/ECO	-	-	-
PL26D/27/ECO	F26DBX/827/ECO	PL-C 26W/827/ALTO	CF26DD/827
PL26D/35/ECO	F26DBX/835/ECO	PL-C 26W/835/ALTO	CF26DD/835
PL26D/41/ECO	F26DBX/841/ECO	PL-C 26W/841/ALTO	CF26DD/841
PL26D/50/ECO	-	-	-
PL22D/28	-	PL-C 15MM/22W/827	-
PL22D/50	-	-	-
PL28D/28	-	PL-C 15MM/28W/827	-
PL28D/50	-	-	-
<b>Single Tube Electronic 4-Pin</b>			
PL13S/E/27/ECO	-	-	CF13DS/E/827
PL13S/E/35/ECO	-	-	-
PL13S/E/41/ECO	-	-	CF13DS/E/841
PL13S/E/50/ECO	-	-	-

HALCO	GE.	PHILIPS	OSRAM/SYLVANIA
<b>Double Tube Electronic 4-Pin</b>			
PL13D/E/27/ECO	F13DBX/827/ECO4P	PL-C 13W/827/4P/ALTO	CF13DD/E/827
PL13D/E/30/ECO	F13DBX/830/ECO4P	PL-C 13W/830/4P/ALTO	CF13DD/E/830
PL13D/E/35/ECO	F13DBX/835/ECO4P	PL-C 13W/835/4P/ALTO	CF13DD/E/835
PL13D/E/41/ECO	F13DBX/841/ECO4P	PL-C 13W/841/4P/ALTO	CF13DD/E/841
PL13D/E/50/ECO	-	-	-
PL18D/E/27/ECO	F18DBX/827/ECO4P	PL-C 18W/827/4P/ALTO	CF18DD/E/827
PL18D/E/35/ECO	F18DBX/835/ECO4P	PL-C 18W/835/4P/ALTO	CF18DD/E/835
PL18D/E/41/ECO	F18DBX/841/ECO4P	PL-C 18W/841/4P/ALTO	CF18DD/E/841
PL18D/E/50/ECO	-	-	-
PL26D/E/27/ECO	F26DBX/827/ECO4P	PL-C 26W/827/4P/ALTO	CF26DD/E/827
PL26D/E/35/ECO	F26DBX/835/ECO4P	PL-C 26W/835/4P/ALTO	CF26DD/E/835
PL26D/E/41/ECO	F26DBX/841/ECO4P	PL-C 26W/841/4P/ALTO	CF26DD/E/841
PL26D/E/50/ECO	-	-	-
<b>Triple Tube Electronic 4-Pin</b>			
PL18T/E/27/ECO	F18TBX/827/A/ECO	PL-T 18W/827/4P/ALTO	CF18DT/E/IN/827
PL18T/E/35/ECO	F18TBX/835/A/ECO	PL-T 18W/835/4P/ALTO	CF18DT/E/IN/835
PL18T/E/41/ECO	F18TBX/841/A/ECO	PL-T 18W/841/4P/ALTO	CF18DT/E/IN/841
PL18T/E/50/ECO	-	-	-
PL26T/E/27/ECO	F26TBX/827/A/ECO	PL-T 26W/827/4P/ALTO	CF26DT/E/IN/827
PL26T/E/35/ECO	F26TBX/835/A/ECO	PL-T 26W/835/4P/ALTO	CF26DT/E/IN/835
PL26T/E/41/ECO	F26TBX/841/A/ECO	FL-T 26W/841/4P/ALTO	CF26DT/E/IN/841
PL26T/E/50/ECO	-	-	-
PL32T/E/27/ECO	F32TBX/827/A/ECO	PL-T 32W/827/4P/ALTO	CF32DT/E/IN/827
PL32T/E/35/ECO	F32TBX/835/A/ECO	PL-T 32W/835/4P/ALTO	CF32DT/E/IN/835
PL32T/E/41/ECO	F32TBX/841/A/ECO	PL-T 32W/841/4P/ALTO	CF32DT/E/IN/841
PL32T/E/50/ECO	-	-	-
PL42T/E/27/ECO	F42TBX/827/A/ECO	PL-T 42W/827/4P/ALTO	CF42DT/E/IN/827
PL42T/E/35/ECO	F42TBX/835/A/ECO	PL-T 42W/835/4P/ALTO	CF42DT/E/IN/835
PL42T/E/41/ECO	F42TBX/841/A/ECO	PL-T 42W/841/4P/ALTO	CF42DT/E/IN/841
PL42T/E/50/ECO	-	-	-
PL57T/E/27/ECO	F57QBX/827/A/ECO	-	CF57DT/E/IN/827
PL57T/E/41/ECO	F57QBX/841/A/ECO	PL-T 57W/841/4P/A	CF57DT/E/IN/841
PL57T/E/50/ECO	F57QBX/850/A/ECO	-	CF57DT/E/IN/850
<b>High Lumen Long 4-Pin</b>			
PLL18/830	F18BX/SPX30	PL-L 18W/830/4P	FT18DL/830/RS
PLL18/835	F18BX/SPX35	PL-L 18W/835/4P	FT18DL/835/RS
PLL18/841	F18BX/SPX41	PL-L 18W/841/4P	FT18DL/841/RS
PLL24/830	F27BX/SPX30/RS	PL-L 24W/830/4P	FT24DL/830
PLL24/835	F27BX/SPX35/RS	PL-L 24W/835/4P	FT24DL/835

HALCO	GE.	PHILIPS	OSRAM/SYLVANIA
<b>High Lumen Long 4-Pin (cont'd)</b>			
PLL24/841	F27BX/SPX41/RS	PL-L 24W/841/4P	FT24DL/841
PLL36/830	F39BX/SPX30/RS	PL-L 36W/830/4P	FT36DL/830
PLL36/835	F39BX/SPX35/RS	PL-L 36W/835/4P	FT36DL/835
PLL36/841	F39BX/SPX41/RS	PL-L 36W/841/4P	FT36DL/841
PLL40/830/RS	F40/30BX/SPX30	PL-L 40W/830/4P/RS/IS	FT40DL/830/RS
PLL40/835/RS	F40/30BX/SPX35	PL-L 40W/835/4P/RS/IS	FT40DL/835/RS
PLL40/841/RS	F40/30BX/SPX41	PL-L 40W/841/4P/RS/IS	FT40DL/841/RS
PLL40/850/RS	F40/30BX/SPX50	-	FT40DL/850/RS
PLL55/835	F55BX/835	PL-L 50W/835/4P/RS	FT55DL/835
PLL55/841	F55BX/840	PL-L 50W/841/4P/RS	FT55DL/841

## Symbols, Footnotes and Abbreviations

SYMBOLS		ABBREVIATIONS	
†	New product introduced within the past year.	/27	Suffix used to indicate color temperature of 2700K.
\$	Energy saving product.	/30	Suffix used to indicate color temperature of 3000K.
★	Energy Star Rated product.	/35	Suffix used to indicate color temperature of 3500K.
	ProLume Eco-Shield® Low Mercury Fluorescent lamps pass the Federal TCLP for hazardous wastes.	/3WAY	Suffix used to indicate 3 way lamps.
x	Product will be discontinued when inventory is depleted.	/41	Suffix used to indicate color temperature of 4100K.
FOOTNOTES		/50	Suffix used to indicate color temperature of 5000K.
1	Outdoor use requires weather-protected fixture. All self-ballasted lamps meet part 18 of the FCC rules. These products may cause interference with AM radios, cordless telephones, and remote control devices. If interference continues, move the lamp away from the device or plug into a different outlet.	/65	Suffix used to indicate color temperature of 6500K.
2	All ProLume self-ballasted lamps have an electronic ballast and are designed for 120-volt operation. Lamps operated at a higher voltage or in recessed or enclosed fixtures will have reduced life. Do not use with dimmers. Before using with photocell or electronic timing devices, check device for compatibility with compact fluorescent lamps. Use with incompatible devices will result in premature lamp failure. These products are UL Listed.	BLB	Code abbreviation for blacklight-blue lamps.
3	Use base down. Not recommended for use in recessed cans or totally enclosed fixtures.	BLU	Code abbreviation for blue Lamps.
4	PL 5 watt lamps should not be used in socket or adapters rated for 7 watt or 9 watt lamps.	CF	Code abbreviation for compact fluorescent ballasts.
5	Total wattage consumption for adapter systems is higher than lamp wattage due to ballast losses. Total system wattage equals lamp wattage plus 2 ballast watts.	CFL	Code abbreviation for ProLume® self-ballasted compact fluorescent lamps.
6	This 4-Pin Electronic lamp has an internal end of life (EOL) mechanism that shuts the lamp down to prevent abnormal end-of-life failure.	D	Code abbreviation for double tube lamps.
7	Operate this lamp on a high-frequency compact fluorescent ballast with an end-of-life shut down circuit.	DC	Suffix used to indicate compact fluorescent ballast with dual connection lead exits.
8	For three-way operation, must be used in a three-way socket.	/DIM	Suffix used to indicate dimmable lamps.
9	Dimmable lamps are for use on analog dimmers only. Dimmable down to 10% of input power. Do not leave lamp in unstable state. Do not use in emergency exit sign fixture. Do not use dimming as a method of turning off the lamp. These products are UL Listed.	/E	Code abbreviation for electronic 4-Pin plug-in lamps.
		/ECO	Suffix used to indicate Eco-Shield® TCLP compliant lamps.
		EP	Code abbreviation for ProLume® ProFormance® electronic ballasts.
		/FS	Suffix used to indicate full spiral designed self-ballasted compact fluorescent lamps.
		GRN	Code abbreviation for green lamps.
		/IS	Suffix used to indicate instant start lamps.
		K	Suffix used to indicate a ballast replacement kit.
		M	Code abbreviation for ProLume® electromagnetic ballasts.
		/MV	Suffix used to indicate multi-volt (120-277) ballasts.
		PL	Code abbreviation for ProLume® plug-in compact fluorescent lamps.
		PLL	Code abbreviation for ProLume® plug-in high lumen long lamps.
		PH	Code abbreviation for preheat start ballasts.
		PNK	Code abbreviation for pink lamps.
		PS	Code abbreviation for programmed start ballasts.
		RS	Code abbreviation for rapid start ballasts and lamps.
		S	Code abbreviation for single tube plug-in lamps.
		SP	Code abbreviation for spiral tube plug-in lamps.
		T	Code abbreviation for triple tube plug-in lamps.
		/TF	Suffix used to indicate tuff skin lamps with a silicone coating.
		YEL	Code abbreviation for yellow lamps.

# halogen



## Contents

How to read a table

PAR Lamps

AR111

Double Envelope

MR8, MR11, MR16

JC and JCD Type

Double Ended J Type

Single Ended JD Type

Bulb, Base and Filament Identification

Symbols, Footnotes and Abbreviations

# how to read a table

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	CBCP	Avg. Life	Design Filament	MOL	Beam Spread
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**BULB** Designations indicate shape and/or tube size. Illustrations can be found on page 86 and at the top of each page.

**BASE** Indicates base type. Full base descriptions and illustrations can be found on page 86.

**PRODUCT CODE** Abbreviated product description can also be used for ordering. A key to abbreviations can be found on page 87.

**PACKAGE QUANTITY** Indicates minimum sell quantity and smallest shipping carton.

**DESIGN FILAMENT** Filament types are illustrated on page 86.

**VOLTS** Indicates the product's design voltage of operation.

**MOL** Indicates maximum overall length in inches.

## PRISM® PAR Lamps

### 20 WATT

PAR36	Screw Term.	107788	\$,1,2,7	HP36NSP20/HX	Narrow Spot HaloXen®	12	12	260	1900	5000	C-6	2.75"	12
		107790	\$,1,2,7	HP36VNSP20/HX	Very Narrow Spot HaloXen®	12	12	260	9000	5000	C-6	2.75"	5
		107792	\$,1,2,7	HP36WFL20/HX	Wide Flood HaloXen®	12	12	260	530	5000	C-6	2.75"	32

### 35 WATT

PAR14	Med.	107548	N\$,1,7,8	HP14FL35	Flood	10/40	130	300	400	3000	CC-8	2.44"	50
PAR20	Med.	107610	N\$,1,7,8	HP20NFL35	Narrow Flood	15	130	450	700	3000	CC-8	3.23"	30

**WATTS**  
Indicates the power consumed by the lamp during operation.

### FOOTNOTES & SYMBOLS

Related footnotes can be found on page 87.

### DESCRIPTION

Beam spread description or other important information.

### AVERAGE LIFE

Average rated life expressed in hours.

**CBCP** The luminous intensity at the center of the beam of a reflector lamp.

### PRODUCT NUMBER

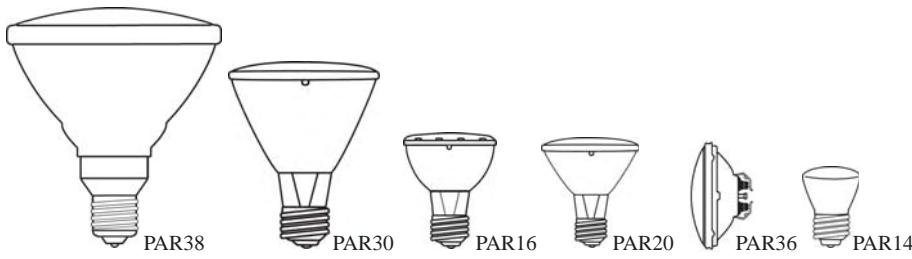
Use this product number when placing an order.

**LUMENS** Represents average light output.

### BEAM SPREAD

Indicates the beam angle or beam spread of a bulb, measured in degrees.





Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	CBCP	Avg. Life	Design Filament	MOL	Beam Spread
------	------	----------------	-----------	--------------	-------------	---------	-------	--------	------	-----------	-----------------	-----	-------------

## PRISM® PAR Lamps

### 20 WATT

PAR36	Screw Term.	107788	\$,1,2,7	HP36NSP20/HX	Narrow Spot HaloXen®	12	12	260	1900	5000	C-6	2.75"	12
		107790	\$,1,2,7	HP36VNSP20/HX	Very Narrow Spot HaloXen®	12	12	260	9000	5000	C-6	2.75"	5
		107792	\$,1,2,7	HP36WFL20/HX	Wide Flood HaloXen®	12	12	260	530	5000	C-6	2.75"	32

### 35 WATT

PAR14	Med.	107548	N\$,1,7,8	HP14FL35	Flood	10/40	130	300	400	3000	CC-8	2.44"	50
PAR20	Med.	107610	N\$,1,7,8	HP20NFL35	Narrow Flood	15	130	450	700	3000	CC-8	3.23"	30
PAR36	Screw Term.	107794	\$,1,2,7	HP36NSP35/HX	Narrow Spot HaloXen®	12	12	540	3500	5000	C-6	2.75"	12
		107796	\$,1,2,7	HP36VNSP35/HX	Very Narrow Spot HaloXen®	12	12	540	17000	5000	C-6	2.75"	5
		107798	\$,1,2,7	HP36WFL35/HX	Wide Flood HaloXen®	12	12	540	1000	5000	C-6	2.75"	32

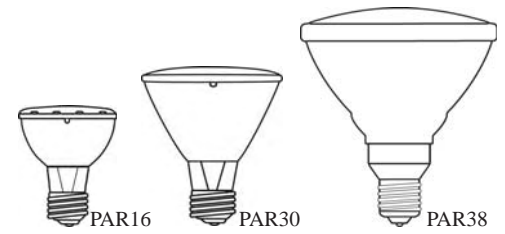
### 45 WATT

PAR16	Med.	107502	N\$,1,7,8	HP16NFL45	Narrow Flood	15	130	500	850	3000	CC-2V	3.31"	30
PAR20	Med.	70100	\$,1,7,8	† N HP20NFL45/HX	Narrow Flood HaloXen®	15	125	500	-	5000	CC-8	3.23"	30
PAR38	Med.	107564	ⓔ N\$,1,7	HP38FL45	Flood	15	130	500	1500	3000	CC-8	5.32"	30
		107690	ⓔ N\$,1,7	HP38FL45/120	Flood	15	120	500	1500	3000	CC-8	5.32"	30
		107580	ⓔ N\$,1,7	HP38SP45	Spot	15	130	500	8000	3000	CC-8	5.32"	10

### 50 WATT

PAR20	Med.	107674	N\$,1,7,8	HP20FL50	Flood	15	130	550	700	3000	CC-8	3.23"	40
		107624	N\$,1,7,8	HP20NFL50	Narrow Flood	15	130	550	1200	3000	CC-8	3.23"	30
		107660	N\$,1,7,8	HP20NFL50/120	Narrow Flood	15	120	550	1200	3000	CC-8	3.23"	30
		107626	N\$,1,7,8	HP20SP50	Spot	15	130	550	2800	3000	CC-8	3.23"	10
		107852	N\$,1,7,8	HP20SP50/120	Spot	15	120	550	2800	3000	CC-8	3.23"	10
PAR30	Med.	107520	ⓔ N\$,1,7,8	HP30FL50	Flood	15	130	660	1000	3000	CC-8	3.62"	40
		107854	ⓔ N\$,1,7,8	HP30FL50/120	Flood	15	120	660	1000	3000	CC-8	3.62"	40
		107522	ⓔ N\$,1,7,8	HP30FL50L	Flood Long Neck	15	130	610	1000	3000	CC-8	4.75"	40
		107528	ⓔ N\$,1,7,8	HP30SP50	Spot	15	130	660	4500	3000	CC-8	3.62"	10
		107530	ⓔ N\$,1,7,8	HP30SP50L	Spot Long Neck	15	130	610	4500	3000	CC-8	4.75"	10
PAR36	Screw Term.	107782	1,2,7	HP36NSP50/HX	Narrow Spot HaloXen®	12	12	910	5000	5000	C-6	2.75"	12
		107784	1,2,7	HP36VNSP50/HX	Very Narrow Spot HaloXen®	12	12	910	25000	5000	C-6	2.75"	5
		107786	1,2,7	HP36WFL50/HX	Wide Flood HaloXen®	12	12	910	1500	5000	C-6	2.75"	32

ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	CBCP	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® PAR Lamps (cont'd)

### 60 WATT

PAR16 Med.	107616	N\$,1,7,8	HP16NFL60	Narrow Flood	15	130	680	1500	3000	CC-8	3.31"	30
	107850	N\$,1,7,8	HP16NFL60/120	Narrow Flood	15	120	680	1500	3000	CC-8	3.31"	30
	107504	N\$,1,7,8	HP16NSP60	Narrow Spot	15	130	680	4000	3000	CC-8	3.31"	10
PAR38 Med.	107568	ⓔN\$,1,7	HP38FL60	Flood	15	130	800	2000	3000	CC-8	5.32"	30
	107754	ⓔN\$,1,7	HP38FL60/FR	Flood Frost	15	130	660	1600	3000	CC-8	5.32"	-

### 70 WATT

PAR30 Med.	70200	ⓔ† N\$,1,7,8	HP30FL70/HX	Flood HaloXen®	15	125	1040	-	5000	CC-8	3.62"	40
	70201	ⓔ† N\$,1,7,8	HP30FL70L/HX	Flood Long Neck HaloXen®	15	125	990	-	5000	CC-8	4.75"	40

### 75 WATT

PAR30 Med.	107633	ⓔN\$,1,7,8	HP30FL75	Flood	15	130	1100	1800	3000	CC-8	3.62"	40
	107670	ⓔN\$,1,7,8	HP30FL75/120	Flood	15	120	1100	1800	3000	CC-8	3.62"	40
	107758	ⓔN\$,1,7,8	HP30FL75/FR	Flood Frost	15	130	980	1450	3000	CC-8	3.62"	-
	107634	ⓔN\$,1,7,8	HP30FL75L	Flood Long Neck	15	130	1050	1800	3000	CC-8	4.75"	40
	107672	ⓔN\$,1,7,8	HP30FL75L/120	Flood Long Neck	15	120	1050	1800	3000	CC-8	4.75"	40
	107820	ⓔN\$,1,7,8	HP30FL75L/FR	Frost Long Neck Flood	15	130	980	1450	3000	CC-8	4.75"	-
	107540	ⓔN\$,1,7,8	HP30SP75	Spot	15	130	1100	8000	3000	CC-8	3.62"	10
	107858	ⓔN\$,1,7,8	HP30SP75/120	Spot	15	120	1100	8000	3000	CC-8	3.62"	10
	107542	ⓔN\$,1,7,8	HP30SP75L	Spot Long Neck	15	130	1050	8000	3000	CC-8	4.75"	10
PAR38 Med.	107572	ⓔN\$,1,7,8	HP30WFL75L	Wide Flood Long Neck	15	130	1050	1000	3000	CC-8	4.75"	60
	107576	ⓔN\$,1,7	HP38FL75	Flood	15	130	1100	2500	3000	CC-8	5.32"	30
	107864	ⓔN\$,1,7	HP38FL75/120	Flood	15	120	1100	2500	3000	CC-8	5.32"	30

### 85 WATT

PAR38 Med.	70403	ⓔ† N\$,1,7	HP38FL85/HX	Flood HaloXen®	15	125	1240	-	5000	CC-8	5.32"	30
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### 90 WATT

PAR38 Med.	107644	ⓔN\$,1,7	HP38FL90	Flood	15	130	1300	3500	3000	CC-8	5.32"	30
	107696	ⓔN\$,1,7	HP38FL90/120	Flood	15	120	1300	3500	3000	CC-8	5.32"	30
	107840	ⓔN\$,1,7	HP38FL90/FR	Frost Flood	15	130	1100	2800	3000	CC-8	5.32"	-
	107584	ⓔN\$,1,7	HP38SP90	Spot	15	130	1300	18000	3000	CC-8	5.32"	10
	107866	ⓔN\$,1,7	HP38SP90/120	Spot	15	120	1300	18000	3000	CC-8	5.32"	10

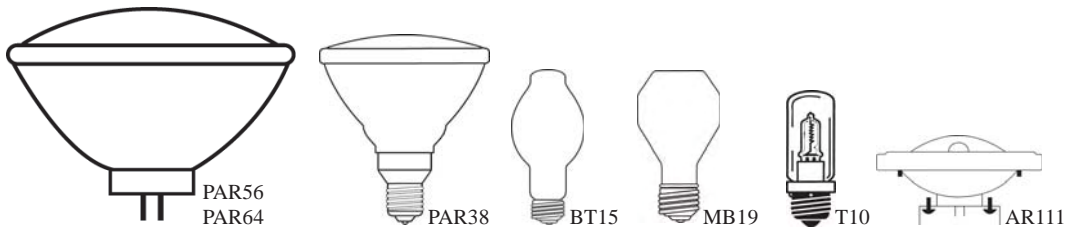
### 100 WATT

PAR38 Med.	70402	ⓔ† N\$,1,7	HP38FL100	Flood	15	130	1500	3600	3000	CC-8	5.32"	30
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### 120 WATT

PAR38 Med.	107560	ⓔN\$,1,7	HP38FL120	Flood	15	130	1820	3800	3000	CC-8	5.32"	30
	107868	ⓔN\$,1,7	HP38FL120/120	Flood	15	120	1820	3800	3000	CC-8	5.32"	30

ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	CBCP	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® PAR Lamps (cont'd)

### 250 WATT

PAR38	Med.	15558	N,1,7	<b>Q250PAR/FL</b>	Flood Major	6	120	3600	9000	4500	CC-8	5.32"	30
		15526	N,1,7	<b>Q250PAR/SP</b>	Spot Major	6	120	3600	40000	4500	CC-8	5.32"	10

### 500 WATT

PAR56	Mog. End Prg	843495	1,5,6,7	<b>PAR56Q500MFL</b>	Medium Flood Major	6	120	8000	43000	4000	CC-6	5"	26x10
		843494	1,5,6,7	<b>PAR56Q500NSP</b>	Narrow Spot Major	6	120	8000	96000	4000	CC-6	5"	13x8
		843496	1,5,6,7	<b>PAR56Q500WFL</b>	Wide Flood Major	6	120	8000	19000	4000	CC-6	5"	44x20

### 1000 WATT

PAR64	Mog. End Prg	813233	1,5,6,7	<b>FFN</b>	Very Narrow Spot Major	6	120	-	400000	800	C-7A	6"	12X6
		56207	1,5,6,7	<b>PAR64Q1000MFL</b>	Medium Flood Major	6	120	19400	80000	4000	CC-6	6"	28x12

## PRISM® Aluminum Reflector

### 50 WATT

AR111	G53	104150	3	<b>AR111FL50</b>	Flood	6	12	-	4100	3000	C-8	2.64"	24
		104154	3	<b>AR111SP50</b>	Spot	6	12	-	23000	3000	C-8	2.64"	8
		104158	3	<b>AR111WFL50</b>	Wide Flood	6	12	-	1200	3000	C-8	2.64"	45

### 75 WATT

AR111	G53	104152	3	<b>AR111FL75</b>	Flood	6	12	-	5300	3000	C-8	2.64"	24
		104156	3	<b>AR111SP75</b>	Spot	6	12	-	30000	3000	C-8	2.64"	8
		104160	3	<b>AR111WFL75</b>	Wide Flood	6	12	-	1700	3000	C-8	2.64"	45

### 100 WATT

AR111	G53	104162	3	<b>AR111FL100</b>	Flood	6	12	-	8500	3000	C-8	2.64"	24
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## PRISM® Double Envelope

### 50 WATT

MB19	Med.	108850	x	<b>MB19FR50</b>	Frost	12	130	600	2800	2500	CC-8	4.25"	-
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### 60 WATT

BT15	Med.	107052	N,4	<b>JTT60/SW</b>	Soft White	10/200	120	820	2800	2500	CC-8	4.25"	-
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### 75 WATT

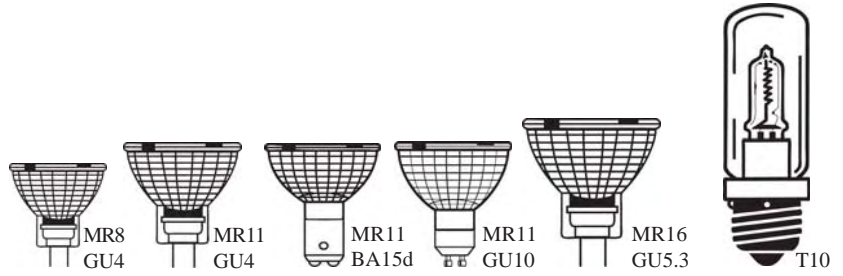
BT15	Med.	107048	N,4	<b>JTT75/SW</b>	Soft White	10/200	120	1000	2850	2500	CC-8	4.25"	-
MB19	Med.	108860		<b>MB19FR75</b>	Frost	12	130	1050	2850	2500	CC-8	4.25"	-

### 100 WATT

BT15	Med.	107050	N,4	<b>JTT100/SW</b>	Soft White	10/200	120	1400	2900	2500	CC-8	4.25"	-
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### 150 WATT

T10	Med.	107045	N,4	<b>JDD150</b>	Clear Double Envelope	10/200	130	2200	2800	2000	CC-8	4.14"	-
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Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	CBCP	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® Double Envelope (cont'd)

### 250 WATT

T10	Med.	107046	N,3	JDD250	Clear	10/200	130	6700	2850	2000	CC-8	4.14"	-
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## PRISM® MR8, MR11 & MR16

### 5 WATT

MR11	GU4	107516	3	MR11FL5/L	Flood w/Lens	10/200	12	80	2950	2000	C-6	1.38"	30
		107112	x,3	MR11SP5/L	Spot w/Lens	10/200	12	1100	2950	2000	C-6	1.38"	10

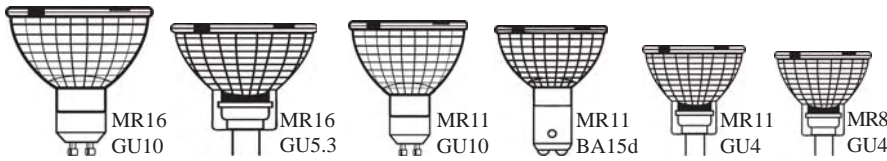
### 10 WATT

MR8	GU4	107488	3	MR8W10/L	Wide Flood w/Lens	10/200	12	300	3000	2000	C-8	1.28"	20
MR11	GU4	107940	3	MR11FL10/L	Flood w/Lens	10/200	12	300	2900	2000	C-6	1.38"	30
		107114	3	MR11SP10/L	Spot w/Lens	10/200	12	2500	2900	2000	C-6	1.38"	10
MR16	GU5.3	107098	3	MR16FL10	Flood	10/100	12	340	2900	3000	C-6	1.77"	36
		107097	3	MR16FL10/L	Flood w/Lens	10/100	12	200	2900	2000	C-6	1.77"	36
		107096	x,3	MR16SP10	Spot	10/100	12	2000	2900	3000	C-6	1.77"	12
		107094	3	MR16SP10/L	Spot w/Lens	10/100	12	100	2900	2000	C-6	1.77"	12

### 20 WATT

MR8	GU4	107466	3	MR8N20/L	Narrow Flood w/Lens	10/200	12	1750	3000	2000	C-8	1.28"	10
		108610	3	MR8W20/L	Wide Flood w/Lens	10/200	12	900	3000	3000	C-8	1.28"	20
MR11	BA15d	107101	3	MR11FTB/L/TL	Narrow Spot w/Lens Twist Lock	10/200	12	5500	2900	3000	C-6	1.77"	10
		107103	3	MR11FTC/L/TL	Medium Flood w/Lens Twist Lock	10/200	12	1750	2900	3000	C-6	1.77"	20
		107105	3	MR11FTD/L/TL	Flood w/Lens Twist Lock	10/200	12	700	2900	3000	C-6	1.77"	30
	GU4	107100	3	MR11FTB/L	Narrow Spot w/Lens	10/200	12	5500	2900	3000	C-6	1.38"	10
		107922	2,3	MR11FTB/L/HX	Narrow Spot w/Lens HaloXen®	10/200	12	4100	3100	10000	C-8	1.38"	10
		107472	x,3	MR11FTB/L/24V	Narrow Spot w/Lens	10/200	24	2800	2900	3000	CC-6	1.38"	10
		107102	3	MR11FTC/L	Medium Flood w/Lens	10/200	12	1750	2900	3000	C-6	1.38"	20
		107924	2,3	MR11FTC/L/HX	Medium Flood w/Lens HaloXen®	10/200	12	1750	3100	10000	C-8	1.38"	20
		107474	x,3	MR11FTC/L/24V	Medium Flood w/Lens	10/200	24	1000	2900	3000	CC-6	1.38"	20
		107104	3	MR11FTD/L	Flood w/Lens	10/200	12	700	2900	3000	C-6	1.38"	30
	GU10	107926	2,3	MR11FTD/L/HX	Flood w/Lens HaloXen®	10/200	12	700	3100	10000	C-8	1.38"	30
		107476	3	MR11FTD/L/24V	Flood w/Lens	10/200	24	500	2900	3000	CC-6	1.38"	30
		107544	3	MR11FL20/L/GU10	Flood w/Lens	10/200	120	220	2850	2000	CC-2V	2.17"	30
	MR16	GU5.3	107480	3	MR16BAB	Flood	10/100	12	460	2900	3000	C-8	1.77"
107120			3	MR16BAB/SC	Flood SureColor™	10/100	12	700	2950	5000	C-8	1.77"	38
107494			3	MR16BAB/L	Flood w/Lens	10/100	12	450	2900	3000	C-8	1.77"	38

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	CBCP	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® MR8, MR11 & MR16 (cont'd)

### 20 WATT (cont'd)

MR16	GU5.3	107121	3	MR16BAB/L/SC	Flood w/Lens	10/100	12	700	2950	5000	C-8	1.77"	38
		107526	2,3	MR16BAB/L/HX	Flood w/Lens	10/100	12	700	3100	10000	C-8	1.77"	38
		107300	x,3	MR16BAB/FR/SC	Flood Frost w/Lens	10/100	12	450	2950	5000	C-8	1.77"	38
		107350	3	MR16BAB/BLK/L	Flood Black Back w/Lens	10/100	12	900	2950	5000	C-8	1.77"	38
		107115	3	MR16BAB/BLU	Blue Flood	10/100	12	850	-	3000	C-6	1.77"	38
		107116	3	MR16BAB/GRN	Green Flood	10/100	12	850	-	3000	C-6	1.77"	38
		107118	3	MR16BAB/RED	Red Flood	10/100	12	850	-	3000	C-6	1.77"	38
		107119	x,3	MR16BAB/YEL	Yellow Flood	10/100	12	850	-	3000	C-6	1.77"	38
		107440	3	MR16BBF/L/SC	Medium Flood w/Lens	10/100	12	1500	2950	5000	C-8	1.77"	20
		107482	3	MR16ESX	Narrow Spot	10/100	12	3350	2900	3000	C-8	1.77"	12
		107122	3	MR16ESX/SC	Narrow Spot	10/100	12	4000	2950	5000	C-8	1.77"	10
		107496	3	MR16ESX/L	Narrow Spot w/Lens	10/100	12	3280	2900	3000	C-8	1.77"	12
		107123	3	MR16ESX/L/SC	Narrow Spot w/Lens	10/100	12	4000	2950	5000	C-8	1.77"	10
		107932	2,3	MR16ESX/L/HX	Narrow Spot w/Lens	10/100	12	4100	3100	10000	C-8	1.77"	10
		107444	x,3	MR16ESX/24V	Narrow Spot	10/100	24	3350	2900	4000	CC-6	1.77"	12
		107090	3	MR16WFL20/SC	Wide Flood	10/100	12	450	2950	5000	C-8	1.77"	60
		107400	3	MR16WFL20/L/SC	Wide Flood w/Lens	10/100	12	450	2950	5000	C-8	1.77"	60
		107942	2,3	MR16WFL20/L/HX	Wide Flood w/Lens	10/100	12	400	3100	10000	C-8	1.77"	60
		GU10	107152	3	MR16FL20/L/GU10	Flood w/Lens	10/200	120	170	2800	2000	CC-2V	2.16"

### 35 WATT

MR8	GU4	107470	x,3	MR8W35/L	Wide Flood w/Lens	10/200	12	1800	3050	2000	C-8	1.38"	20
MR11	BA15d	107454	x,3	MR11FTE/L/TL	Narrow Spot w/Lens Twist Lock	10/200	12	4600	2900	3000	C-6	1.77"	10
		107456	3	MR11FTF/L/TL	Medium Flood w/Lens Twist Lock	10/200	12	2400	2900	3000	C-6	1.77"	20
MR11	GU4	107106	3	MR11FTE/L	Narrow Spot w/Lens	10/200	12	4600	2900	3000	C-6	1.38"	10
		107108	3	MR11FTF/L	Medium Flood w/Lens	10/200	12	2400	2900	3000	C-6	1.38"	20
		107928	2,3	MR11FTF/L/HX	Medium Flood w/Lens	10/200	12	3000	3100	10000	C-8	1.38"	20
		107110	3	MR11FTH/L	Flood w/Lens	10/200	12	1500	2900	3000	C-6	1.38"	30
		107930	2,3	MR11FTH/L/HX	Medium Flood w/Lens	10/200	12	1500	3100	10000	C-8	1.38"	30
		107478	x,3	MR11FTH/L/24V	Flood w/Lens	10/200	24	1000	2900	3000	CC-6	1.38"	30
MR11	GU10	107546	3	MR11FL35/L/GU10	Flood w/Lens	10/100	120	560	2850	2000	CC-2V	2"	30

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	CBCP	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® MR8, MR11 & MR16 (cont'd)

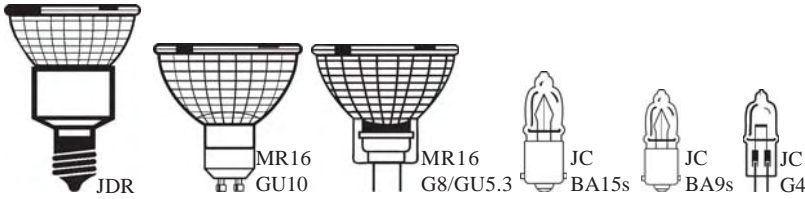
### 35 WATT (cont'd)

MR16	GU5.3	107141	3	MR16FRA/L/SC	Narrow Flood w/Lens	10/100	12	3000	3000	5000	C-8	1.77"	20
		107938	2,3	MR16FRA/L/HX	Narrow Flood w/Lens	10/100	12	3500	3100	10000	C-8	1.77"	20
		107136	3	MR16FRB/SC	Spot	10/100	12	8000	3000	5000	C-8	1.77"	10
		107420	3	MR16FRB/L/SC	Spot w/Lens	10/100	12	8000	3000	5000	C-8	1.77"	10
		107446	x,3	MR16FRB/24V	Spot	10/100	24	5000	3000	4000	CC-6	1.77"	12
		107492	3	MR16FMW	Flood	10/100	12	950	3000	3000	C-8	1.77"	36
		107138	3	MR16FMW/SC	Flood	10/100	12	1500	3000	5000	C-8	1.77"	38
		107508	3	MR16FMW/L	Flood w/Lens	10/100	12	880	3000	3000	C-8	1.77"	36
		107139	3	MR16FMW/L/SC	Flood w/Lens	10/100	12	1500	3000	5000	C-8	1.77"	38
		107518	2,3	MR16FMW/L/HX	Flood w/Lens	10/100	12	1250	3100	10000	C-8	1.77"	38
		107362	3	MR16FMW/BLK/L	Flood Black Back w/Lens	10/100	12	1700	3000	5000	C-6	1.77"	36
		107092	3	MR16WFL35/SC	Wide Flood	10/100	12	800	3000	5000	C-8	1.77"	60
		107430	3	MR16FL35/L/SC	Wide Flood w/Lens	10/100	12	800	3000	5000	C-8	1.77"	60
			GU10	107154	3	MR16FL35/L/GU10	Flood w/Lens	10/100	120	900	2800	2000	CC-2V
JDR/S	Med.	107058	N,3	JDR35/S/L	Flood w/PAR Lens	10/100	130	340	2850	2000	CC-8	2.25"	38

### 50 WATT

MR16	GU5.3	107484	3	MR16EXN	Flood	10/100	12	1350	2900	3000	C-8	1.77"	36
		107124	3	MR16EXN/SC	Flood	10/100	12	2000	3050	5000	C-8	1.77"	38
		107498	3	MR16EXN/L	Flood w/Lens	10/100	12	1350	2900	3000	C-8	1.77"	36
		107125	3	MR16EXN/L/SC	Flood w/Lens	10/100	12	2000	3050	5000	C-8	1.77"	38
		107514	2,3	MR16EXN/L/HX	Flood w/Lens	10/100	12	1700	3150	10000	C-8	1.77"	38
		107304	x,3	MR16EXN/FR/SC	Flood Frost w/Lens	10/100	12	1050	3050	5000	C-8	1.77"	38
		107452	3	MR16EXN/24V	Flood	10/100	24	1600	2900	4000	CC-6	1.77"	36
		107356	3	MR16EXN/BLK/L	Flood Black Back w/Lens	10/100	12	1350	3050	5000	C-8	1.77"	36
		107358	3	MR16EXN/SIL/L	Flood Silver Back w/Lens	10/100	12	1200	3050	5000	C-8	1.77"	36
		107172	3	MR16EXN/BLU	Blue Flood	10/100	12	1350	-	3000	C-8	1.77"	36
		107174	3	MR16EXN/GRN	Green Flood	10/100	12	1350	-	3000	C-8	1.77"	36
		107170	3	MR16EXN/RED	Red Flood	10/100	12	1350	-	3000	C-8	1.77"	36
		107176	3	MR16EXN/YEL	Yellow Flood	10/100	12	1350	-	3000	C-8	1.77"	36
		107486	3	MR16EXT	Spot	10/100	12	11000	2900	3000	C-8	1.77"	12
		107126	3	MR16EXT/SC	Spot	10/100	12	10000	3050	5000	C-8	1.77"	10
		107500	3	MR16EXT/L	Spot w/Lens	10/100	12	10700	2900	3000	C-8	1.77"	12
		107127	3	MR16EXT/L/SC	Spot w/Lens	10/100	12	10000	3050	5000	C-8	1.77"	10
		107934	2,3	MR16EXT/L/HX	Spot w/Lens	10/100	12	10000	3150	10000	C-8	1.77"	12

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	CBCP	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
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**PRISM® MR8, MR11 & MR16 (cont'd)**

**50 WATT (cont'd)**

MR16	GU5.3	107450	x,3	<b>MR16EXT/24V</b>	Spot	10/100	24	11500	2900	4000	CC-8	1.77"	12
		107490	3	<b>MR16EXZ</b>	Narrow Flood	10/100	12	3000	2900	3000	C-8	1.77"	24
		107128	3	<b>MR16EXZ/SC</b>	Narrow Flood	10/100	12	4000	3050	5000	C-8	1.77"	20
		107464	x,3	<b>MR16EXZ/U</b>	Narrow Flood	10/100	12	3500	3150	12000	C-8	1.77"	20
		107506	3	<b>MR16EXZ/L</b>	Narrow Flood w/Lens	10/100	12	2940	2900	3000	C-8	1.77"	24
		107129	3	<b>MR16EXZ/L/SC</b>	Narrow Flood w/Lens	10/100	12	4000	3050	5000	C-8	1.77"	20
		107936	2,3	<b>MR16EXZ/L/HX</b>	Narrow Flood w/Lens	10/100	12	4400	3150	10000	C-8	1.77"	24
		107146	3	<b>MR16FNV/SC</b>	Wide Flood	10/100	12	1050	3050	5000	C-8	1.77"	60
		107462	x,3	<b>MR16FNV/U</b>	Wide Flood	10/100	12	750	3050	12000	C-8	1.77"	60
		107410	3	<b>MR16FNV/L/SC</b>	Wide Flood w/Lens	10/100	12	1050	3050	5000	C-8	1.77"	60
		107524	2,3	<b>MR16FNV/L/HX</b>	Wide Flood w/Lens	10/100	12	1000	3150	1000	C-8	1.77"	60
	G8	108510	3	<b>MR16EXN/G8</b>	Flood	10/100	120	1350	2900	2000	CC-2V	1.77"	36
	GU10	107180	3	<b>MR16FL50/L/GU10</b>	Flood w/Lens	10/100	120	1500	2900	2000	CC-2V	2.16"	30

**75 WATT**

MR16	GU5.3	107130	3	<b>MR16EYC/SC</b>	Flood	10/100	12	2750	3100	5000	C-8	1.77"	38
		107132	3	<b>MR16EYF/SC</b>	Spot	10/100	12	13000	3100	5000	C-8	1.77"	10
		107134	3	<b>MR16EYJ/SC</b>	Narrow Flood	10/100	12	6000	3100	5000	C-8	1.77"	20
		107312	3	<b>MR16WFL75/SC</b>	Wide Flood	10/100	12	1400	3100	5000	C-8	1.77"	60
		107314	3	<b>MR16WFL75/L/SC</b>	Wide Flood w/Lens	10/100	12	1400	3100	5000	C-8	1.77"	60
JDR	Int.	107056	N,3	<b>JDR75INT/L</b>	Wide Flood w/Lens	10/100	130	1600	2950	2000	CC-2V	3"	30
	Med.	107054	N,3	<b>JDR75/L</b>	Wide Flood w/Lens	10/100	130	1600	2950	2000	CC-2V	3"	30

**PRISM® JC Type**

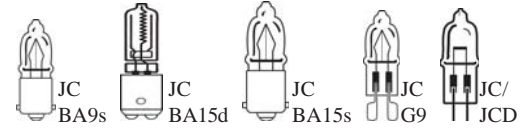
**5 WATT**

T3	BA9s	641110	x,3	<b>JC5/BA9S</b>	Clear	10/1000	12	60	2800	3000	C-8	1.18"	-
	G4	107006	3	<b>JC5</b>	Clear	10/1000	12	60	2800	3000	C-8	1.18"	-

**10 WATT**

T3	BA15s	147008	3	<b>JC10/BA15S</b>	Clear	10/1000	12	120	2800	3000	C-8	1.5"	-
		107944	2,3	<b>JC10/BA15S/HX</b>	Clear	10/1000	12	120	2850	10000	C-8	1.5"	-
G4		107008	3	<b>JC10</b>	Clear	10/1000	12	120	2800	3000	C-8	1.18"	-
		107710	2,3	<b>JC10/HX</b>	Clear	10/1000	12	120	2850	10000	C-8	1.18"	-
		90002	†,3	<b>JC10/X</b>	Clear Xenon	10/500	12	120	2700	20000	C-8	1.18"	-

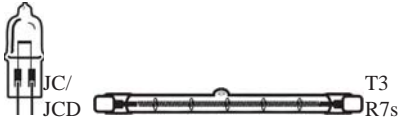
Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



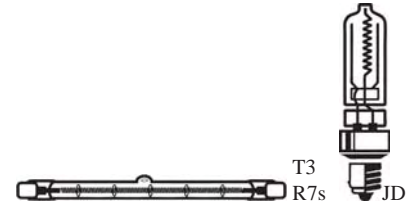
Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
<b>PRISM® JC Type (cont'd)</b>													
<b>20 WATT</b>													
T3	BA15s	147010	3	JC20/BA15S	Clear	10/1000	12	300	2800	3000	C-8	1.5"	-
		107718	2,3	JC20/BA15S/HX	Clear	10/1000	12	350	2900	10000	C-8	1.5"	-
		70920	†,2,3	JC20/FR/BA15S/HX	Frost	10/1000	12	300	2850	10000	C-8	1.5"	-
	G4	107010	3	JC20	Clear	10/1000	12	300	2800	3000	C-8	1.18"	-
		107712	2,3	JC20/HX	Clear	10/1000	12	350	2900	10000	C-8	1.18"	-
		90003	†,3	JC20/X	Clear Xenon	10/500	12	250	2700	10000	C-8	1.18"	-
T4	G6.35	107009	3	JC20/G6.35	Clear	10/1000	12	300	2800	3000	C-8	1.58"	-
	GY6.35	107036	3	JCD20	Clear	10/500	130	180	2750	2000	CC-2V	1.81"	-
	G8	107076	3	JCD20/G8	Clear	10/500	130	180	2750	2000	CC-2V	1.65"	-
<b>25 WATT</b>													
T4	G9	71001	†,3	JCD25/G9	Clear	10/500	130	280	2650	2000	CC-2V	1.65"	-
		107902	3	JCD25FR/G9	Frost	10/500	130	280	2650	2000	CC-2V	1.65"	-
<b>35 WATT</b>													
T4	BA15d	147012	3	JC35/BA15D	Clear	10/1000	12	600	2850	3000	C-8	1.5"	-
		107720	2,3	JC35/BA15D/HX	Clear	10/1000	12	600	2900	10000	C-8	1.5"	-
	G4	107000	3	JC35/G4	Clear	10/1000	12	600	2850	3000	C-8	1.58"	-
		G6.35	107012	3	JC35	Clear	10/1000	12	600	2850	3000	C-8	1.58"
	107714		2,3	JC35/HX	Clear	10/1000	12	600	2900	10000	C-8	1.58"	-
	GY6.35	107011	3	JCD35	Clear	10/500	130	350	2800	2000	CC-2V	1.81"	-
	G8	107072	3	JCD35/G8	Clear	10/500	130	350	2800	2000	CC-2V	1.65"	-
	<b>40 WATT</b>												
T4	G9	107906	3	JCD40/G9	Clear	10/500	130	480	2750	2000	CC-2V	1.65"	-
		107908	3	JCD40FR/G9	Frost	10/500	130	450	2750	2000	CC-2V	1.65"	-
		107310	3	JCD40/FR/G9/120	Frost	10/500	120	450	2800	2000	CC-2V	1.65"	-
<b>50 WATT</b>													
T4	BA15d	147014	x,3	JC50/BA15D	Clear	10/1000	12	900	2950	3000	C-8	1.5"	-
		G6.35	107014	3	JC50	Clear	10/1000	12	900	2950	3000	C-8	1.58"
	107716		2,3	JC50/HX	Clear	10/1000	12	900	3000	10000	C-8	1.58"	-
	GY6.35		107015	3	JCD50	Clear	10/500	130	600	2900	2000	CC-2V	1.81"
	G8	107074	3	JCD50/G8	Clear	10/500	130	600	2900	2000	CC-2V	1.65"	-
<b>60 WATT</b>													
T4	G9	71002	†,3	JCD60/G9	Clear	10/500	130	780	2950	2000	CC-2V	1.65"	-
		107904	3	JCD60FR/G9	Frost	10/500	130	750	2950	2000	CC-2V	1.65"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.





Bulb	Base	Product Number	Footnotes	Product Code	ANSI	Description	Pkg Qty	Volts	Lumens	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
<b>PRISM® JC Type (cont'd)</b>														
<b>75 WATT</b>														
T4	GY6.35	107002	3	JC75	-	Clear	10/1000	12	1350	3000	3000	C-8	1.81"	-
		107001	3	JCD75	-	Clear	10/500	130	980	2950	2000	CC-2V	1.81"	-
<b>100 WATT</b>														
T4	GY6.35	107004	3	JC100	-	Clear	10/1000	12	2100	3100	3000	C-8	1.81"	-
		107003	3	JCD100	-	Clear	10/500	130	1400	3050	2000	CC-2V	2.09"	-
	G8	107070	3	JCD100/G8	-	Clear	10/500	130	1400	3050	2000	CC-2V	2.09"	-
<b>PRISM® J Type Double Ended</b>														
<b>75 WATT</b>														
T3	R7s	107212	3,8,9	Q75T3C	-	Clear 118mm	10/500	130	1200	2850	2000	C-8	4.65"	-
		107210	3,8,9	Q75T3C/S	-	Clear 78mm	10/500	130	1250	2850	2000	C-8	3.07"	-
<b>100 WATT</b>														
T3	R7s	107182	3,8,9	Q100T3C	-	Clear 118mm	10/500	130	1400	2950	2000	C-8	4.65"	-
		107184	3,8,9	Q100T3C/S	-	Clear 78mm	10/500	130	1400	2950	2000	C-8	3.07"	-
		29001	†,3,8,9	Q100T3C/12V	-	Clear 78mm Pool	10/500	12	1600	2950	2000	C-8	3.07"	-
<b>150 WATT</b>														
T3	R7s	107186	3,8,9	Q150T3C	-	Clear 118mm	10/500	130	2250	2950	2000	C-8	4.65"	-
		107188	3,8,9	Q150T3C/S	-	Clear 78mm	10/500	130	240	2950	2000	C-8	3.07"	-
		107214	3,8,9	Q150T3C/12V	-	Clear 83mm Pool	10/500	12	2500	2950	2000	C-8	3.27"	-
<b>200 WATT</b>														
T3	R7s	107190	3,8,9	Q200T3C	-	Clear 118mm	10/500	130	3200	2950	2000	C-8	4.65"	-
		107192	3,8,9	Q200T3C/S	-	Clear 78mm	10/500	130	3200	2950	2000	C-8	3.07"	-
<b>250 WATT</b>														
T3	R7s	107208	3,8,9	Q250T3C/S	-	Clear 78mm	10/500	130	4000	2950	2000	C-8	3.07"	-
		107216	3,8,9	Q250T3C/83MM	-	Clear 83mm Pool	10/500	130	4000	2950	2000	C-8	3.27"	-
<b>300 WATT</b>														
T3	R7s	107194	3,8,9	Q300T3C	-	Clear 118mm	10/500	130	5000	2950	2000	C-8	4.65"	-
		127194	3,8,9	Q300T3C/120	EHM	Clear 118mm	10/500	120	5000	2950	2000	C-8	4.65"	-
<b>500 WATT</b>														
T3	R7s	107196	3,8,9	Q500T3C	DVS	Clear 118mm	10/500	130	9500	3000	2000	C-8	4.65"	-
		127196	3,8,9	Q500T3C/120	FCL	Clear 118mm	10/500	120	9500	3000	2000	C-8	4.65"	-



Bulb	Base	Product Number	Footnotes	Product Code	ANSI	Description	Pkg Qty	Volts	Lumens	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
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## PRISM® J Type Double Ended (cont'd)

### 1000 WATT

T3	R7s	107198	3,8,9	Q1000T3C	-	Clear 254mm	10/500	240	22000	3050	2000	C-8	10"	-
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### 1500 WATT

T3	R7s	107200	3,8,9	Q1500T3C	-	Clear 254mm	10/500	240	33000	3050	2000	C-8	10"	-
		107202	3,8,9	Q1500T3C/277	-	Clear 254mm	10/500	277	33000	3050	2000	C-8	10"	-

## PRISM® JD Type Single Ended

### 35 WATT

T4	BA15d	107035	3	Q35CL/DC	-	Clear	10/400	130	380	2700	2000	CC-2V	1.97"	-
	E11	107034	3	Q35CL/MC	-	Clear	10/400	130	380	2700	2000	CC-2V	2.21"	-

### 50 WATT

T4	BA15d	107018	3	Q50CL/DC	-	Clear	10/400	130	750	2800	2000	CC-2V	1.97"	-
	E11	107019	3	Q50CL/MC	-	Clear	10/400	130	750	2800	2000	CC-2V	2.21"	-

### 75 WATT

T4	BA15d	107021	3	Q75CL/DC	-	Clear	10/400	130	1250	2850	2000	CC-8	2.4"	-
	E11	107020	3	Q75CL/MC	-	Clear	10/400	130	1250	2850	2000	CC-8	2.68"	-
		127020	3	Q75CL/MC/120	-	Clear	10/400	120	1250	2850	2000	CC-8	2.68"	-
		107016	3	Q75MC	-	Frost	10/400	130	1188	2850	2000	CC-8	2.68"	-

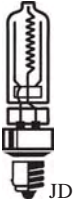
### 100 WATT

T4	BA15d	107025	3	Q100CL/DC	-	Clear	10/400	130	1700	2950	2000	CC-8	2.4"	-
		127025	3	Q100CL/DC/120	ESR	Clear	10/400	120	1700	2950	2000	CC-8	2.4"	-
		107023	3	Q100DC	-	Frost	10/400	130	1615	2950	2000	CC-8	2.4"	-
	E11	107024	3	Q100CL/MC	-	Clear	10/400	130	1700	2950	2000	CC-8	2.68"	-
		127024	3	Q100CL/MC/120	ESN	Clear	10/400	120	1700	2950	2000	CC-8	2.68"	-
		107022	3	Q100MC	-	Frost	10/400	130	1615	2950	2000	CC-8	2.68"	-

### 150 WATT

T4	BA15d	107029	3	Q150CL/DC	-	Clear	10/400	130	2400	2950	2000	CC-8	2.4"	-
		71102	†,3	Q150CL/DC/120	ETC	Clear	10/200	120	2400	2950	2000	CC-8	2.4"	-
		107027	3	Q150DC	-	Frost	10/400	130	2280	2950	2000	CC-8	2.4"	-
		71101	†,3	Q150DC/120	ETF	Frost	10/200	120	2280	2950	2000	CC-8	2.4"	-
	E11	107028	3	Q150CL/MC	-	Clear	10/400	130	2400	2950	2000	CC-8	2.72"	-
		127028	3	Q150CL/MC/120	ETG	Clear	10/400	120	2400	2950	2000	CC-8	2.72"	-
		107026	3	Q150MC	-	Frost	10/400	130	2280	2950	2000	CC-8	2.72"	-
		71100	†,3	Q150MC/120	ETH	Frost	10/200	120	2280	2950	2000	CC-8	2.72"	-

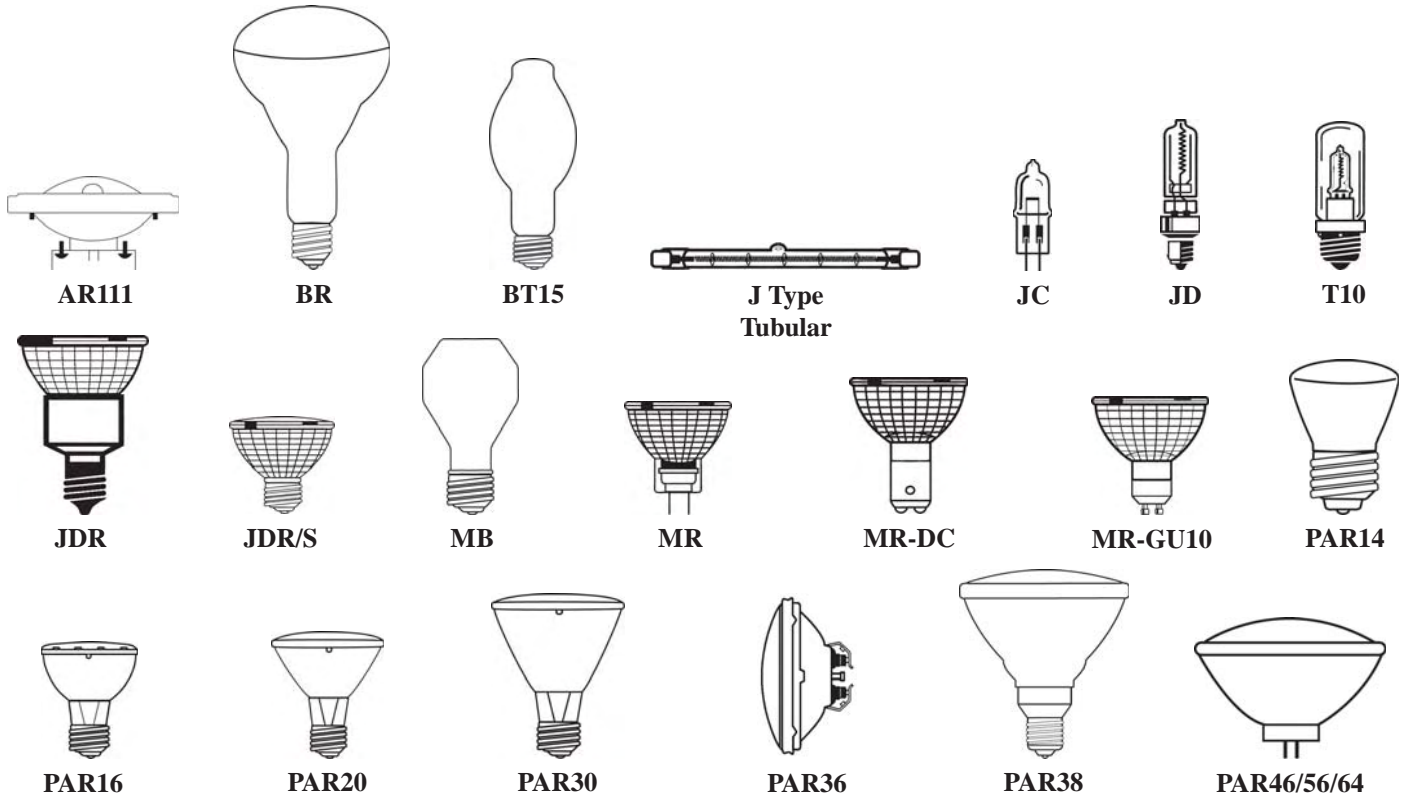
Ⓜ Means this lamp meets Federal Minimum Efficiency standards.  
Halogen symbols, footnotes and abbreviations are located on page 87.



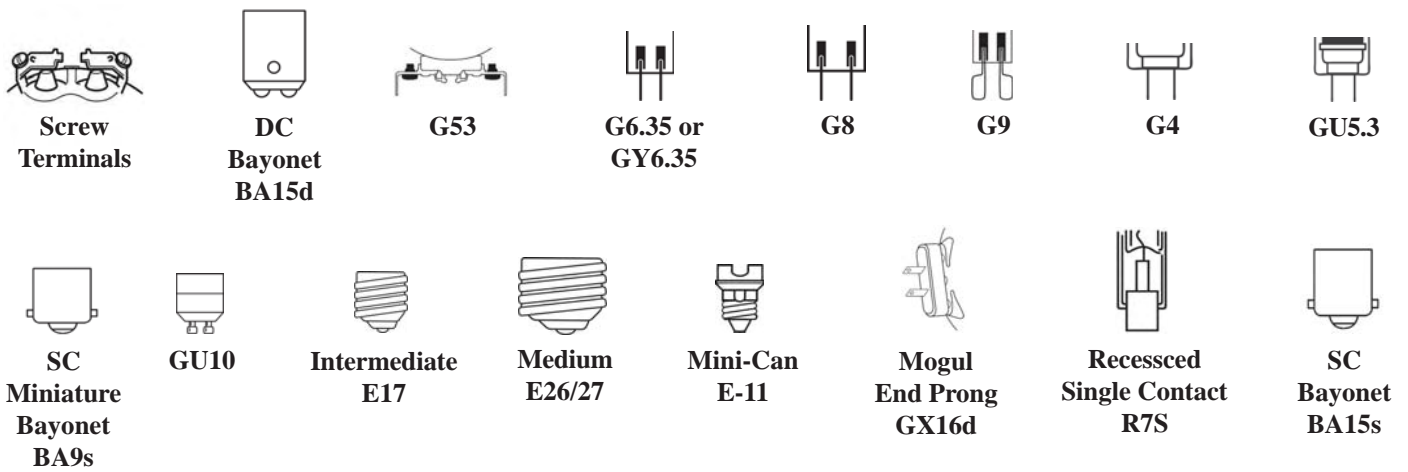
Bulb	Base	Product Number	Footnotes	Product Code	ANSI	Description	Pkg Qty	Volts	Lumens	Color Temp	Avg. Life	Design Filament	MOL	Beam Spread
<b>PRISM® JD Type Single Ended (cont'd)</b>														
<b>250 WATT</b>														
T4	BA15d	107033	3	<b>Q250CL/DC</b>	-	Clear	10/400	130	4500	2950	2000	CC-8	2.76"	-
		127033	3	<b>Q250CL/DC/120</b>	ESS	Clear	10/400	120	4500	2950	2000	CC-8	2.76"	-
		107031	3	<b>Q250DC</b>	-	Frost	10/400	130	4200	2950	2000	CC-8	2.76"	-
		71103	†,3	<b>Q250DC/120</b>	ETB	Frost	10/200	120	4200	2950	2000	CC-8	2.76"	-
T4	E11	107032	3	<b>Q250CL/MC</b>	-	Clear	10/400	130	4500	2950	2000	CC-8	3.15"	-
		127032	3	<b>Q250CL/MC/120</b>	EHT	Clear	10/400	120	4500	2950	2000	CC-8	3.15"	-
		107030	3	<b>Q250MC</b>	-	Frost	10/400	130	4200	2950	2000	CC-8	3.15"	-
<b>400 WATT</b>														
T4	E11	107037	3	<b>Q400CL/MC</b>	-	Clear	10/400	130	7400	2950	2000	CC-8	3.27"	-
<b>500 WATT</b>														
T4	BA15d	107041	3	<b>Q500CL/DC</b>	-	Clear	10/400	130	8500	3000	2000	CC-8	3.98"	-
		E11	107040	3	<b>Q500CL/MC</b>	EYW	Clear	10/400	130	8500	3000	2000	CC-8	3.66"
		127040	3	<b>Q500CL/MC/120</b>	EVR	Clear	10/400	120	8500	3000	2000	CC-8	3.66"	-
		107038	3	<b>Q500MC</b>	EYV	Frost	10/400	130	8075	3000	2000	CC-8	3.66"	-
		71104	3	<b>Q500MC/120</b>	EYX	Frost	10/200	120	8075	3000	2000	CC-8	3.66"	-

## Bulb, Base and Filament Identification Guide

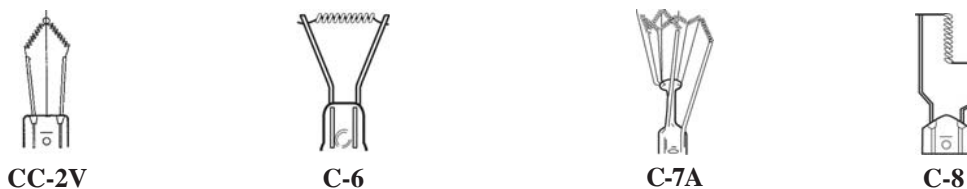
### BULB SHAPES



### BASE TYPES



### FILAMENT TYPES



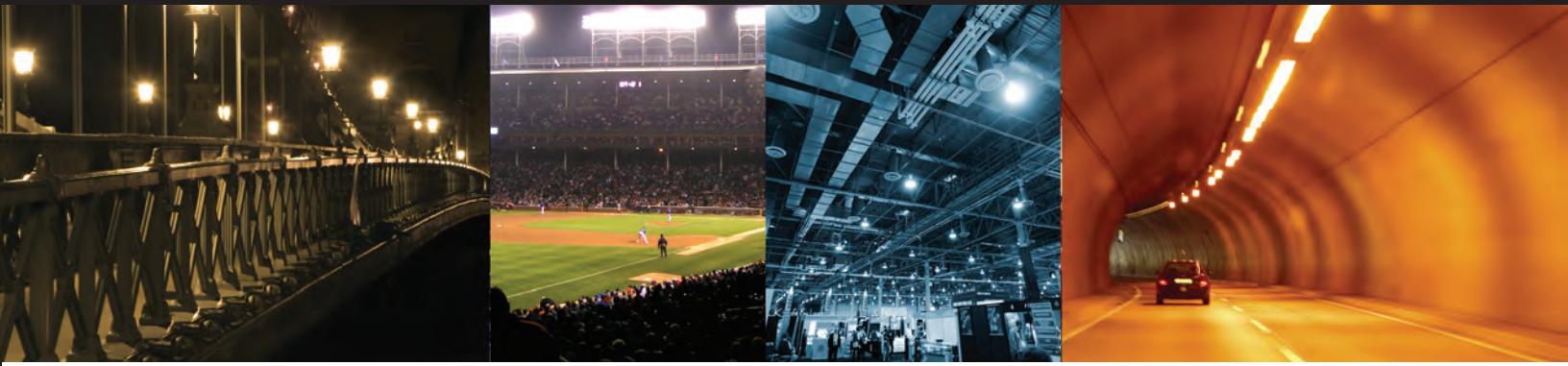
CC indicates coiled-coiled filament.

## Symbols, Footnotes, and Abbreviations

SYMBOLS		ABBREVIATIONS	
†	New product introduced within the past year.	/277V	Suffix used to indicate 277 volt lamps.
N	Nickel-plated brass base.	/24V	Suffix used to indicate 24 volt lamps.
\$	Energy saving product.	/83mm	Suffix used to indicate lamps with MOL of 83mm.
Ⓔ	This lamp meets Federal Minimum Efficiency standards.	/BA9s	Suffix used to indicate lamps with a BA9s base.
x	Product will be discontinued once inventory is depleted.	/BA15d	Suffix used to indicate lamps with a BA15d base.
FOOTNOTES		/BA15s	Suffix used to indicate lamps with a BA15s base.
1	Halogen PAR Caution: Before using bulb, see operating instructions on package. Adhering to these operating instructions will greatly reduce the risk of personal injury or fire. The halogen capsule contained inside this glass bulb operates under pressure, at high temperatures and could unexpectedly shatter. Should the outer bulb break, particles of extremely hot glass could be discharged into the fixture and/or the surrounding area, creating a risk of personal injury or fire. Operating Instructions: Turn power off and let lamp cool before replacing or inspecting to avoid electrical shock or burn. For indoor and outdoor use. A weather-protected fixture is recommended for wet locations. Suitable for use in open fixtures. Do not exceed the fixture maximum wattage rating. Do not use if outer glass is scratched or broken. Lamp may continue to operate if outer glass breaks, however immediately discontinue use. Do not use in close proximity to combustible materials.	/BLK	Suffix used to indicate lamps with a black back, coated reflector.
2	HaloXen® lamps operate under high temperatures. To avoid personal injury, turn power off and allow bulb to cool before attempting to handle. Do not use if the glass is scratched or broken. Do not use near flammable or combustible materials.	/BLU	Suffix used to indicate lamps with a blue lens.
3	Do not touch capsule with bare hands. Oil from the skin may reduce performance unless wiped clean with alcohol and a soft cloth. CAUTION: THIS LAMP OPERATES UNDER PRESSURE AND COULD SHATTER. To avoid injury and to avoid exposure to ultraviolet radiation, this lamp should be used in a fixture with a protective shield or tempered glass. Provide adequate ventilation to avoid overheating and use only in fixtures rated for the wattage stated on the package. To avoid risks of burns or other injury, turn power off and allow lamp to cool before replacing. Socket condition may affect lamp life. Inspect and replace socket if deterioration occurs.	CL	Code abbreviation for lamps with a clear finish.
4	Socket condition may affect lamp life. Inspect and replace socket if deterioration occurs.	/DC	Suffix used to indicate lamps with a DC (BA15d) base.
5	This lamp should be shielded from moisture to prevent breakage	FL	Code abbreviation for flood lamps.
6	Use only with heat resistant connector and with lamp supported by bulb rim.	/FR	Suffix used to indicate lamps with a frost finish.
7	Use only in heat-resistant lamp holders and fixtures rated for reflector or PAR lamps.	/G4	Suffix used to indicate lamps with a G4 base.
8	Use outdoors only in enclosed fixtures or where lamp is protected from exposure to water. Use only in fixtures rated for this product.	/G8	Suffix used to indicate lamps with a G8 base.
9	Operate in a horizontal position only	/G9	Suffix used to indicate lamps with a G9 base.
		/GU10	Suffix used to indicate lamps with a GU10 base.
		/GRN	Suffix used to indicate lamps with a green lens.
		/H	Suffix used to indicate halogen lamp.
		HP	Code abbreviation for halogen PAR lamps.
		/HX	Suffix used to indicate HaloXen® lamps.
		INT	Designation for intermediate (E17) base.
		L	Code abbreviation for PAR30 lamps with a long neck.
		/L	Suffix used to indicate lamps with a lens.
		/MC	Suffix used to indicate lamps mini-candelabra (E11) base.
		MFL	Code abbreviation for medium flood lamps.
		N	Code abbreviation for narrow flood lamps.
		NFL	Code abbreviation for narrow flood lamps.
		NSP	Code abbreviation for narrow spot lamps.
		Q	Code abbreviation to indicate quartz halogen.
		/RED	Suffix used to indicate lamps with a red lens.
		/S	Suffix used to indicate short lamps.
		/SC	Suffix used to indicate Prism® SureColor® lamps.
		/SIL	Suffix used to indicate lamps with a silver back, coated reflector.
		SP	Code abbreviation for spot lamps.
		/SW	Suffix used to indicate lamps with a soft white finish.
		/TL	Suffix used to indicate lamps with a twist lock base (BA15d).
		/U	Suffix used to indicate Prism® Ultra Life® 12,000 hour lamps.
		VNSP	Code abbreviation for very narrow spot lamps.
		W	Code abbreviation for wide flood lamps.
		WFL	Code abbreviation for wide flood lamps.
		/X	Suffix used to indicate xenon lamps.
		/YEL	Suffix used to indicate lamps with a yellow lens.
ABBREVIATIONS			
/12V	Suffix used to indicate 12 Volt lamps.		
/120	Suffix used to indicate 120 Volt lamps.		



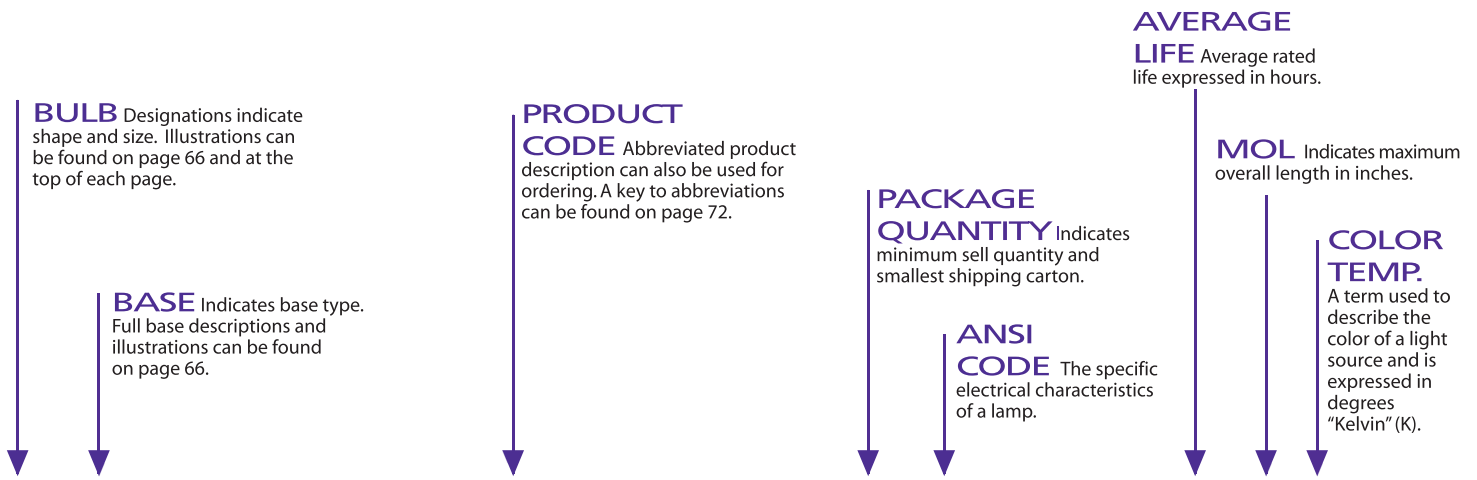
# high intensity discharge



## Contents

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# how to read a table



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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## ProLume® Pulse Start Metal Halide

### 50 WATT

ED17	Med.	108228	1,13,14	MH50/U/MED/PS	Clear	1/12	M110/E	3400	2200	10000	5.45"	4000	65
		108232	1,13,14	MH50/C/U/MED/PS	Coated	1/12	M110/E	3300	2100	10000	5.45"	3700	70

### 70 WATT

ED17	Med.	108246	1,13,14	MH70/U/MED/PS	Clear	1/12	M98/E	5600	3600	15000	5.45"	4000	65
		108248	1,13,14	MH70/C/U/MED/PS	Coated	1/12	M98/E	5300	3400	15000	5.45"	3700	70

### 100 WATT

ED17	Med.	108254	1,13,14	MH100/U/MED/PS	Clear	1/12	M90/E	9000	5900	15000	5.45"	4000	65
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**WATTS**  
Indicates the power consumed by the lamp during operation.

**FOOTNOTES & SYMBOLS**  
Related footnotes can be found on page 72.

**DESCRIPTION**  
Bulb finish and other important information.

**MEAN LUMENS**  
The lamp's average light output at 40% of rated life.

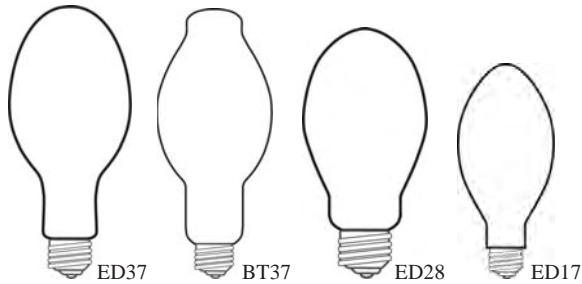
**PRODUCT NUMBER**  
Use this product number when placing an order.

**INITIAL LUMENS**  
The lamp's average light output after the initial 100 hours of operation.

**CRI**  
An International scale from 0 to 100 that indicates the relative color rendering value of a light source. The Color rendering index expresses the degree to which colors will look "natural" under a given light source.

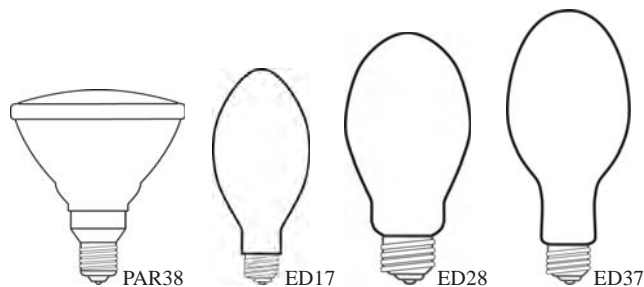


## Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
<b>ProLume® Pulse Start Metal Halide</b>													
<b>50 WATT</b>													
ED17	Med.	108228	1,13,14	MH50/U/MED/PS	Clear	1/12	M110/E	3400	2200	10000	5.45"	4000	65
		108232	1,13,14	MH50/C/U/MED/PS	Coated	1/12	M110/E	3300	2100	10000	5.45"	3700	70
<b>70 WATT</b>													
ED17	Med.	108246	1,13,14	MH70/U/MED/PS	Clear	1/12	M98/E	5600	3600	15000	5.45"	4000	65
		108248	1,13,14	MH70/C/U/MED/PS	Coated	1/12	M98/E	5300	3400	15000	5.45"	3700	70
<b>100 WATT</b>													
ED17	Med.	108254	1,13,14	MH100/U/MED/PS	Clear	1/12	M90/E	9000	5900	15000	5.45"	4000	65
		108256	1,13,14	MH100/C/U/MED/PS	Coated	1/12	M90/E	8500	5500	15000	5.45"	3700	70
ED28	Mogul	60003	†,1,13,14	MH100/U/MOG/PS	Clear	1/12	M90/E	9000	5900	15000	8.25"	4000	65
<b>150 WATT</b>													
ED17	Med.	108258	1,13,14	MH150/U/MED/PS	Clear	1/12	M102/E	14000	10500	15000	5.45"	4000	65
		108260	1,13,14	MH150/C/U/MED/PS	Coated	1/12	M102/E	13300	10000	15000	5.45"	3700	70
ED28	Mogul	108305	1,4,13,14,15	MH150/U/PS	Clear	1/12	M102/E	14000	10500	15000	8.25"	4000	65
<b>175 WATT</b>													
ED17	Med.	60002	†,1,4,13,14,15	MH175/BU/MED/PS	Clear Base Up	1/12	M152/E M137/E	17500	14000	15000	5.45"	4000	65
ED28	Mogul	108274	1,4,13,14,15	MH175/BU/PS	Clear Base Up	1/12	M152/E M137/E	17500	14000	15000	8.25"	4000	65
<b>200 WATT</b>													
ED28	Mogul	108284	1,4,13,14,15	MH200/BU/PS	Clear Base Up	1/12	M136/E	21000	16800	15000	8.25"	4000	65
		60006	†,1,4,13,14,15	MH200/C/BU/PS	Coated Base Up	1/12	M136/E	20000	16000	15000	8.25"	3700	70
<b>250 WATT</b>													
ED28	Mogul	108276	1,4,13,14,15	MH250/BU/PS	Clear Base Up	1/12	M153/E M138/E	25000	20000	15000	8.25"	4000	65
		60005	†,1,4,13,14,15	MH250/C/BU/PS	Coated Base Up	1/12	M153/E M138/E	23800	19000	15000	8.25"	3700	70
<b>320 WATT</b>													
ED28	Mogul	108278	1,4,13,14,15	MH320/BU/PS	Clear Base Up	1/12	M154/E M132/E	33000	26000	20000	8.25"	4000	65
		60004	†,1,4,13,14,15	MH320/C/BU/PS	Coated Base Up	1/12	M154/E M132/E	31000	25000	20000	8.25"	3700	70
<b>350 WATT</b>													
ED37	Mogul	108291	1,4,13,14,15	MH350/BU/PS	Clear Base Up	1/6	M131/E	37000	29000	20000	11.5"	4000	65
<b>400 WATT</b>													
ED37	Mogul	108280	1,4,6,13,14,15	MH400/BU/PS	Clear Base Up	1/6	M155/E M135/E	44000	35000	20000	11.5"	4000	65
<b>750 WATT</b>													
BT37	Mogul	60001	†,1,4,13,14,15	MH750/BU/PS	Clear Base Up	1/6	M149/E	75000	55000	10000	11.5"	4000	65

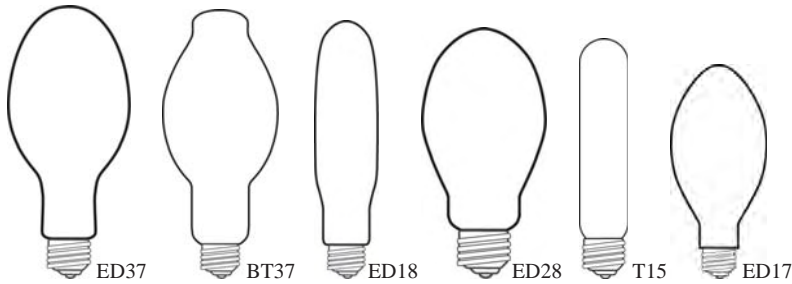
Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
<b>ProLume® Protected Metal Halide</b>													
<b>50 WATT</b>													
ED17	Med.	108266	3,13,14	MP50/U/MED/PS	Clear	1/12	M110/O	3300	2100	10000	5.45"	4000	65
		60505	†,3,13,14	MP50/C/U/MED/PS	Coated	1/12	M110/O	3200	2000	10000	5.45"	3700	70
<b>70 WATT</b>													
ED17	Med.	108268	3,13,14	MP70/U/MED/PS	Clear	1/12	M98/O	5300	3400	12000	5.45"	4000	65
		60508	†,3,13,14	MP70/C/U/MED/PS	Coated	1/12	M98/O	5000	3300	12000	5.45"	3700	70
PAR38	Med.	108250	†,3,5,13	MP70/PAR38/FL/4K	Flood	1/12	M98/O	10000cd	-	10000	5.45"	4000	65
<b>100 WATT</b>													
ED17	Med.	108270	3,13,14	MP100/U/MED/PS	Clear	1/12	M90/O	8500	5500	15000	5.45"	4000	65
		60507	†,3,13,14	MP100/C/U/MED/PS	Coated	1/12	M90/O	8100	5300	15000	5.45"	3700	70
PAR38	Med.	108252	†,3,5,13	MP100/PAR38/FL/4K	Flood	1/12	M90/O	12000cd	-	10000	5.45"	4000	65
<b>150 WATT</b>													
ED17	Med.	108272	3,13,14	MP150/U/MED/PS	Clear	1/12	M102/O	13300	10000	15000	5.45"	4000	65
		60503	†,3,13,14	MP150/C/U/MED/PS	Coated	1/12	M102/O	12600	9500	15000	5.45"	3700	70
<b>175 WATT</b>													
ED17	Med.	108282	3,13,14	MP175/U/MED/IC	Clear	1/12	M57/O	14000	9100	10000	5.45"	4000	65
ED28	EX39	108286	3,13,15,17	MP175/BU	Clear Base Up	1/12	M57/O	14000	9100	10000	8.25"	4000	65
<b>200 WATT</b>													
ED28	EX39	60511	†,3,13,14,15,17	MP200/BU/PS	Clear Base Up	1/12	M136/O	20000	16000	15000	8.25"	4000	65
		60509	†,3,13,14,15,17	MP200/C/BU/PS	Coated Base Up	1/12	M136/O	19000	15200	15000	8.25"	3700	70
<b>250 WATT</b>													
ED28	EX39	108288	3,13,15,17	MP250/BU	Clear Base Up	1/12	M58/O	21800	14200	10000	8.25"	4000	65
		60710	†,3,13,15,17	MP250/C/BU	Coated Base Up	1/12	M58/O	20000	13000	10000	8.25"	3700	70
		108298	†,3,13,14,15,17	MP250/BU/PS	Clear Base Up	1/12	M153/O M138/O	23800	19000	15000	8.25"	4000	65
		60510	†,3,13,14,15,17	MP250/C/BU/PS	Coated Base Up	1/12	M153/O M138/O	22600	17600	15000	8.25"	3700	70
<b>320 WATT</b>													
ED28	EX39	108290	3,4,13,14,15	MP320/BU/PS	Clear Base Up	1/12	M154/O M132/O	31000	25000	20000	8.25"	4000	65
		60504	†,3,4,13,14,15	MP320/C/BU/PS	Coated Base Up	1/12	M154/O M132/O	29000	23000	20000	8.25"	3700	70
<b>360 WATT</b>													
ED37	EX39	108292	†,3,8,13,15, 17,25	MP360/BU/ES	Clear Base Up Energy Saver	1/6	M165/O M59/O	36000	23500	20000	11.5"	4000	65
<b>400 WATT</b>													
ED37	EX39	108294	3,13,15,17	MP400/BU	Clear Base Up	1/6	M59/O	36000	23500	20000	11.5"	4000	65
		60700	†,3,13,15,17	MP400/C/BU	Coated Base Up	1/6	M59/O	34000	22000	20000	11.5"	3700	70
		108296	3,4,6,13,14,15	MP400/BU/PS	Clear Base Up	1/6	M155/O M135/O	41000	33000	20000	11.5"	4000	65

HID symbols, footnotes and abbreviations are located on page 72.

Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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**ProLume® Protected Metal Halide (cont'd)**

**400 WATT (cont'd)**

ED37	EX39	60502	†,3,13,15,17,26	MP400/BU/TEF	Shatter Proof Base Up	1/6	M59/O	-	-	-	11.5"	4000	65
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**750 WATT**

BT37	EX39	60501	†,3,4,6,13,15	MP750/BU/PS	Clear Base Up	1/6	M149/O	72000	52000	10000	11.5"	4000	65
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**ProLume® Standard Metal Halide**

**175 WATT**

ED17	Med.	108262	1,13,17,21,22	MH175/U/MED/IC	Clear	1/25	M57/E	14000	9100	10000	5.45"	4000	65
		108264	1,13,17,21,22	MH175/C/U/MED/IC	Coated	1/12	M57/E	13300	8600	10000	5.45"	3700	70
ED28	Mogul	108200	1,13,17,21,22	MH175/U/IC	Clear	1/12	M57/E	14000	9100	10000	8.25"	4000	65
		108202	1,13,17,21,22	MH175/C/U/IC	Coated	1/12	M57/E	13300	8600	10000	8.25"	3700	70
		108602	1,13,17,21,22,26	MH175/U/IC/TEF	Shatter Proof	1/12	M57/E	-	-	-	8.25"	4000	65

**250 WATT**

ED28	Mogul	108204	1,13,17,21,22	MH250/U/IC	Clear	1/12	M58/E	21000	13700	10000	8.25"	4000	65
		108206	1,13,17,21,22	MH250/C/U/IC	Coated	1/12	M58/E	20000	13000	10000	8.25"	3700	70
		108604	1,13,17,21,22,26	MH250/U/IC/TEF	Shatter Proof	1/12	M58/E	-	-	-	8.25"	4000	65
		61200	†,1,13,21,22	MH250/BU/LU	LU Retrofit Base Up	1/12	S50/E	20000	13000	10000	8.25"	4000	65
POS Mogul		60303	†,1,9,13,17	MH250/HOR/IC	Clear Horizontal	1/12	M58/E	23000	15000	10000	8.25"	4000	65
		60302	†,1,9,13,17	MH250/C/HOR/IC	Coated Horizontal	1/12	M58/E	22000	14300	10000	8.25"	3700	70
T15	Mogul	108220	1,13,17,21,22	MH250/HBU/T15/IC	Clear Horizontal/ Base Up	1/12	M58/E	21000	13700	10000	8.3"	4000	65

**360 WATT**

ED37	Mogul	108212	\$,1,7,8,9,13,15, 17,25	MH360/BU/ES	Clear Base Up	1/6	M165/E M59/E	36000	23000	20000	11.5"	4000	65
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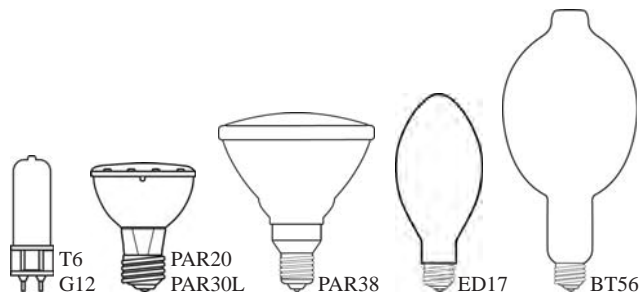
**400 WATT**

BT37	Mogul	849657	1,13,15	MS400/BU	Clear Base Up Major	1/6	M59/E	42000	27000	20000	11.5"	4000	65
ED18	Mogul	108218	†,1,13,15	MH400/HBU/ED18/IC	Clear Base UP/ Horizontal Major	1/12	M59/E	36000	23000	20000	9.75"	4000	65
ED28	Mogul	108216	1,7,13,17,21,22	MH400/U/ED28/IC	Clear	1/12	M59/E	36000	23000	20000	8.25"	4000	65
		60201	†,1,7,13,17,21,22	MH400/C/U/ED28/IC	Coated	1/12	M59/E	34000	22000	20000	8.25"	3700	70
ED37	Mogul	108208	1,7,13,17,21,22	MH400/U/IC	Clear	1/6	M59/E	36000	23000	20000	11.5"	4000	65
		108210	1,13,17,21,22	MH400/C/U/IC	Coated	1/6	M59/E	34000	22000	20000	11.5"	3700	70
		61201	†,1,13,21,22	MH400/BU/LU	LU Retrofit Base Up	1/12	S51/E	38000	24700	10000	11.5"	4000	65
		108600	1,13,17,21,22,26	MH400/U/IC/TEF	Shatter Proof	1/6	M59/E	-	-	-	11.5"	4000	65
		POS Mogul		60300	1,9,13,17	MH400/HOR/IC	Clear Horizontal	1/6	M59/E	38000	24700	20000	11.5"
60301	1,9,13,17			MH400/C/HOR/IC	Coated Horizontal	1/6	M59/E	36800	23900	20000	11.5"	3700	70

**1000 WATT**

BT37	Mogul	108226	1,13,17,21,22	MH1000/U/BT37/IC	Clear	1/6	M47/E	110000	71000	12000	11.5"	4000	65
		60200	†,1,13,17,21,22	MH1000/C/U/BT37/IC	Coated	1/6	M47/E	105000	68000	12000	11.5"	3700	70

Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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**ProLume® Standard Metal Halide (cont'd)**

**1000 WATT (cont'd)**

BT56	Mogul	108222	1,13,17,21,22	MH1000/U/IC	Clear	1/6	M47/E	110000	71000	12000	15.4"	4000	65
		60202	†,1,13,17,21,22	MH1000/C/U/IC	Coated	1/6	M47/E	105000	68000	12000	15.4"	3700	70

**1500 WATT**

BT56	Mogul	837405	1,13,15	MH1500BUH	Clear Base Up/ Horizontal Major	1/6	M48/E	165000	14000	3000	15.4"	3900	65
		108214	1,13,15	MH1500/BU/IC	Clear Base Up	1/6	M48/E	161000	136000	3000	15.4"	3400	65

**Ceramic Metal Halide**

**39 WATT**

PAR20	Med.	233643	3,12	CDM35/P20/FL/830	Flood Major	1/12	M130/O	2000	1300	90000	3.75"	3000	86
		233650	3,12	CDM35/P20/SP	Spot Major	1/12	M130/O	2000	1300	90000	3.75"	3000	86
PAR30	Med.	223305	3,12	CDM35/P30L/FL/830	Flood Long Neck Major	1/6	M130/O	2200	1430	90000	4.75"	3000	81
		223297	3,12	CDM35/P30L/SP/830	Spot Long Neck Major	1/6	M130/O	2200	1430	90000	4.75"	3000	81
T6	G12	223289	1,12	CDM35/T6/830	Clear Major	1/12	M130/E	3300	2600	12000	3.94"	3000	81

**70 WATT**

ED17	Med.	281295	1,12	MHC70UMED/4K/M	Clear Major	1/12	M98/E M143/E	5900	4130	20000	5.44"	4000	92
PAR30	Med.	232215	3,12	CDM70/P30L/FL/830	Flood Long Neck Major	1/6	M98/O M143/O	5000	3050	11000	4.75"	3000	83
		232249	3,12	CDM70/P30L/SP/830	Spot Long Neck Major	1/6	M98/O M143/O	5000	3050	11000	4.75"	3000	83
PAR38	Med.	845677	†,3,12	CDM70/P38/FL/830	Flood Major	1/6	M98/O M139/O	4800	3360	10000	5.44"	3000	82
		845675	3,12	CDM70/P38/SP/830	Spot Major	1/6	M98/O M139/O	4800	3360	10000	5.44"	3000	82
T6	G12	223370	1,12	CDM70/T6/830	Clear Major	1/12	M139/E	6600	4950	12000	3.94"	3000	81

**100 WATT**

ED17	Med.	281352	1,12	MHC100UMED/4K/M	Clear Major	1/12	M90/E M140/E	9000	6750	20000	5.44"	4000	92
PAR38	Med.	845681	3,12	CDM100/P38/FL/830	Flood Major	1/6	M90/O M140/O	6500	4550	10000	5.44"	3000	81
		845680	3,12	CDM100/P38/SP/830	Spot Major	1/6	M90/O M140/O	6500	4550	10000	5.44"	3000	81

**150 WATT**

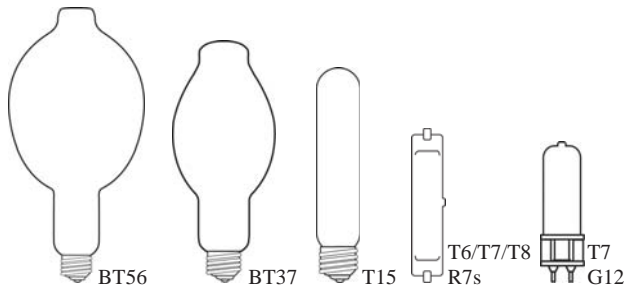
ED17	Med.	377200	1,12	MHC150UMED/4K/M	Clear Major	1/12	M102/E M142/E	13000	9750	20000	5.44"	4000	92
T6	G12	232728	1,12	CDM150/T6/830	Clear Major	1/12	M142/E	14000	9800	12000	4.35"	3000	85

**ProLume® Single Ended Metal Halide**

**70 WATT**

T6	G12	108434	1,2,12,13,24	MH70SE/UVS/3K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.3"	3200	70
		108428	1,2,12,13,24	MH70SE/UVS/4K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.3"	4200	70

## Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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**ProLume® Single Ended Metal Halide (cont'd)****150 WATT**

T7	G12	108430	1,2,12,13,24	MH150SE/UVS/3K	Clear UV-Stop	1/24	M81/E	14000	10500	10000	4.3"	3200	65
		108432	1,2,12,13,24	MH150SE/UVS/4K	Clear UV-Stop	1/24	M81/E	14000	10500	10000	4.3"	4200	65

**ProLume® Double Ended Metal Halide****70 WATT**

T6	R7s	108402	1,2,13,24	MH70DE/UVS/3K	Clear UV-Stop	1/24	M85/E	5600	3400	10000	4.65"	3000	70
		108400	1,2,13,24	MH70DE/UVS/4K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.65"	4000	70

**100 WATT**

T6	R7s	108408	1,2,13,24	MH100DE/UVS/3K	Clear UV-Stop	1/24	M91/E	8000	4680	10000	4.65"	3000	70
		108406	1,2,13,24	MH100DE/UVS/4K	Clear UV-Stop	1/24	M91/E	8000	5200	10000	4.65"	4000	70

**150 WATT**

T7	R7s	108412	1,2,13,24	MH150DE/UVS/3K	Clear UV-Stop	1/24	M81/E	12000	8400	10000	5.37"	3000	70
		108410	1,2,13,24	MH150DE/UVS/4K	Clear UV-Stop	1/24	M81/E	12000	8400	10000	5.37"	4200	70

**250 WATT**

T8	FC2	108414	1,13,24	MH250DE/4K	Clear	1/24	M80/E	20000	13000	8000	6.42"	4200	70
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**ProLume® Color Metal Halide****150 WATT**

T7	R7s	108422	1,2,13,24	MH150DE/UVS/BDX	Blue UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-
		108424	1,2,13,24	MH150DE/UVS/GDX	Green UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-
		108426	1,2,13,24	MH150DE/UVS/MDX	Magenta UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-

**400 WATT**

BT37	Mogul	61001	†,1,13,17,21	MH400/BU/BDX	Blue	1/6	M59/E	-	-	5000	11.5"	-	-
		61002	†,1,13,17,21	MH400/BU/GDX	Green	1/6	M59/E	-	-	5000	11.5"	-	-

**1000 WATT**

BT56	Mogul	61004	†,1,13,17,21	MH1000/BU/BDX	Blue	1/6	M47/E	-	-	5000	15.37"	-	-
		61005	†,1,13,17,21	MH1000/BU/GDX	Green	1/6	M47/E	-	-	5000	15.37"	-	-

**ProLume® Aquarium Metal Halide****150 WATT**

T7	R7s	108420	1,2,13	MH150DE/UVS/10K	Clear UV-Stop	1/24	M81/E	9000	-	8000	5.37"	10000	80
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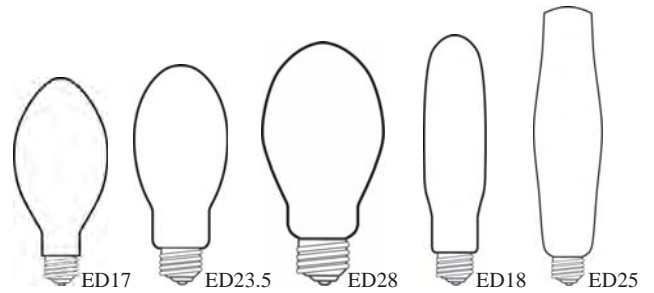
**175 WATT**

T15	Mogul	108418	1,13	MH175/U/T15/10K	Clear	1/12	M57/E	10500	-	10000	8.31"	10000	80
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**400 WATT**

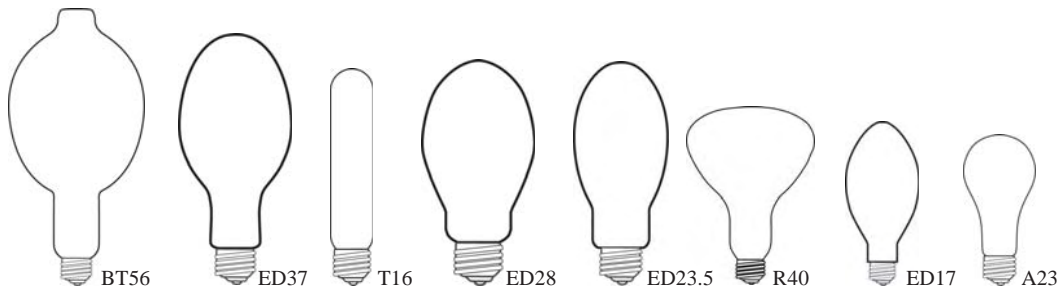
T15	Mogul	108416	1,13	MH400/U/T15/10K	Clear	1/12	M59/E	25000	-	10000	9.76"	10000	90
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High Pressure Sodium



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
<b>ProLume® High Pressure Sodium</b>													
<b>35 WATT</b>													
ED17	Med.	108102	11,14,16	LU35/MED	Clear	1/12	S76	2200	1980	16000	5.45"	2000	20
		108103	11,14,16	LU35/MED/D	Diffused	1/12	S76	2000	1800	16000	5.45"	2000	20
<b>50 WATT</b>													
ED17	Med.	108104	11,14,16	LU50/MED	Clear	1/12	S68	3800	3420	24000	5.45"	2000	20
		108105	11,14,16	LU50/MED/D	Diffused	1/12	S68	3400	3060	24000	5.45"	2000	20
ED23.5	Mogul	208120	11,14,16	LU50	Clear	1/12	S68	3800	3420	24000	7.75"	2000	20
		208121	11,14,16	LU50/D	Diffused	1/12	S68	3400	3060	24000	7.75"	2000	20
<b>70 WATT</b>													
ED17	Med.	108106	11,14,16	LU70/MED	Clear	1/12	S62	6000	5400	24000	5.45"	2000	20
		108107	11,14,16	LU70/MED/D	Diffused	1/12	S62	5500	4950	24000	5.45"	2000	20
ED23.5	Mogul	208122	11,14,16	LU70	Clear	1/12	S62	6000	5400	24000	7.75"	2000	20
		208123	†,11,14,16	LU70/D	Diffused	1/12	S62	5500	4950	24000	7.75"	2000	20
<b>100 WATT</b>													
ED17	Med.	108108	11,14,16	LU100/MED	Clear	1/12	S54	9000	8100	24000	5.45"	2000	20
		108109	11,14,16	LU100/MED/D	Diffused	1/12	S54	8100	7290	24000	5.45"	2000	20
ED23.5	Mogul	208124	11,14,16	LU100	Clear	1/12	S54	9000	8100	24000	7.75"	2000	20
		208125	†,11,14,16	LU100/D	Diffused	1/12	S54	8100	7290	24000	7.75"	2000	20
<b>150 WATT</b>													
ED17	Med.	108110	11,14,16	LU150/MED	Clear	1/12	S55	15000	13500	24000	5.45"	2000	20
		108111	11,14,16	LU150/MED/D	Diffused	1/12	S55	13500	12150	24000	5.45"	2000	20
ED23.5	Mogul	208126	11,14,16	LU150	Clear	1/12	S55	15000	13500	24000	7.75"	2000	20
		208402	11,14,16	LU150/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S55	15000	13500	48000	7.75"	2000	20
ED28	Mogul	64002	x,11,14,16	LU150/100	Clear	1/12	S55	15000	13500	24000	8.98"	2000	20
<b>200 WATT</b>													
ED18	Mogul	208128	11,14,16	LU200	Clear	1/12	S66	22000	19800	24000	9.75"	2000	20
<b>250 WATT</b>													
ED18	Mogul	208130	11,14,16	LU250	Clear	1/12	S50	28000	25200	24000	9.75"	2000	20
<b>400 WATT</b>													
ED18	Mogul	208132	11,14,16	LU400	Clear	1/12	S51	48000	43200	24000	9.75"	2000	20
		208400	11,14,16	LU400/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S51	48000	43200	48000	9.75"	2000	20
<b>1000 WATT</b>													
ED25	Mogul	279547	11,14,16	LU1000	Clear	1/6	S52	130000	117000	24000	15.08"	2000	20

## Low Pressure Sodium Mercury Vapor



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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### ProLume® Low Pressure Sodium

#### 18 WATT

T16	BY22d	821294		SOX18	Clear Major	1/16	L69	1800	1570	18000	8.5"	1800	0
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#### 35 WATT

T16	BY22d	821296		SOX35	Clear Major	1/16	L70	4600	4000	18000	12.25"	1800	0
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### ProLume® Mercury Vapor

#### 50 WATT

ED17	Med.	108302	18,20,22	MV50DX	Deluxe White	1/12	H46	1600	1280	6000	5.45"	4000	45
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#### 75 WATT

ED17	Med.	108304	18,22	MV75DX	Deluxe White	1/12	H43	2700	2250	12000	5.45"	4000	45
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#### 100 WATT

A23	Med.	108340	18,22	MV100DX/A23	Deluxe White A23	1/12	H38	4000	2600	16000	5.45"	4000	45
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ED17	Med.	108306	18,22	MV100DX	Deluxe White	1/12	H38	4600	3600	16000	5.45"	4000	45
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ED23.5	Mogul	108308	18,22	MV100DXMOG	Deluxe White	1/12	H38	4600	3600	24000	7.5"	4000	45
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#### 175 WATT

ED28	Mogul	108332	22	MV175CL	Clear	1/12	H39	7800	7250	24000	8.5"	5800	25
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		108310	18,22	MV175DX	Deluxe White	1/12	H39	8500	6900	24000	8.5"	4000	45
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#### 250 WATT

ED28	Mogul	108334	22	MV250CL	Clear	1/12	H37	12800	10535	24000	8.5"	5800	25
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		108312	18,22	MV250DX	Deluxe White	1/12	H37	13500	11100	24000	8.5"	4000	45
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#### 400 WATT

ED37	Mogul	108336	22	MV400CL	Clear	1/6	H33	22000	18900	24000	10.38"	5800	25
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		108314	18,22	MV400DX	Deluxe White	1/6	H33	23000	19100	24000	10.38"	4000	45
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#### 1000 WATT

BT56	Mogul	869331	10,18,22	MV1000DX	Deluxe White Major	1/6	H36	58000	48500	24000	15.38"	4000	45
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### ProLume® Mercury Vapor Reflector

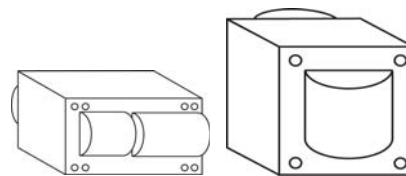
#### 100 WATT

R40	Med.	108350	18	MV100DX/R40	Deluxe White Reflector	1/12	H38	2450	2000	16000	6.89"	5800	45
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#### 175 WATT

R40	Med.	108356	18	MV175DX/R40	Deluxe White Reflector	1/12	H39	6200	4900	24000	6.89"	5800	45
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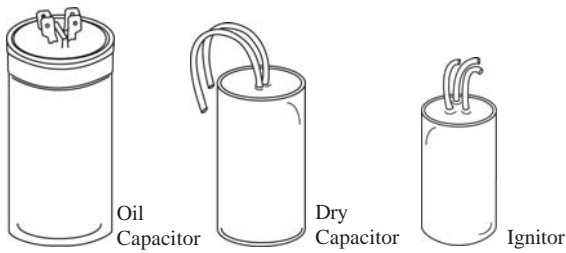
## Ballasts



Product Number	Product Code	Description	Voltage	ANSI Code	Pkg Qty
<b>ProLume® Ballasts</b>					
<b>Pulse Start MH Ballast Kits</b>					
55136	M90/100HX/4T/K	100W MH Quad-Tap Kit	120/208/240/277	M90	1/1
55134	M98/70HX/4T/K	70W MH Quad-Tap Kit	120/208/240/277	M98	1/1
55138	M102/150HX/4T/K	150W MH Quad-Tap Kit	120/208/240/277	M102	1/1
55132	M110/50HX/2T/K	50W MH Dual-Tap Kit	120/277	M110	1/1
55150	M131/350CWA/4T/K	350W MH Quad-Tap Kit	120/208/240/277	M131	1/1
55148	M132/320CWA/4T/K	320W MH Quad-Tap Kit	120/208/240/277	M132	1/1
55162	M135/400CWA/4T/K	400W MH Quad-Tap Kit	120/208/240/277	M135	1/1
55160	M138/250CWA/4T/K	250W MH Quad-Tap Kit	120/208/240/277	M138	1/1
<b>Standard MH Ballast Kits</b>					
55156	M47/1000CWA/4T/K	1000W MH Quad-Tap Kit	120/208/240/277	M47	1/1
55158	M47/1000CWA/5T/K	1000W MH 5-Tap Kit	120/208/240/277/480	M47	1/1
55140	M57/175CWA/4T/K	175W MH Quad-Tap Kit	120/208/240/277	M57	1/1
55164	M57/175CWAH/4T/K	175W MH Quad-Tap Hybrid Kit	120/208/240/277	M57	1/1
55142	M57/175CWA/5T/K	175W MH 5-Tap Kit	120/208/240/277/480	M57	1/1
55144	M58/250CWA/4T/K	250W MH Quad-Tap Kit	120/208/240/277	M58	1/1
55166	M58/250CWAH/4T/K	250W MH Quad-Tap Hybrid Kit	120/208/240/277	M58	1/1
55146	M58/250CWA/5T/K	250W MH 5-Tap Kit	120/208/240/277/480	M58	1/1
55152	M59/400CWA/4T/K	400W MH Quad-Tap Kit	120/208/240/277	M59	1/1
55168	M59/400CWAH/4T/K	400 MH Quad-Tap Hybrid Kit	120/208/240/277	M59	1/1
55154	M59/400CWA/5T/K	400W MH 5-Tap Kit	120/208/240/277/480	M59	1/1
<b>High Pressure Sodium Ballast Kits</b>					
55120	S50/250CWA/4T/K	250W LU Quad-Tap Kit	120/208/240/277	S50	1/1
55122	S50/250CWA/5T/K	250W LU 5-Tap Kit	120/208/240/277/480	S50	1/1
55124	S51/400CWA/4T/K	400W LU Quad-Tap Kit	120/208/240/277	S51	1/1
55126	S51/400CWA/5T/K	400W LU 5-Tap Kit	120/208/240/277/480	S51	1/1
55128	S52/1000CWA/4T/K	1000W LU Quad-Tap Kit	120/208/240/277	S52	1/1
55130	S52/1000CWA/5T/K	1000W LU 5-Tap Kit	120/208/240/277/480	S52	1/1
55112	S54/100HX/4T/K	100W LU Quad-Tap Kit	120/208/240/277	S54	1/1
55110	S54/100R/120/K	100W LU 120V Kit	120	S54	1/1
55116	S55/150HX/4T/K	150W LU Quad-Tap Kit	120/208/240/277	S55	1/1
55114	S55/150R/120/K	150W LU 120V Kit	120	S55	1/1
55108	S62/70HX/4T/K	70W LU Quad-Tap Kit	120/208/240/277	S62	1/1
55106	S62/70R/120/K	70W LU 120V Kit	120	S62	1/1
55118	S66/200CWA/4T/K	200W LU Quad-Tap Kit	120/208/240/277	S66	1/1
55104	S68/50R/120/K	50W LU 120V Kit	120	S68	1/1
55102	S76/35R/120/K	35W LU 120V Kit	120	S76	1/1



## Ballasts



Product Number	Product Code	Description	MFD	Voltage	Pkg Qty
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**ProLume® Ballasts****Capacitors**

55801	CAP/HPS50/120	120V DRY CAPACITOR	20	120	1/138
55805	CAP/HPS70	300V DRY CAPACITOR	7	300	1/138
55803	CAP/HPS70/120	120V DRY CAPACITOR	28	120	1/138
55809	CAP/HPS100	280V DRY CAPACITOR	10	280	1/138
55807	CAP/HPS100/120	120V DRY CAPACITOR	46	120	1/72
55813	CAP/HPS150	280V DRY CAPACITOR	14	280	1/95
55811	CAP/HPS150/120	20V DRY CAPACITOR	55	120	1/72
55815	CAP/HPS200	240V DRY CAPACITOR	28	240	1/72
55817	CAP/HPS250	240V DRY CAPACITOR	35	240	1/72
55819	CAP/HPS400	240V OIL CAPACITOR	55	240	1/35
55821	CAP/HPS1000	525V OIL CAPACITOR	26	525	1/35
55851	CAP/MH50	280V DRY CAPACITOR	6	280	1/95
55853	CAP/MH70	280V DRY CAPACITOR	8	280	1/138
55855	CAP/MH100	280V DRY CAPACITOR	12	280	1/138
55857	CAP/MH150	280V DRY CAPACITOR	16	280	1/95
55859	CAP/MH175	400V DRY CAPACITOR	10	400	1/95
55861	CAP/MH250	400V DRY CAPACITOR	15	400	1/72
55871	CAP/MH250PS	330V DRY CAPACITOR	18.5	330	1/95
55863	CAP/MH320PS	345V DRY CAPACITOR	21	345	1/72
55865	CAP/MH350PS	345V DRY CAPACITOR	22.5	345	1/72
55867	CAP/MH400/OIL	400V OIL CAPACITOR	24	400	1/48
55873	CAP/MH400PS	330V DRY CAPACITOR	26	330	1/72
55869	CAP/MH1000	480V OIL CAPACITOR	24	480	1/35

Product Number	Product Code	Ballast
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**Ignitors**

55901	IGN/HPS1	35-150W HPS
55903	IGN/HPS2	200-400W HPS
55905	IGN/HPS3	1000W HPS
55907	IGN/MH1	50-400W PS MH

Bulb and Base Identification Guide

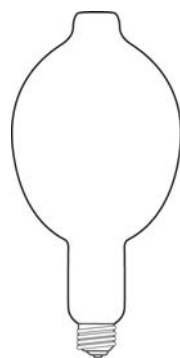
**BULB SHAPES**



A23



BT37



BT56



ED17



ED18



ED23.5



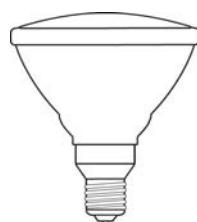
ED25



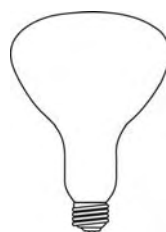
ED37



PAR20/  
PAR30L



PAR38



R40



T6/T7/T8  
Double  
Ended



T6/T7  
Single  
Ended



T15/  
T16

**BASE TYPES**



BY22d  
SC Bayonet



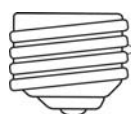
FC2



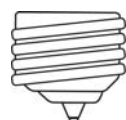
G12  
Medium  
Bi-Pin



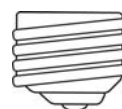
R7S  
Recessed  
Single Contact



POMB  
Position Oriented  
Mogul Base



EX39  
Exclusionary  
Mogul Base



E39



E26/27  
Medium

## Cross Reference Guide

<b>HALCO</b>	<b>G.E.</b>	<b>PHILIPS</b>	<b>OSRAM/SYLVANIA</b>	<b>ANSI</b>
<b>Metal Halide</b>	<b>Multi-Vapor</b>	<b>Metal Halide</b>	<b>Metallarc</b>	
CDM35/P20/FL/830	CMH39/PAR30/FL25	CDM35/PAR20/M/FL	MCP39PAR20/U/830/FL	M130/O
CDM35/P20/SP/830	CMH39/PAR20/SP10	CDM35/PAR20/M/SP	MCP39PAR20/U/830/SP	M130/O
CDM35/P30L/FL/830	CMH39/PAR30L/FL25	CDM35/PAR30L/M/FL	MCP39PAR30LN/U/830/FL	M130/O
CDM35/P30L/SP/830	CMH39/PAR30L/SP10	CDM35/PAR30L/M/SP	MCP39PAR30LN/U/830/SP	M130/O
CDM35/T6/830	CMH39/T/U/830/G12	CDM35/T6/830	MC39T6/U/G12/830	M130/E
MH50/U/MED/PS	MVR50/U/MED	MHC50/U/M/4K/ALTO	-	M110/E
MH50/C/U/MED/PS	MVR50/C/U/MED	-	-	M110/E
CDM70/P30L/FL/830	CMH70/U/PAR30L/FL40	CDM70/PAR30L/M/FL	MCP70PAR30LN/U/830/FL	M98/O or M143/O
CDM70/P30L/SP/830	CMH70/U/PAR30L/SP15	CDM70/PAR30L/M/SP	MCP70PAR30LN/U/830/SP	M98/O or M143/O
CDM70/P38/FL/830	CMH70/PAR38/830/FL25	CDM70/PAR38/SP/3K	MCP70PAR38/U/830/SP	M98/O or M139/O
CDM70/P38/SP/830	CMH70/PAR38/830/SP15	CDM70/PAR38/FL/3K	MCP70PAR38/U/830/FL	M98/O or M139/O
CDM70/T6/830	CMH70/T/U/830/G12	CDM70/T6/830	MC70T6/U/G12/830	M98/E or M139/E
MH70/U/MED/PS	MVR70/U/MED	MHC70/U/M/4K/ALTO	-	M98/E
MH70/C/U/MED/PS	MVR70/C/U/MED	MHC70/C/U/MP/4K/ALTO	-	M98/E
MHC70UMED/4K/M	CMH70/U/830/MED	MHC70/U/M/4K/ALTO	-	M98/E
MH70DE/UVS/3K	ARC70/TD/UVC/730	CDM70/TD/830	HQI-DE70/WDX	M85/E
MH70DE/UVS/4K	ARC70/TD/UVC/743	MHN70/TD/840	HQI-DE70/NDX	M85/E
MH70SE/UVS/3K	CMH70/T/U/830/G12	CDM70/T6/830	MC70T6/U/G12/830	M85/E
MH70SE/UVS/4K	CMH70/T/942/G12	CDM70/T6/942	MC70T6/U/G12/940	M85/E
CDM100/P38/FL/830	CMH100/PAR38/830/FL25	CDM100/PAR38/FL/3K	MCP100PAR38/U/830/FL	M90/O or M140/O
CDM100/P38/SP/830	CMH100/PAR38/830/SP15	CDM100/PAR38/SP/3K	MCP100PAR38/U/830/SP	M90/O or M140/O
MH100/U/MED/PS	MVR100/U/MED	MHC100/U/M/4K/ALTO	-	M90/E
MH100/C/U/MED/PS	MVR100/C/U/MED	MHC100C/U/M/4K/ALTO	-	M90/E
MH100/U/MOG/PS	-	MHC100/U/ED28/HR/4K	-	M90/E
MHC100UMED/4K/M	CMH100/U/830/MED	MHC100/U/M/4K/ALTO	-	M90/E
MH100DE/UVS/3K	-	-	-	M91/E
MH100DE/UVS/4K	-	-	-	M91/E
CDM150/T6/830	CMH150/T/U/830/G12	CDM150/T6/830	MC150T5/U/G12/830	M142/E
MHC150UMED/4K/M	MVR150/U/MED	MHC150/U/M/4K/ALTO	-	M102/E
MH150/U/PS	-	-	-	M102/E
MH150/U/MED/PS	MVR150/U/MED	MHC150/U/M/4K/ALTO	-	M102/E
MH150/C/U/MED/PS	MVR150/C/U/MED	MHC150/C/U/M/4K/ALTO	-	M102/E
MH150DE/UVS/3K	ARC150/TD/UVC/730	MHN150/TD/840	HQI-DE150/WDX	M81/E
MH150DE/UVS/4K	ARC150/TD/UVC/742	CDM150/TD/83	HQI-DE150/NDX	M81/E
MH150DE/UVS/10K	-	-	-	M81/E
MH150DE/UVS/BDX	-	-	-	M81/E
MH150DE/UVS/GDX	-	-	-	M81/E
MH150DE/UVS/MDX	-	-	-	M81/E
MH150SE/UVS/3K	ARC150T/U/830G12	CDM150/T6/830	-	M81/E
MH150SE/UVS/4K	ARC150T/U/840G12	CDM150/T6/942	HQI-SE150/NDX	M81/E
MH175/BU/MED/PS	MVR175/VBU/MED/PA	-	MS175/PS/BU-ONLY/MED	M137/E or M152/E

## Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
Metal Halide	Multi-Vapor	Metal Halide	Metalarc	
MH175/U/MED/IC	MVR175/U/MED	MH175/U/M	M175/U/MED	M57/E
MH175/C/U/MED/IC	MVR175/C/U/MED	MH175/C/U/M	M175/C/U/MED	M57/E
MH175/U/IC	MVR175/U	MH175/U	M175/U	M57/E
MH175/U/IC/TEF	-	-	-	M57/E
MH175/C/U/IC	MVR175/C/U	MH175/C/U	M175/C/U	M57/E
MH175/U/T15/10K	-	-	-	M57/E
MH175/BU/PS	MVR175/VBU/PA	MS175/BU/PS	MS175/PS/BU-ONLY	M137/E or M152/E
MH200/BU/PS	-	-	MS200/PS/BU-ONLY/BT28	M136/E
MH200/C/BU/PS	-	-	MS200/C/PS/BU-ONLY/BT28	M136/E
MH250DE/4K	-	-	HQI-DE250/NDX	M80/E
MH250U/ET18	-	-	M250/U/ET18	M58/E
MH250/U/IC	MVR250/U	MH250/U	M250/U	M58/E
MH250/U/IC/TEF	-	-	-	M58/E
MH250/C/BU/PS	MVR250/C/VBU/PA	-	MS250/C/PS/BU-ONLY	M138/E or M153/E
MH250/C/U/IC	MVR250/C/U	MH250/C/U	M250/C/U	M58/E
MH250/BU/LU	MVR250/VBU/R	-	-	S50/E
MH250/BU/PS	MVR250/VBU/PA	MS250/BU/PS	MP250/PS/BU-ONLY	M138/E or M153/E
MH250/HBU/T15/IC	-	-	-	M58/E
MH250/HOR/IC	MVR250/HOR	-	MS250/HOR	M58/E
MH250/C/HOR/IC	MVR250/C/HOR	-	MS250/C/HOR	M58/E
MH320/BU/PS	MVR320/VBU/XHO/PS	MS320/U/PS	MS320/350/PS/BU-ONLY/BT28	M132/E or M154/E
MH320/C/BU/PS	MVR320/C/VBU/XHO/PS	MS320/C/U/PS	MS320/C/PS/BU-HOR	M132/E or M154/E
MH350/BU/PS	MVR350/VBU/XHO/PA	MS350/BU/PS	MS350/400/PS/BU-ONLY	M131/E
MH360/BU/ES	MVR360/VBU/WM/HO	-	-	M59/E or M165/E
MH400/BU/BDX	-	-	-	M59/E
MH400/BU/GDX	-	-	-	M59/E
MH400/BU/LU	MVR400/VBU/R	-	-	S51/E
MH400/U/IC	MVR400/U	MH400/U	M400/U	M59/E
MH400/U/IC/TEF	-	-	-	M59/E
MH400/C/U/IC	MVR400/C/U	MH400/C/U	M400/C/U	M59/E
MH400/U/ED28/IC	MVR400/U/ED28	MH400/U/ED28	M400/U/BT-28	M59/E
MH400/C/U/ED28/1C	MVR400/C/U/ED28	-	M400/C/U/BT28	M59/E
MH400/U/T15/10K	-	-	-	M59/E
MH400/BU/PS	MVR400/VBU/XHO/PA	MS400/BU/PS	MS/400/PS/BU-ONLY	M135/E or M155/E
MH400/HBU/ED18/IC	-	-	-	M59/E
MH400/HOR/IC	MVR400/HOR/MOG/BT37	-	MS400/HOR	M59/E
MH400/C/HOR/IC	MVR400/C/HOR/MOG/BT37	-	MS400/C/HOR	M59/E
MS400/BU	MVR400/VBU	MS400/BU	MS400/BU-ONLY	M59/E
MH750/BU/PS	MVR750/VBU/PS	MS750/BU/BT37/PS	MS750/PS/BU-HOR/BT37	M149/E
MH1000/BU/BDX	-	-	-	M47/E

## Cross Reference Guide

<b>HALCO</b>	<b>G.E.</b>	<b>PHILIPS</b>	<b>OSRAM/SYLVANIA</b>	<b>ANSI</b>
<b>Metal Halide</b>	<b>Multi-Vapor</b>	<b>Metal Halide</b>	<b>Metalarc</b>	
MH1000/BU/GDX	-	-	-	M47/E
MH1000/U/IC	MVR1000/U	MH1000/U	M1000/U	M47/E
MH1000/C/U/IC	MVR1000/C/U	MH1000/C/U	MH1000/C/U	M47/E
MH1000/U/BT37/IC	MVR1000U/BT37	MH1000/U/BT37	MH1000/U/BT37	M47/E
MH1000/C/U/BT37/IC	-	-	-	M47/E
MH1500/BU/IC	-	-	-	M48E
MH1500BUH	MVR1500/HBU	-	MS1500/BU-HOR	M48/E
MP50/U/MED/PS	MXR50/U/MED/O	MHC50/U/MP/4K/ALTO	MP50/U/MED	M110/O
MP50/C/U/MED/PS	MXR50/C/U/MED/O	-	MP50/C/U/MED	M110/O
MP70/U/MED/PS	MXR70/U/MED/O	MHC70/U/MP/4K/ALTO	MP70/U/MED	M98/O
MP70/C/U/MED/PS	MXR70/C/U/MED/O	MHC70/C/U/MP/4K/ALTO	MP70/C/U/MED	M98/O
MP70/PAR38/FL/4K	-	-	-	M98/O
MP100/U/MED/PS	MXR100/U/MED/O	MHC100/U/MP/4K/ALTO	MP100/U/MED	M90/O
MP100/C/U/MED/PS	MXR100/C/U/MED/O	MHC100/C/U/MP/4K/ALTO	MP100/C/U/MED	M90/O
MP100/PAR38/FL/4K	-	-	-	M90/O
MP150/U/MED/PS	MXR150/U/MED/O	MHC150/U/MP/4K/ALTO	MP150/U/MED	M102/O
MP150/C/U/MED/PS	MXR150/C/U/MED/O	MHC150/C/U/MP/4K/ALTO	MP150/C/U/MED	M102/O
MP175/BU	MPR175/VBU/O	MP175/BU	MP175/BU-ONLY	M57/O
MP175/U/MED/IC	-	-	MP175/BU-ONLY/MED	M57/O
MP200/BU/PS	-	-	-	M136/O
MP200/C/BU/PS	-	-	-	M136/O
MP250/BU	MPR250/VBU/O	MP250/BU	MP250/BU-ONLY	M58/O
MP250/C/BU	MPR250/C/VBU/O	-	MP250/C/BU-ONLY	M58/O
MP250/BU/PS	-	-	MP250/PS/BU-ONLY	M138/O or M153/O
MP250/C/BU/PS	-	-	MP250/C/PS/BU-ONLY	M138/O or M153/O
MP320/BU/PS	MPR320/VBU/XHO/PA	MP320/BU/PS	MP320/350/PS/BU-ONLY/BT28	M132/O or M154/O
MP320/C/BU/PS	MPR320/C/VBU/XHO/PA	MP320/C/BU/PS	MP320/350/C/PS/BU-ONLY/BT28	M132/O or M154/O
MP360/BU/ES	MPR360/VBU/WM/HO/O	MP360/BU/EW	MSP360/SS/BU-ONLY	M59/O or M165/O
MP400/BU	MPR400/VBU/HO/O	MP400/BU	MP400/BU-ONLY	M59/O
MP400/BU/PS	MPR400/VBU/XHO/PA	MP400/BU/PS	MS400/PS/BU-ONLY	M135/O or M155/O
MP400/BU/TEF	-	-	-	M59/O
MP400/C/BU	MPR400/C/VBU/HO/O	MP400/C/BU	MP400/C/BU-ONLY	M59/O
MP750/BU/PS	-	-	-	M149/O
<b>H.P.S.</b>	<b>Lucalox</b>	<b>Ceramalux</b>	<b>Lumalux</b>	<b>ANSI</b>
LU35/MED	LU35/MED	C35S76/M	LU35/MED	S76
LU35MED/D	LU35/D/MED	C35S76/D/M	LU35/D/MED	S76
LU50/MED	LU50/MED	C50S68/M	LU50/MED	S68
LU50/MED/D	LU50/D/MED	C50S68/D/M	LU50/D/MED	S68
LU50	LU50	C50S68/ALTO	LU50/ECO	S68
LU50/D	LU50/D	C50S68/D/ALTO	LU50/D	S68

## Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
H.P.S.	Lucalox	Ceramalux	Lumalux	
LU70/MED	LU70/MED	C70S62/M	LU70/MED	S62
LU70/MED/D	LU70/D/MED	C70S62/D/M	LU70/D/MED	S62
LU70	LU70	C70S62/ALTO	LU70/ECO	S62
LU70/D	LU70/D	-	LU70/D	S62
LU100/MED	LU100/MED	C100S54/M	LU100/MED	S54
LU100/MED/D	LU100/D/MED	C100S54/D/M	LU100/D/MED	S54
LU100	LU100	C100S54/ALTO	LU100/ECO	S54
LU100/D	LU100/D	C100S54/D/ALTO	LU100/D	S54
LU150/MED	LU150/MED	C150S55/M	LU150/55/MED	S55
LU150/MED/D	LU150/D/MED	C150S55/D/M	LU150/55/D/MED	S55
LU150	LU150/55	C150S55/ALTO	LU150/55/ECO	S55
LU150/100	LU150/100 (ED28)	C150S56/ALTO	LU150/100	S56
LU150/SBY/LL	LU150/55/SBY/XL	C150S55/2	LU150/55/SBY	S55
LU200	LU200	C200S66/ALTO	LU200/ECO	S66
LU250	LU250	C250S50/ALTO	LU250/ECO	S50
LU400	LU400	C400S51/ALTO	LU400/ECO	S51
LU400/SBY/LL	LU400/SBL/XL	C400S51/2	LU400/SBY	S51
LU1000	LU1000/ECO	C1000S52/ALTO	LU1000	S52

## Low Pressure Sodium

SOX18	SOX18	SOX-E18	SOX18	L69
SOX35	SOX35	SOX35	SOX35	L70
SOX55	SOX55	SOX55	SOX55	L71

## Mercury Vapor

MV50DX	HR40/50DX45-46	H46DL-40-50/DX	H45/46DL-40/50DX	H46DL-50
MV75DX	HR75DX43	H43AV-75/DX	H43AV-75/DX	H43AV-75
MV100DX	HR100DX38/MED	H38MP-100DX	H38AV-100/DX	H38AV-100
MV100DXMOG	HR100DX38	H38JA-100/DX	H38JA-100/DX	H38JA-100
MV100DX/A23	HR100DX38/A23	H38MP-100/DX	-	H38MP-100
MV100DX/R40	HR100RDXFL38	H38BP-100/DX	H38BP-100/DX	H38B-100
MV175CL	HR175A39	H39KB-175	H39KB-175	H39KB-175
MV175DX	HR175DX39	H39KC-175/DX	H39KC-175/DX	H39KC-175
MV175DX/R40	HR175RDXFL39	H39BP-175/DX	H39BP-175/DX	H39BP-175
MV250CL	HR250A37	H37KB-250	H37KB-250	H37KB-250
MV250DX	HR250DX37	H37KC-250/DX	H37KC-250/DX	H37KC-250
MV400CL	HR400A33	H33CD-400	H33CD-400	H33CD-400
MV400DX	HR400DX33	H33GL-400DX	H33GL-400/DX	H33GL-400
MV1000DX	HR1000DX36	H36GW-1000/DX	H36GW-1000/DX	H36GW-1000

## General Information and Warning Notices

### Fixture Requirements-Lamp Enclosure Type

HID lamps have fixture requirements that have to be followed. The following codes identify the appropriate fixture for a particular lamp.

O = Open or Enclosed Fixtures      E = Enclosed Fixtures Only

### Use in Enclosed Fixtures

"Enclosed" fixture means a fixture properly enclosed and designed to contain fragments of hot glass (up to 1100°C) per UL Standard #1598. If uncertain, contact the fixture manufacturer for more details.

### Use in Open Fixtures

For lamps operated in the vertical position +15° that are not designed for "Enclosed Fixtures Only" may be used in either open or enclosed fixtures depending on the environment and application. For instance, if the lamp is positioned by flammable material or in an unoccupied area for any extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. To obtain more information, contact the fixture manufacturer.

### Protection of Bulbs from Moisture

The outer glass envelope of HID lamps are made of heat-resistant glass, designed to have both strength and thermal-shock-resistant characteristics appropriate for standard applications in typical luminaries. Nevertheless, it is necessary to provide shielding for lamps to avoid bulb breakage that may result from direct contact with liquids during operation.

### Metal Halide Lamps

Fixture lens/diffuser material must be able to hold fragments of hot glass (up to 1100°C). If you do not know whether or not the fixture can safely withstand an arc tube rupture, contact the fixture manufacturer. In continuously operating systems (24/7), turn lamps off once per week for at least 15 minutes. FAILURE TO DO SO INCREASES THE RISK OF RUPTURE. Fixture should be relamped at or before the lamps end of rated life. Light output diminishes while energy consumption and risk of rupture increase if lamp goes beyond its rated life.

### High Pressure Sodium Lamps

This is a vacuum jacket and may implode if broken. As a safety measure, wear safety glasses and gloves when installing or removing lamps. High pressure Sodium lamps are not position sensitive and can be operated in any burning position.

### Mercury Lamps

Fixture lens/diffuser material must be capable of containing fragments of hot glass (up to 1100°C). If you do not know whether your fixture can safely withstand an arc tube rupture, contact your fixture manufacturer. Relamp fixtures at or before the end of rated life; beyond rated life, light output diminishes while energy consumption and risk of rupture increase. Mercury lamps are not position-sensitive and may be operated in any burning position.

### Starting Characteristics

When power is applied, full light output does not occur instantaneously, there is a time delay for the lamp to reach 90% total light output. The delay time for Metal Halide is approximately 2-5 minutes, 3-4 minutes for High Pressure Sodium and 5-7 minutes for Mercury Vapor.

### Lumens- Lumens Listed Are Reference Lumens

The rated average lamp lumen is obtained under controlled laboratory conditions in a set burning position. Initial Reference Lumens refer to the lamp lumen output after burning for 100-hours. Mean Reference Lumens refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 40% of the rated life.

### Rated Life

Values based on laboratory tests of a large quantity of representative lamps under controlled conditions, including operation at 10 hours per start on ballasts having specific electrical characteristics. Individual or groups of lamps may vary from the Rated Life given. Lamp operating conditions may also influence life. Where Rated Life is less than 24,000 hours, it is a MEDIAN value of life expectancy; the total operating time at which, under normal operating conditions, 50% of any large group of originally installed lamps is expected to be still burning. At burning cycles shorter than 10 hours per start, the median life will shorten as follows:

5 hours start - approximate life 75% of rating  
 2 1/2 hours start - approximate life 56% of rating  
 1 1/4 hours start - approximate life 42% of rating

### HID Color

The color temperature and CRI listed in the tables are for reference purposes only. All HID lamps display some amount of lamp to lamp color variation and shift over life. These characteristics may increase depending on choice of fixture, ballast, burning position, and ambient conditions. Color difference may be greater than normal during the first 100 hours of burning.

## Symbols, Footnotes, and Abbreviations

SYMBOLS		FOOTNOTES (cont'd)	
†	New product introduced within the past year	23	Do not use this lamp in fixtures designed for less than rated lamp wattages.
\$	Energy saving product.	24	Use electronic ballast, peak lead ballast or system that can shut itself off if ballast overheating occurs.
x	Product will be discontinued when inventory is depleted.	25	Lamp will operate at 400 watts when used on a linear reactor ballast.
FOOTNOTES		26	Do not operate in aviaries or around fowl or small animals.
1	Lamps classified as E-type are to be used ONLY in suitably enclosed luminaries. See lamp warning.	ABBREVIATIONS	
2	UV-Stop Quartz filtered design.	/2T	Suffix used to indicate 2-Tap (120/277) ballasts.
3	Lamps classified as 0-type comply with ANSI standard C78.387 for containment testing and may be used in open luminaries. See lamp warning.	/3K	Suffix used to indicate Color Temperature of 3500K.
4	When operated on ballasts having a sustaining voltage less than 270 Volts, lamp life may be significantly reduced.	/4K	Suffix used to indicate Color Temperature of 4500K.
5	Lamps with an E26 medium skirt base are not compatible with exclusionary medium sockets.	/4T	Suffix used to indicate 4-Tap (120/208/240/277) ballasts.
6	Lamps may be operated on ANSI M135 (400W) compliant ballasts.	/5T	Suffix used to indicate 5-Tap (120/208/240/277/480) ballasts.
7	20,000 average rated life based on 10 hrs/start. 30,000 average rated life based on 120 hrs/start.	/10K	Suffix used to indicate Color Temperature of 10,000K.
8	Operates at 360 watts on 400 watt M59 ballast or M165 ballast.	/BDX	Suffix used to indicate a Blue ProLume® Metal Halide lamp.
9	Horizontally oriented lamps require a position oriented mogul (POM) socket to accept position oriented mogul base.	BU	Code abbreviation for Base Up Operating position.
10	H34 and H36 lamps are not interchangeable.	C	Code abbreviation for lamps with a Coated finish.
11	Follow fixture manufacturer's recommendations regarding proximity of ballast to lamp.	CAP	Code abbreviation for a capacitor.
12	Supply voltage must be held to ±5 volts of rated supply voltage.	CL	Code abbreviation for lamps with a Clear finish.
13	Color characteristics may vary somewhat from one lamp to another. Time should be allowed for the lamp to stabilize in color when it is turned on for the first time or if for any reason its operating position is changed. This may require several hours of operation, with more than one start. Lamp color and output may change temporarily if the lamp is subjected to excess vibration or shock. Lamp color characteristics may change after long accumulated operating time.	CWA	Code abbreviation for constant wattage autotransformer type ballasts.
14	Use with 4000 Volt pulse-rated sockets only.	DE	Code abbreviation for Double Ended Metal Halide lamps.
15	Performance may not be satisfactory unless operated within specified operating positions.	/DRY	Suffix used to indicate a dry-filled capacitor.
16	For use in fixtures that do not redirect a substantial portion of the energy toward the arc tube; otherwise very early failure is anticipated.	DX	Code abbreviation for ProLume® Deluxe White Mercury Vapor lamps.
17	Requires ballast that is designed to operate all popular brands of metal halide lamps. 1000W types will operate from H36 conventional lag type ballast for Mercury Vapor lamps at ambient temperatures of 50°F or higher. 1000W types must not be operated at 1500W or higher.	/ES	Suffix used to indicate an Energy Saving Metal Halide lamp.
18	It is a characteristic of phosphor-coated vapor lamps to require a few hundred hours of operation to gradually reach normal characteristic color. New lamps may have a slight pink appearance during this initial operating period.	/GDY	Suffix used to indicate a Green ProLume® Metal Halide lamp.
19	Though made of heat-resistant glass, breakage may result if moisture falls on bulb. Use in a well ventilated housing.	/HBU	Code abbreviation for Horizontal to Base Up Metal Halide lamps.
20	For 40W operation use H45 ballast.	/HOR	Code abbreviation for Horizontal Metal Halide lamps.
21	Rated average life: vertical ± 15°. Other positions 75% of rated life.	HX	Code abbreviation for high reactor type ballasts.
22	In general, horizontal lumens will be 5-10% lower than the vertical lumen values.	/IC	Suffix used to indicate ProLume® Industrial/Commercial lamps.
		IGN	Code abbreviation for an ignitor.
		/K	Suffix used to indicate a replacement kit.
		LU	Code abbreviation for High Pressure Sodium lamps.
		/LU	Suffix to indicate High Pressure Sodium to Metal Halide retrofit lamp.
		/M	Suffix used to indicate a Major HID lamp.
		/MDX	Suffix used to indicate a Magenta ProLume® Metal Halide lamp.
		MED	Code abbreviation for Medium base type (E26/27).
		MH	Code abbreviation for Metal Halide lamps.
		MHC	Code abbreviation for Ceramic Metal Halide lamps.
		MV	Code abbreviation for Mercury Vapor lamps.
		/MOG	Suffix to indicate a mogul base lamp.
		MP	Code abbreviation for Protected Metal Halide lamps suitable for open fixture applications.
		/OIL	Suffix used to indicate an oil-filled capacitor
		/PS	Suffix used to indicate Pulse Start lamps and ballasts.
		R	Code abbreviation for reactor type ballasts.
		SE	Code abbreviation for Single Ended Metal Halide lamps.
		SOX	Code abbreviation for Low Pressure Sodium lamps.
		/TEF	Suffix to indicate Teflon® Coated lamps.
		U	Code abbreviation for Universal Metal Halide lamps.
		/UVS	Suffix used to indicate UV-Stop lamps.



# incandescent



## Contents

90	How to read a table
91	General Service Lamps
102	Decorative Lamps
105	Bulb, Base and Filament Identification
106	Symbols, Footnotes and Abbreviations

# how to read a table

**BULB** Designations indicate shape and size. Illustrations can be found on page 105 and at the top of each page.

**BASE** Indicates base type. Full base descriptions and illustrations can be found on page 105.

**PRODUCT CODE** Abbreviated product description can also be used for ordering. A key to abbreviations can be found on page 106.

**PACKAGE QUANTITY** Indicates minimum sell quantity and smallest shipping carton.

**VOLTS** Indicate the product's design voltage of operation.

**DESIGN FILAMENT** Filament types are illustrated on page 105.

**MOL** Indicates maximum overall length in inches.

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>65 WATT</b>												
BR30	Med.	104070	6	<b>BR30FL65</b>	Flood Halco®	24	130	580	5000	C-9	5.37"	-
		124070	6	<b>BR30FL65/120</b>	Flood Halco®	24	120	510	2000	C-9	5.37"	-
		103620	6	<b>BR30FL65/P5</b>	Flood Prism® Long Life Plus	24	130	480	5000	C-9M	5.37"	-
		103110	6	<b>BR30FL65/P10</b>	Flood Prism® Ultra Life®	24	120	420	10000	C-9M	5.37"	-
		103528	N,6	<b>BR30FL65/20</b>	Flood Prism® Ultra Life®	24	120	480	20000	C-9M	5.37"	-
		404014	6	<b>BR30SP65/5</b>	Spot Halco®	24	130	-	5000	C-9	5.37"	-
		404028	6	<b>BR30AMB65/5</b>	Amber Prism®	12/24	130	-	5000	C-9	5.37"	-
		404030	6	<b>BR30BLU65/5</b>	Blue Prism®	12/24	130	-	5000	C-9	5.37"	-

**WATTS** Indicates the power consumed by the lamp during operation.

**FOOTNOTES & SYMBOLS** Related footnotes can be found on page 106.

**DESCRIPTION** Bulb finish and other important information.

**AVERAGE LIFE** Average rated life expressed in hours.

**LUMENS** Represents average light output.

**PRODUCT NUMBER** Use this product number when placing an order.

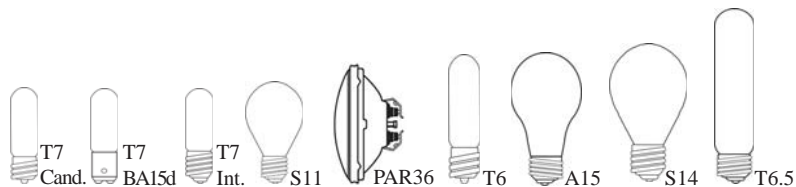
**BEAM SPREAD** Indicates the beam angle or beam spread of a bulb, measured in degrees.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>4 WATT</b>												
C7	Cand.	7014		<b>C7CL4</b>	Clear	25/1000	130	16	1000	C-3A	2.12"	-
<b>5 WATT</b>												
C7	Cand.	7102		<b>C7AMB5T</b>	Transparent Amber	25/1000	130	-	1000	C-3A	2.12"	-
		7104		<b>C7BLU5C</b>	Ceramic Blue	25/1000	130	-	1000	C-3A	2.12"	-
		7106		<b>C7BLU5T</b>	Transparent Blue	25/1000	130	-	1000	C-3A	2.12"	-
		7108		<b>C7GRN5C</b>	Ceramic Green	25/1000	130	-	1000	C-3A	2.12"	-
		7110		<b>C7GRN5T</b>	Transparent Green	25/1000	130	-	1000	C-3A	2.12"	-
		7112		<b>C7ORG5C</b>	Ceramic Orange	25/1000	130	-	1000	C-3A	2.12"	-
		11000	†	<b>C7PUR5T</b>	Transparent Purple	25/1000	130	-	1000	C-3A	2.12"	-
		7114		<b>C7RED5C</b>	Ceramic Red	25/1000	130	-	1000	C-3A	2.12"	-
		7116		<b>C7RED5T</b>	Transparent Red	25/1000	130	-	1000	C-3A	2.12"	-
7118		<b>C7WH5C</b>	Ceramic White	25/1000	130	-	1000	C-3A	2.12"	-		
<b>6 WATT</b>												
S6	Cand.	9042		<b>S6CL6</b>	Clear	25/2000	130	30	1500	C-7A	1.87"	-
		9043		<b>S6CL6/145V</b>	Clear	25/2000	145	30	1500	C-7A	1.87"	-
<b>7 WATT</b>												
C7	Cand.	7016		<b>C7CL7</b>	Clear	25/1000	130	40	1000	C-3A	2.12"	-
		105204		<b>C7WH7/NL</b>	White Night Light	25/2000	130	-	1000	C-3A	2.12"	-
C9	Int.	7050		<b>C9CL7</b>	Clear	25/1000	130	40	3000	C-3A	3"	-
		7120		<b>C9AMB7T</b>	Transparent Amber	25/1000	130	-	3000	C-3A	3"	-
		7122		<b>C9BLU7C</b>	Ceramic Blue	25/1000	130	-	3000	C-3A	3"	-
		7124		<b>C9BLU7T</b>	Transparent Blue	25/1000	130	-	3000	C-3A	3"	-
		7126		<b>C9GRN7C</b>	Ceramic Green	25/1000	130	-	3000	C-3A	3"	-
		7128		<b>C9GRN7T</b>	Transparent Green	25/1000	130	-	3000	C-3A	3"	-
		7130		<b>C9ORG7C</b>	Ceramic Orange	25/1000	130	-	3000	C-3A	3"	-
		7132		<b>C9RED7C</b>	Ceramic Red	25/1000	130	-	3000	C-3A	3"	-
		7134		<b>C9RED7T</b>	Transparent Red	25/1000	130	-	3000	C-3A	3"	-
11001	†	<b>C9WH7C</b>	Ceramic White	25/1000	130	-	3000	C-3A	3"	-		
<b>7.5 WATT</b>												
S11	Med.	7017		<b>S11CL7.5</b>	Clear	25/500	130	45	1500	C-7A	2.25"	-
		7024		<b>S11GRN7.5C</b>	Ceramic Green	25/500	130	-	1500	C-7A	2.25"	-
		7026		<b>S11ORG7.5C</b>	Ceramic Orange	25/500	130	-	1500	C-7A	2.25"	-
		7019		<b>S11RED7.5C</b>	Ceramic Red	25/500	130	-	1500	C-7A	2.25"	-
		7020		<b>S11WH7.5C</b>	Ceramic White	25/500	130	-	1500	C-7A	2.25"	-
		7028		<b>S11YEL7.5C</b>	Ceramic Yellow	25/500	130	-	1500	C-7A	2.25"	-

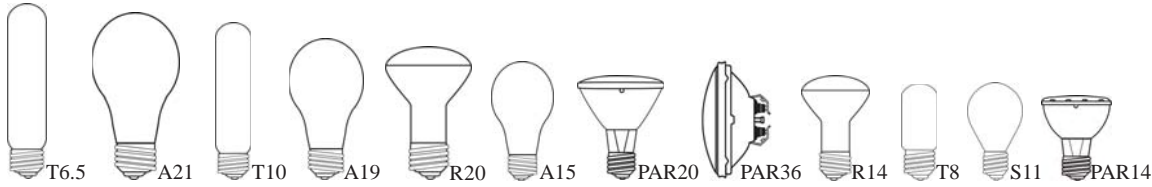
Ⓔ Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

## General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>10 WATT</b>												
S11	Int.	9045		<b>S11CL10</b>	Clear	25/500	130	80	1500	C-7A	2.48"	-
<b>11 WATT</b>												
S14	Med.	9051		<b>S14CL11</b>	Clear	25/250	130	80	5000	C-9	3.5"	-
		9057		<b>S14FR11</b>	Frost	25/250	130	75	3000	C-9	3.5"	-
		9056		<b>S14AMB11T</b>	Transparent Amber	25/250	130	-	3000	C-9	3.5"	-
		9076		<b>S14BLU11C</b>	Ceramic Blue	25/250	130	-	3000	C-9	3.5"	-
		9055		<b>S14BLU11T</b>	Transparent Blue	25/250	130	-	3000	C-9	3.5"	-
		9070		<b>S14GRN11C</b>	Ceramic Green	25/250	130	-	3000	C-9	3.5"	-
		9054		<b>S14GRN11T</b>	Transparent Green	25/250	130	-	3000	C-9	3.5"	-
		105334		<b>S14RED11C</b>	Ceramic Red	25/250	130	-	3000	C-9	3.5"	-
		9052		<b>S14RED11T</b>	Transparent Red	25/250	130	-	3000	C-9	3.5"	-
		9058		<b>S14WH11C</b>	Ceramic White	25/250	130	-	3000	C-9	3.5"	-
		105336		<b>S14YEL11C</b>	Ceramic Yellow	25/250	130	-	3000	C-9	3.5"	-
9053		<b>S14YEL11T</b>	Transparent Yellow	25/250	130	-	3000	C-9	3.5"	-		
<b>15 WATT</b>												
A15	Med.	6013		<b>A15CL15</b>	Clear Halco®	20/120	130	95	3000	C-9	3.5"	-
		6014		<b>A15FR15</b>	Frost Halco®	20/120	130	90	3000	C-9	3.5"	-
T6	Cand.	9030		<b>T6CL15/CAN</b>	Clear	25/500	130	90	2000	C-5A	3.06"	-
		9021		<b>T6CL15/145V</b>	Clear	25/500	145	80	2000	C-5A	3.06"	-
T7	Cand.	9039		<b>T7CL15CAN</b>	Clear	25/1000	120	100	2000	C-5A	2.25"	-
	BA15d	9038		<b>T7CL15DC</b>	Clear	25/1000	120	100	2000	C-5A	2.35"	-
	Int.	9037		<b>T7CL15INT</b>	Clear	25/1000	120	100	2000	C-5A	2.35"	-
<b>20 WATT</b>												
PAR36	Screw Term.	107788	\$.17	<b>HP36NSP20/HX</b>	Narrow Spot HaloXen®	12	12	260	5000	C-6	2.75"	12
		107790	\$.17	<b>HP36VNSP20/HX</b>	Very Narrow Spot HaloXen®	12	12	260	5000	C-6	2.75"	5
		107792	\$.17	<b>HP36WFL20/HX</b>	Wide Flood HaloXen®	12	12	260	5000	C-6	2.75"	32
T6.5	BA15d	9022		<b>T6.5CL20DC</b>	Clear	25/500	130	150	2500	C-8	5.56"	-
		9023		<b>T6.5FR20DC</b>	Frost	25/500	130	150	2500	C-8	5.56"	-
	Int.	9019		<b>T6.5CL20INT</b>	Clear	25/500	130	150	2500	C-8	5.5"	-
		9028		<b>T6.5FR20INT</b>	Frost	25/500	130	150	2500	C-8	5.5"	-

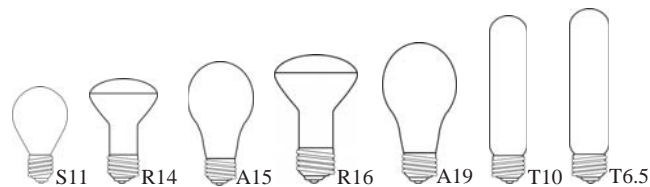
Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Incandescent symbols, footnotes and abbreviations are located on page 106.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>25 WATT</b>												
A15	Med.	6016		<b>A15CL25</b>	Clear Halco®	20/120	130	130	3000	C-9	3.5"	--
		6015		<b>A15FR25</b>	Frost Halco®	20/120	130	120	3000	C-9	3.5"	-
A19	Med.	6318		<b>A19CL25/5</b>	Clear Halco®	120	130	150	5000	C-9	4.25"	-
		103700	AI	<b>A19FR25</b>	Frost Halco®	120	130	146	1000	C-9	4.25"	-
		6319		<b>A19FR25/5</b>	Frost Halco®	120	130	150	5000	C-9	4.25"	-
		101159	10	<b>A19FR25/12V</b>	Frost Halco®	12/240	12	240	2000	C-6	4.25"	-
		101150		<b>A19BLU25T</b>	Trans. Blue Halco®	12/120	130	-	2000	C-9	4.25"	-
		101152		<b>A19GRN25T</b>	Trans. Green Halco®	12/120	130	-	2000	C-9	4.25"	-
		6335		<b>A19RED25C</b>	Ceramic Red Halco®	12/120	130	-	2000	C-9	4.25"	-
		101154		<b>A19RED25T</b>	Trans. Red Halco®	12/120	130	-	2000	C-9	4.25"	-
		101124		<b>A19TF25</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	4.25"	-
		6338		<b>A19YEL25C</b>	Ceramic Yellow Halco®	12/120	130	-	2000	C-9	4.25"	-
		101156		<b>A19YEL25T</b>	Trans. Yellow Halco®	12/120	130	-	2000	C-9	4.25"	-
PAR36	Screw Term.	814554	10	<b>PAR36NSP25/M</b>	Narrow Spot Major	1/12	12	150	2000	C-6	2.75"	9
		814556	10	<b>PAR36VWFL25/M</b>	Very Wide Flood Major	1/12	12	150	2000	C-6	2.75"	55
		65205	†,10	<b>PAR36WFL25</b>	Wide Flood	1/12	12	150	1000	C-6	2.75"	25x37
R14	Int.	9104		<b>R14INT25</b>	Flood Halco®	25/250	130	150	1500	CC-2V	2.64"	-
	Med.	9103		<b>R14MED25</b>	Flood Halco®	25/250	130	150	1500	CC-2V	2.64"	-
S11	Int.	9048		<b>S11N25</b>	Clear High-Intensity	25/500	130	200	1500	CC-2V	2.48"	-
T6.5	BA15d	9025		<b>T6.5CL25DC</b>	Clear	25/500	130	180	2500	C-8	5.56"	-
	Int.	9018		<b>T6.5CL25INT</b>	Clear	25/500	130	180	2500	C-8	5.5"	-
T8	BA15d	9034		<b>T8CL25DC</b>	Clear	25/500	130	180	2500	C-8	2.63"	-
	Int.	9032		<b>T8CL25INT</b>	Clear	25/500	130	180	2500	C-8	2.63"	-
T10	Med.	9012		<b>T10CL25</b>	Clear	25/200	130	180	2500	C-5V	5"	-
		9013		<b>T10FR25</b>	Frost	25/200	130	180	2500	C-5V	5"	-
		106420	x,N	<b>T10FR25/ND</b>	Frost Neodymium PureLite®	10/50	120	135	5000	CC-9	5"	-
<b>30 WATT</b>												
R20	Med.	9110	6	<b>R20FL30</b>	Flood Halco®	10/100	130	140	3000	C-9	3.93"	-
<b>30/70/100 WATT</b>												
A21	Med.	8009	1	<b>A21SW3W100</b>	Soft White 3-Way 30/70/100 Halco®	12/60	130	260/ 650/ 940	2500	CC-8	5.25"	-
<b>35 WATT</b>												
PAR14	Med.	107548	N \$,18	<b>HP14FL35</b>	Flood Prism®	10/40	130	300	3000	CC-8	2.44"	50
PAR20	Med.	107610	N \$,18	<b>HP20NFL35</b>	Narrow Flood Prism®	15	130	450	3000	CC-8	3.23"	30
PAR36	Screw Term	107794	\$,17	<b>HP36NSP35/HX</b>	Narrow Spot HaloXen®	1/12	12	540	5000	C-6	2.75"	12
		107796	\$,17	<b>HP36VNSP35/HX</b>	Very Narrow Spot HaloXen®	1/12	12	540	5000	C-6	2.75"	5
		107798	\$,17	<b>HP36WFL35/HX</b>	Wide Flood HaloXen®	1/12	12	540	5000	C-6	2.75"	32

(E) Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

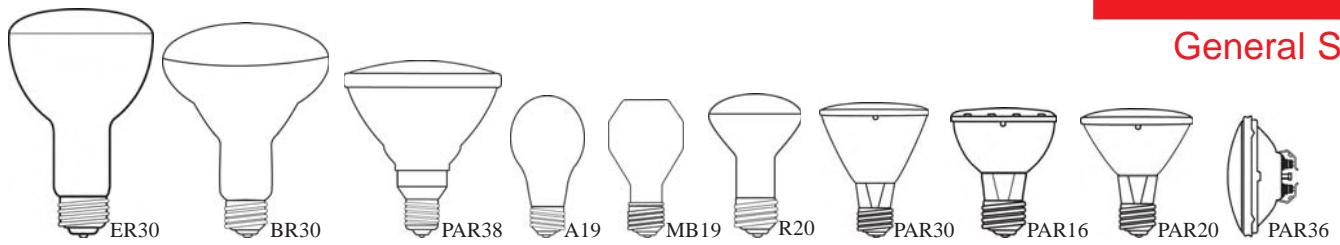
## General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread	
<b>40 WATT</b>													
A15	Cand.	10005	†	<b>A15CL40/E12</b>	Clear Halco®	20/120	120	350	2000	C-9	3.5"	-	
		10006	†	<b>A15WH40/E12</b>	White Halco®	20/120	120	310	2000	C-9	3.5"	-	
	Int.	10009	†	<b>A15CL40/E17</b>	Clear Halco®	20/120	120	350	2000	C-9	3.5"	-	
		10010	†	<b>A15WH40/E17</b>	White Halco®	20/120	120	310	2000	C-9	3.5"	-	
	Med.	6017			<b>A15CL40</b>	Clear Halco®	20/120	130	300	3000	C-9	3.5"	-
		6018			<b>A15FR40</b>	Frost Halco®	20/120	130	290	3000	C-9	3.5"	-
		6146			<b>A15TF40</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	3.5"	-
A19	Med.	103710	AI	<b>A19CL40</b>	Clear Halco®	120	130	340	1500	C-9	4.25"	-	
		6324			<b>A19CL40/5</b>	Clear Halco®	120	130	280	5000	C-9	4.25"	-
		103702	AI	<b>A19FR40</b>	Frost Halco®	120	130	325	1500	C-9	4.25"	-	
		6320			<b>A19FR40/5</b>	Frost Halco®	120	130	280	5000	C-9	4.25"	-
		103022	x		<b>A19FR40/P10</b>	Frost Prism® Ultra Life®	20/120	120	230	10000	C-9M	4.25"	-
		103520	x,N		<b>A19FR40/20</b>	Frost Prism® Ultra Life®	20/120	120	275	20000	C-9M	4.25"	-
		6220			<b>A19SW40/120</b>	Soft White Halco®	120	120	300	1500	CC-6	4.25"	-
		8013			<b>A19BG40</b>	Yellow Bug Halco®	20/120	130	-	2000	C-9	4.25"	-
		101151			<b>A19BLU40T</b>	Transparent Blue Halco®	12/120	130	-	2000	C-9	4.25"	-
		101153	x		<b>A19GRN40T</b>	Transparent Green Halco®	12/120	130	-	2000	C-9	4.25"	-
		101155			<b>A19RED40T</b>	Transparent Red Halco®	12/120	130	-	2000	C-9	4.25"	-
		101125			<b>A19TF40</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	4.25"	-
		6354			<b>A19YEL40C</b>	Ceramic Yellow Halco®	12/120	130	-	2000	C-9	4.25"	-
		101157	x		<b>A19YEL40T</b>	Transparent Yellow Halco®	12/120	130	-	2000	C-9	4.25"	-
R14	Int.	9101		<b>R14INT40</b>	Flood Halco®	25/250	130	260	1500	CC-2V	2.64"	-	
	Med.	9100		<b>R14MED40</b>	Flood Halco®	25/250	130	260	1500	CC-2V	2.64"	-	
R16	Med.	9127		<b>R16MED40</b>	Flood Halco®	25/500	130	235	3000	C-9	3.66"	-	
		129127			<b>R16MED40/120</b>	Flood Halco®	25/500	120	235	3000	C-9	3.66"	-
		104106			<b>R16SP40</b>	Spot	25/500	130	235	3000	CC-2V	3.66"	-
S11	Int.	9050		<b>S11N40</b>	Clear High-Intensity	25/500	130	370	1500	CC-2V	2.48"	-	
T6.5	Int.	106111		<b>T6.5CL40INT</b>	Clear	25/500	130	350	2500	C-8	5.5"	-	
T10	Med.	9014		<b>T10CL40</b>	Clear	25/200	130	280	2500	C-5V	5"	-	
		9015			<b>T10FR40</b>	Frost	25/200	130	280	2500	C-5V	5"	-
		106228			<b>T10TF40</b>	Silicone Coated	25/200	130	-	-	C-5V	5"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Incandescent symbols, footnotes and abbreviations are located on page 106.

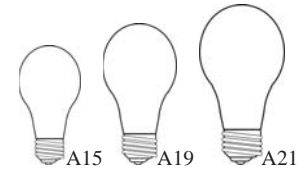
General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>45 WATT</b>												
PAR16	Med.	107502	N \$,18	HP16NFL45	Narrow Flood Prism®	15	130	500	3000	CC-2V	3.31"	30
PAR20	Med.	70100	N \$,18	HP20NFL45/HX	Narrow Flood HaloXen®	15	125	560	3000	CC-8	3.23"	30
PAR38	Med.	107564	ⓔ N \$,19	HP38FL45	Flood Prism®	15	130	500	3000	CC-8	5.32"	30
		107690	ⓔ N \$,19	HP38FL45/120	Flood Prism®	15	120	500	3000	CC-8	5.32"	30
		107580	ⓔ N \$,19	HP38SP45	Spot Prism®	15	130	500	3000	CC-8	5.32"	10
R20	Med.	10100	†,6	R20FL45	Flood Halco®	10/100	130	330	3000	C-9	3.93"	-
<b>50 WATT</b>												
A19	Med.	101160	10	A19FR50/12V	Frost Halco®	12/240	12	580	1500	C-6	4.25"	-
		101123		A19RS50	Rough Service Halco®	20/120	130	580	2500	C-9	4.25"	-
BR30	Med.	104058	6	BR30FL50	Flood Halco®	24	130	300	5000	C-9	5.37"	-
ER30	Med.	9113	5,7	ER30FL50/P5	Flood Prism® Long Life Plus™	12/60	130	360	5000	C-9M	6.25"	-
MB19	Med.	108850	x,\$	MB19FR50	Frost Halogen Prism®	1/12	130	600	2500	CC-8	4.25"	-
PAR20	Med.	107674	N \$,18	HP20FL50	Flood Prism®	15	130	560	3000	CC-8	3.23"	40
		107624	N \$,18	HP20NFL50	Narrow Flood Prism®	15	130	560	3000	CC-8	3.23"	30
		107660	N \$,18	HP20NFL50/120	Narrow Flood Prism®	15	120	560	3000	CC-8	3.23"	30
		107626	N \$,18	HP20SP50	Spot Prism®	15	130	560	3000	CC-8	3.23"	10
		107852	N \$,18	HP20SP50/120	Spot Prism®	15	120	560	3000	CC-8	3.23"	10
PAR30	Med.	107520	ⓔ N \$,18	HP30FL50	Flood Prism®	15	130	700	3000	CC-8	3.62"	40
		107854	ⓔ N \$,18	HP30FL50/120	Flood Prism®	15	120	700	3000	CC-8	3.62"	40
		107522	ⓔ N \$,18	HP30FL50L	Flood Long Neck Prism®	15	130	650	3000	CC-8	4.75"	40
		107528	ⓔ N \$,18	HP30SP50	Spot Prism®	15	130	700	3000	CC-8	3.62"	10
		107530	ⓔ N \$,18	HP30SP50L	Spot Long Neck Prism®	15	130	650	3000	CC-8	4.75"	10
PAR36	Screw Term.	107782	17	HP36NSP50/HX	Narrow Spot HaloXen®	1/12	12	910	5000	C-6	2.75"	12
		107784	17	HP36VNSP50/HX	Very Narrow Spot HaloXen®	1/12	12	910	5000	C-6	2.75"	5
		107786	17	HP36WFL50/HX	Wide Flood HaloXen®	1/12	12	910	5000	C-6	2.75"	32
		816540	10	PAR36NSP50/M	Narrow Spot Major	1/12	12	330	2000	C-6	2.75"	10
		816542	10	PAR36VWFL50/M	Very Wide Flood	1/12	12	330	2000	C-6	2.75"	55
		65210	†,10	PAR36WFL50	Wide Flood	1/12	12	330	2000	C-6	2.75"	39x27
R20	Med.	104200	6	R20AMB50	Amber Halco®	10/100	130	-	2500	C-9	3.93"	-
		9146	6	R20BLU50	Blue Halco®	10/100	130	-	2500	C-9	3.93"	-
		9150	6	R20DPNK50	Dawn Pink Halco®	10/100	130	-	2500	C-9	3.93"	-
		9141	6	R20GRN50	Green Halco®	10/100	130	-	2500	C-9	3.93"	-
		9108	6	R20PNK50	Pink Halco®	10/100	130	-	2500	C-9	3.93"	-
		9142	6	R20RED50	Red Halco®	10/100	130	-	2500	C-9	3.93"	-
		104016	6	R20TF50	Silicone Coated Halco®	10/100	130	-	-	C-9	3.93"	-

ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Incandescent symbols, footnotes and abbreviations are located on page 106.

## General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
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### 50/100/150 WATT

A21	Med.	8010	1	<b>A21SW3W150</b>	Soft White 3-Way 50/100/150 Halco®	12/60	130	560/ 1200/ 1760	2500	CC-8	5.25"	-
		101240	N,1	<b>A21FR50/150/ND</b>	Frost 3-Way 50/100/150 Neodymium PureLite®	12/60	120	380/ 1000/ 1380	5000	CC-8	5.25"	-

### 54 WATT

A19	Med.	288584	\$	<b>A19FR54/10</b>	Frost Prism® Ultra Life®	20/120	130	450	10000	C-9M	4.25"	-
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### 60 WATT

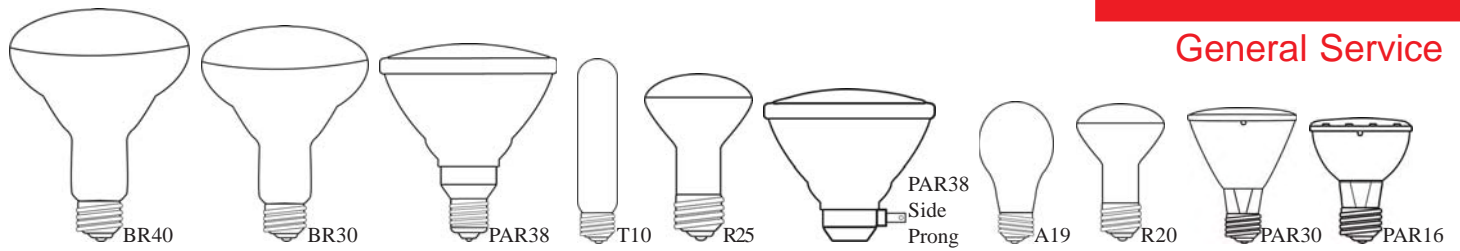
A15	Cand.	10007	†	<b>A15CL60/E12</b>	Clear Halco®	20/120	120	530	2000	C-9	3.5"	-
		10008	†	<b>A15WH60/E12</b>	White Halco®	20/120	120	520	2000	C-9	3.5"	-
	Int.	10011	†	<b>A15CL60/E17</b>	Clear Halco®	20/120	120	530	2000	C-9	3.5"	-
		10012	†	<b>A15WH60/E17</b>	White Halco®	20/120	120	520	2000	C-9	3.5"	-
	Med.	6117		<b>A15CL60</b>	Clear Halco®	20/120	130	530	3000	C-9	3.5"	-
		126117		<b>A15CL60/120</b>	Clear Halco®	20/120	120	620	1500	C-9	3.5"	-
		101234	x,N	<b>A15CL60/ND</b>	Clear Neodymium PureLite®	10/50	120	530	5000	CC-9	3.5"	-
		6118		<b>A15FR60</b>	Frost Halco®	20/120	130	520	3000	C-9	3.5"	-
		6147		<b>A15TF60</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	3.5"	-
A19	Med.	103712	AI	<b>A19CL60</b>	Clear Halco®	120	130	620	1500	C-9	4.25"	-
		6225		<b>A19CL60/120</b>	Clear Halco®	120	120	590	1500	CC-6	4.25"	-
		6325		<b>A19CL60/5</b>	Clear Halco®	120	130	520	5000	C-9	4.25"	-
		103010		<b>A19CL60/P10</b>	Clear Prism® Ultra Life®	20/120	120	480	10000	C-9M	4.25"	-
		101242	N	<b>A19CL60/ND</b>	Clear Neodymium PureLite®	20/120	120	600	5000	CC-6	4.25"	-
		101180	3	<b>A19CL60/SB</b>	Clear Silver Bowl Prism®	12/120	130	-	2500	C-9	4.25"	-
		103704	AI	<b>A19FR60</b>	Frost Halco®	120	130	590	1500	C-9	4.25"	-
		6321		<b>A19FR60/5</b>	Frost Halco®	120	130	520	5000	C-9	4.25"	-
		103024		<b>A19FR60/P10</b>	Frost Prism® Ultra Life®	20/120	120	480	10000	C-9M	4.25"	-
		103522	x,N	<b>A19FR60/20</b>	Frost Prism® Ultra Life®	20/120	120	570	20000	C-9M	4.25"	-
		101194	N	<b>A19FR60/ND</b>	Frost Neodymium PureLite®	20/120	120	600	5000	CC-6	4.25"	-
		101184	3	<b>A19FR60/SB</b>	Inside Frost Silver Bowl Prism®	12/120	130	-	5000	C-9	4.25"	-
		6221		<b>A19SW60/120</b>	Soft White Halco®	120	120	530	1500	C-9	4.25"	-
		8011		<b>A19BG60</b>	Yellow Bug Halco®	20/120	130	-	2000	C-9	4.25"	-
		6344	x	<b>A19BLU60C</b>	Ceramic Blue Halco®	12/120	130	-	2000	C-9	4.25"	-
		101196	x	<b>A19GRO60</b>	Plant Grow Halco®	12/120	120	480	2000	C-9	4.25"	-
		6352		<b>A19RED60C</b>	Ceramic Red Halco®	12/120	130	-	2000	C-9	4.25"	-
		6151		<b>A19RS60</b>	Rough Service Halco®	20/120	130	780	2500	C-9	4.25"	-
		6141		<b>A19TF60</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	4.25"	-
		6356		<b>A19YEL60C</b>	Ceramic Yellow Halco®	12/120	130	-	2000	C-9	4.25"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Incandescent symbols, footnotes and abbreviations are located on page 106.



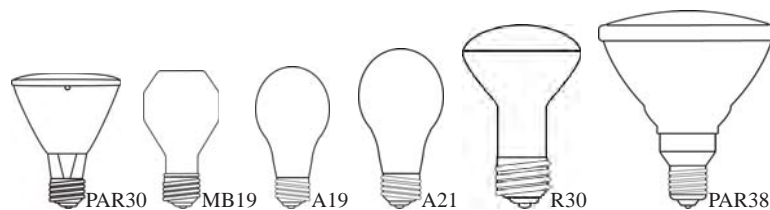
General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>60 WATT (cont'd)</b>												
PAR16	Med.	107616	N \$,18	HP16NFL60	Narrow Flood Prism®	15	130	680	3000	CC-8	3.31"	30
		107850	N \$,18	HP16NFL60/120	Narrow Flood Prism®	15	120	680	3000	CC-8	3.31"	30
		107504	N \$,18	HP16NSP60	Narrow Spot Prism®	15	130	680	3000	CC-8	3.31"	10
PAR38	Med.	107568	EN \$,19	HP38FL60	Flood Prism®	15	130	800	3000	CC-8	5.37"	30
		107754	EN \$,19	HP38FL60/FR	Flood Frost Prism®	15	130	660	3000	CC-8	5.37"	-
R20	Med.	101260	N,6	R20FL60/ND	Flood Neodymium PureLite®	10/100	120	300	5000	CC-6	3.93"	-
R25	Med.	101264	x,N,6	R25FL60/ND	Flood Neodymium PureLite®	6/24	120	400	5000	CC-6	4.8"	-
T10	Med.	9016		T10CL60	Clear	25/200	130	420	2500	C-5V	5"	-
		9017		T10FR60	Frost	25/200	130	420	2500	C-5V	5"	-
<b>65 WATT</b>												
BR30	Med.	104070	6	BR30FL65	Flood Halco®	24	130	580	5000	C-9	5.37"	-
		124070	6	BR30FL65/120	Flood Halco®	24	120	510	2000	C-9	5.37"	-
		103620	6	BR30FL65/P5	Flood Prism® Long Life Plus	24	130	480	5000	C-9M	5.37"	-
		103110	6	BR30FL65/P10	Flood Prism® Ultra Life®	24	120	420	10000	C-9M	5.37"	-
		103528	N,6	BR30FL65/20	Flood Prism® Ultra Life®	24	120	480	20000	C-9M	5.37"	-
		404014	6	BR30SP65/5	Spot Halco®	24	130	-	5000	C-9	5.37"	-
		404028	6	BR30AMB65/5	Amber Prism®	12/24	130	-	5000	C-9	5.37"	-
		404030	6	BR30BLU65/5	Blue Prism®	12/24	130	-	5000	C-9	5.37"	-
		404031	6	BR30DPNK65/5	Dawn Pink Prism®	12/24	130	-	5000	C-9	5.37"	-
		404039	6	BR30GRN65/5	Green Prism®	12/24	130	-	5000	C-9	5.37"	-
		404046	6	BR30PNK65/5	Pink Prism®	12/24	130	-	5000	C-9	5.37"	-
		404049	6	BR30RED65/5	Red Prism®	12/24	130	-	5000	C-9	5.37"	-
		404051	6	BR30TF65	Silicone Coated Prism®	1/24	130	-	5000	C-9	5.37"	-
		404053	6	BR30YEL65/5	Yellow Prism®	12/24	130	-	5000	C-9	5.37"	-
BR40	Med.	404076	6	BR40FL65/P5	Flood Prism® Long Life Plus	24	130	550	5000	C-9M	6.56"	-
PAR38	Side Prong	812846		PAR3FL65/M	Flood Major	1/12	120	675	2000	CC-6	4.31"	30
<b>68 WATT</b>												
A19	Med.	288580	11	A19FR68/10	Frost Prism® Ultra Life®	20/120	130	630	10000	C-9M	4.25"	-
<b>70 WATT</b>												
PAR30	Med.	70200	EN \$,18	HP30FL70/HX	Flood HaloXen®	15	125	1160	5000	CC-8	3.62"	40
		70201	EN \$,18	HP30FL70L/HX	Flood Long Neck HaloXen®	15	125	1080	5000	CC-8	4.75"	40

(E) Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

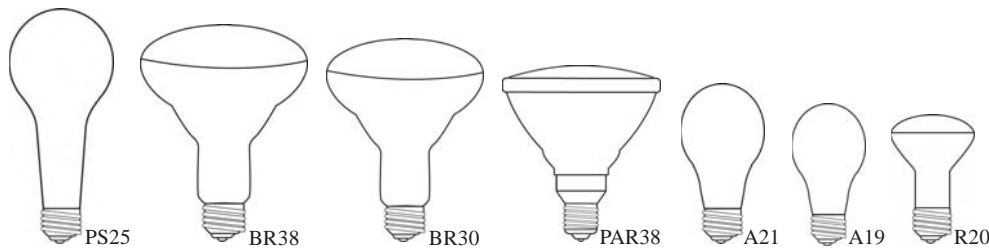
## General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>75 WATT</b>												
A19	Med.	103714	AI	<b>A19CL75</b>	Clear Halco®	120	130	860	1500	C-9	4.25"	-
		6326		<b>A19CL75/5</b>	Clear Halco®	120	130	700	5000	C-9	4.25"	-
		103706	AI	<b>A19FR75</b>	Frost Halco®	120	130	820	1500	C-9	4.25"	-
		6322		<b>A19FR75/5</b>	Frost Halco®	120	130	700	5000	C-9	4.25"	-
		103026		<b>A19FR75/P10</b>	Frost Prism® Ultra Life®	20/120	120	620	10000	C-9M	4.25"	-
		103524	x,N	<b>A19FR75/20</b>	Frost Prism® Ultra Life®	20/120	120	710	20000	C-9M	4.25"	-
		6222		<b>A19SW75/120</b>	Soft White Halco®	120	120	780	1500	CC-6	4.25"	-
		6152		<b>A19RS75</b>	Rough Service Halco®	20/120	130	1100	2500	C-9	4.25"	-
		6142		<b>A19TF75</b>	Silicone Coated Halco®	20/120	130	-	2000	C-9	4.25"	-
A21	Med.	101244	x,N	<b>A21CL75/ND</b>	Clear Neodymium PureLite®	12/60	120	710	5000	C-9M	5"	-
		101248	N	<b>A21FR75/ND</b>	Frost Neodymium PureLite®	12/60	120	710	5000	CC-6	5"	-
MB19	Med.	108860		<b>MB19FR75</b>	Frost Halogen Prism®	1/12	130	1050	3000	CC-8	4.25"	-
PAR30	Med.	107633	(E) N \$,18	<b>HP30FL75</b>	Flood Prism®	15	130	1150	3000	CC-8	3.62"	40
		107670	(E) N \$,18	<b>HP30FL75/120</b>	Flood Prism®	15	120	1150	3000	CC-8	3.62"	40
		107758	(E) N \$,18	<b>HP30FL75/FR</b>	Flood Frost Prism®	15	130	980	3000	CC-8	3.62"	-
		107634	(E) N \$,18	<b>HP30FL75L</b>	Flood Long Neck Prism®	15	130	1100	3000	CC-8	4.75"	40
		107672	(E) N \$,18	<b>HP30FL75L/120</b>	Flood Long Neck Prism®	15	120	1100	3000	CC-8	4.75"	40
		107820	(E) N \$,18	<b>HP30FL75L/FR</b>	Frost Long Neck Flood Prism®	15	130	980	3000	CC-8	4.75"	-
		107540	(E) N \$,18	<b>HP30SP75</b>	Spot Prism®	15	130	1150	3000	CC-8	3.62"	10
		107858	(E) N \$,18	<b>HP30SP75/120</b>	Spot Prism®	15	120	1150	3000	CC-8	3.62"	10
		107542	(E) N \$,18	<b>HP30SP75L</b>	Spot Long Neck Prism®	15	130	1100	3000	CC-8	4.75"	10
		107860	(E) x,N \$,18	<b>HP30SP75L/120</b>	Spot Long Neck Prism®	15	120	1100	3000	CC-8	4.75"	10
		107572	(E) N \$,18	<b>HP30WFL75L</b>	Wide Flood Long Neck Prism®	15	130	1100	3000	CC-8	4.75"	60
PAR38	Med.	107576	(E) N \$,19	<b>HP38FL75</b>	Flood Prism®	15	130	1100	3000	CC-8	5.32"	30
		107864	(E) N \$,19	<b>HP38FL75/120</b>	Flood Prism®	15	120	1100	3000	CC-8	5.32"	30
R30	Med.	104017	N,6	<b>R30FL75/ND</b>	Flood Neodymium PureLite®	6/24	120	500	5000	CC-6	5.12"	-
<b>85 WATT</b>												
PAR38	Med.	70403	(E) N \$,19	<b>HP38FL85/HX</b>	Flood HaloXen®	15	125	1420	5000	CC-8	5.32"	30
<b>90 WATT</b>												
A19	Med.	288582	(E) \$,11	<b>A19FR90/10</b>	Frost Prism® Ultra Life®	20/120	130	920	10000	C-9M	4.25"	-
PAR38	Med.	107644	(E) N \$,19	<b>HP38FL90</b>	Flood Prism®	15	130	1350	3000	CC-8	5.32"	30
		107696	(E) N \$,19	<b>HP38FL90/120</b>	Flood Prism®	15	120	1350	3000	CC-8	5.32"	30
		107840	(E) N \$,19	<b>HP38FL90/FR</b>	Frost Flood Prism®	15	130	1100	3000	CC-8	5.32"	-
		107584	(E) N \$,19	<b>HP38SP90</b>	Spot Prism®	15	130	1350	3000	CC-8	5.32"	10
		107866	(E) N \$,19	<b>HP38SP90/120</b>	Spot Prism®	15	120	1350	3000	CC-8	5.32"	10

(E) Means this lamp meets Federal Minimum Efficiency standards.

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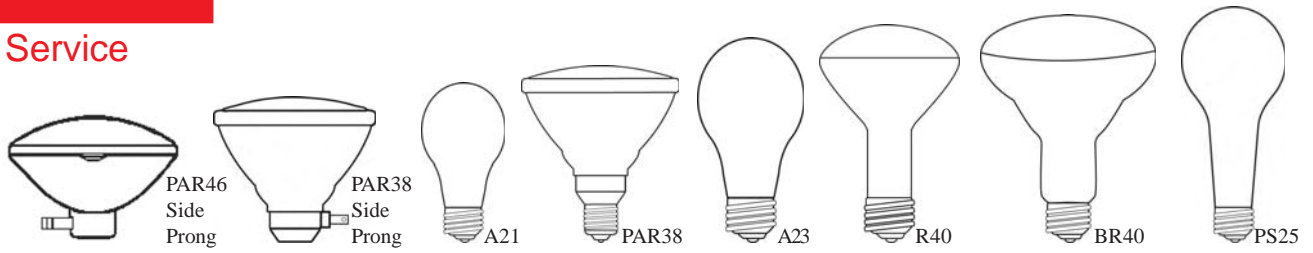
Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>100 WATT</b>												
A19	Med.	103716	AI	<b>A19CL100</b>	Clear Halco®	120	130	1150	1500	C-9	4.25"	-
		6227		<b>A19CL100/120</b>	Clear Halco®	120	120	1150	1500	CC-6	4.25"	-
		6327		<b>A19CL100/5</b>	Clear Halco®	120	130	950	5000	C-9	4.25"	-
		103014		<b>A19CL100/P10</b>	Clear Prism® Ultra Life®	20/120	120	870	10000	C-9M	4.25"	-
		101182	3,8	<b>A19CL100/SB</b>	Clear Silver Bowl Prism®	12/120	130	830	5000	C-9	4.25"	-
		103708	AI	<b>A19FR100</b>	Frost Halco®	120	130	1100	1500	C-9	4.25"	-
		6323		<b>A19FR100/5</b>	Frost Halco®	120	130	950	5000	C-9	4.25"	-
		103028		<b>A19FR100/P10</b>	Frost Prism® Ultra Life®	20/120	120	870	10000	C-9M	4.25"	-
		103526	x,N	<b>A19FR100/20</b>	Frost Prism® Ultra Life®	20/120	120	1100	20000	C-9M	4.25"	-
		6200		<b>A19FR100/1750</b>	Frost High Lumen Halco®	120	120	1750	750	CC-6	4.25"	-
		6223		<b>A19SW100/120</b>	Soft White Halco®	120	120	1050	1500	CC-6	4.25"	-
		6153		<b>A19RS100</b>	Rough Service Halco®	20/120	130	1150	2500	C-9	4.25"	-
		6143		<b>A19TF100</b>	Silicone Coated Halco®	20/120	130	-	-	C-9	4.25"	-
A21	Med.	103572		<b>A21CL100/P5</b>	Clear Prism® Long Life Plus	12/60	130	1050	5000	C-9M	5"	-
		101246	N	<b>A21CL100/ND</b>	Clear Neodymium PureLite®	12/60	120	1050	5000	CC-6	5"	-
		103576		<b>A21FR100/P5</b>	Frost Prism® Long Life Plus™	12/60	130	1050	5000	C-9M	5"	-
		101197	N	<b>A21FR100/ND</b>	Frost Neodymium PureLite®	12/60	120	1050	5000	CC-6	5"	-
		101190	3,8	<b>A21FR100/SB</b>	Inside Frost Silver Bowl Prism®	12/60	130	800	5000	C-9	5"	-
		6041		<b>A21TF100/P5</b>	Silicone Coated Prism®	12/60	130	-	-	C-9M	5"	-
BR30	Med.	104026	△,6,10	<b>BR30CL100/12V</b>	Clear Pool Lamp Halco®	12/24	12	1200	2000	C-6	5.37"	-
BR38	Med.	404112	9	<b>BR38AMB100</b>	Amber Flood Halco®	12/24	130	-	5000	C-9	5.5"	-
		404113	9	<b>BR38BLU100</b>	Blue Flood Halco®	12/24	130	-	5000	C-9	5.5"	-
		404114	9	<b>BR38GRN100</b>	Green Flood Halco®	12/24	130	-	5000	C-9	5.5"	-
		404116	9	<b>BR38RED100</b>	Red Flood Halco®	12/24	130	-	5000	C-9	5.5"	-
		404119	9	<b>BR38YEL100</b>	Yellow Flood Halco®	12/24	130	-	5000	C-9	5.5"	-
PAR38	Med.	70402	ⓔN \$,19	<b>HP38FL100</b>	Flood Prism®	15	130	1500	3000	CC-8	5.32"	30
R20	Med.	104020	△,6,10	<b>R20CL100/12V</b>	Clear Pool Lamp Halco®	10/100	12	950	2000	C-6	3.55"	-
		9116	6	<b>R20FL100/S</b>	Flood Short Halco®	10/100	125	900	2500	C-9	3.55"	-

**100/200/300 WATT**

PS25	Mogul	8005	1	<b>PS25SW3W300</b>	Soft White 3-Way 100/200/300 Prism®	12/60	120	1200/ 2600/ 3800	1200	CC-6	6.93"	-
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ⓔ Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

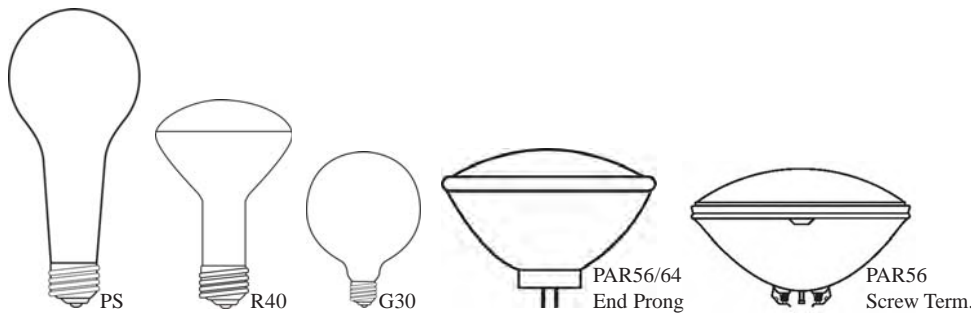
## General Service



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>120 WATT</b>												
BR40	Med.	404065	6	<b>BR40FL120/5/TEF</b>	Silicone Coated Prism®	1/24	130	-	-	C-9	6.56"	-
PAR38	Med.	107560	(E) N \$,19	<b>HP38FL120</b>	Flood Prism®	15	130	1820	3000	CC-8	5.37"	30
		107868	(E) N \$,19	<b>HP38FL120/120</b>	Flood Prism®	15	120	1820	3000	CC-8	5.37"	30
<b>125 WATT</b>												
BR40	Med.	204035	△,6	<b>BR40CL125/1</b>	Clear Infrared Prism®	12	120	-	6000	C-9	6.56"	-
<b>150 WATT</b>												
A21	Med.	103574		<b>A21CL150/P5</b>	Clear Prism® Long LifePlus™	12/60	130	1700	5000	C-9M	5"	-
		103570		<b>A21FR150/P5</b>	Frost Prism® Long LifePlus™	12/60	130	1700	5000	C-9M	5"	-
		103040		<b>A21FR150/P10</b>	Frost Prism® Ultra Life®	12/60	120	1350	10000	C-9M	5"	-
		101198	N	<b>A21FR150/ND</b>	Frost Neodymium PureLite®	12/60	120	1600	5000	CC-6	5"	-
		6043		<b>A21TF150/P5</b>	Silicone Coated Prism®	1/60	130	-	-	C-9M	5"	-
A23	Med.	401220		<b>A23CL150/P5</b>	Clear Prism® Long Life Plus™	12/60	130	1600	5000	C-9M	6.12"	-
		101222		<b>A23FR150/P5</b>	Frost Prism® Long Life Plus™	12/60	130	1700	5000	C-9M	6.12"	-
PAR38	Side Prong	19503		<b>PAR3FL150/M</b>	Flood Major	1/12	120	4000cp	2000	CC-6	4.31"	36
PS25	Med.	401303		<b>PS25CL150/P5</b>	Clear Prism® Long Life Plus™	12/60	130	1600	5000	C-9M	6.93"	-
		401301		<b>PS25FR150/P5</b>	Frost Prism® Long Life Plus™	12/60	130	1600	5000	C-9M	6.93"	-
		401345	3	<b>PS25TF150/P5</b>	Silicone Coated Prism® Long Life Plus™	1/60	130	-	-	C-9M	6.93"	-
R40	Med.	101268	N	<b>R40FL150/ND</b>	Flood Neodymium PureLite®	12/24	120	1100	5000	CC-6	6.56"	-
		104012	x	<b>R40GRO150</b>	Plant Grow Halco®	12	120	-	5000	C-9	6.56"	-
<b>200 WATT</b>												
A23	Med.	6030		<b>A23CL200/P5</b>	Clear Prism® Long Life Plus™	12/60	130	2400	5000	C-9M	6.12"	-
		6031		<b>A23FR200/P5</b>	Frost Prism® Long Life Plus™	12/60	130	2400	5000	C-9M	6.12"	-
PAR46	Med Side Prong	65215		<b>PAR46MFL200</b>	Medium Flood	1/12	120	2270	2000	CC-13	3.75"	12x8
		820115		<b>PAR46NSP200</b>	Narrow Spot Major	1/12	120	2270	2000	CC-13	3.75"	12x8
PS25	Med.	401300		<b>PS25CL200/P5</b>	Clear Prism® Long Life Plus™	12/60	130	2400	5000	C-9M	6.93"	-
		401302		<b>PS25FR200/P5</b>	Frost Prism® Long Life Plus™	12/60	130	2400	5000	C-9M	6.93"	-
		401347	3	<b>PS25TF200/P5</b>	Silicone Coated Prism® Long Life Plus™	1/60	130	-	-	C-9M	6.93"	-
<b>250 WATT</b>												
BR40	Med.	404068	△,6,11	<b>BR40CL250/1</b>	Clear Heat Prism®	12	120	-	6000	C-9	6.56"	-
		404066	△,6,11,16	<b>BR40CL250/1/TEF</b>	Clear Heat Shatter Proof Prism®	1/12	120	-	-	C-9	6.56"	-
PAR38	Med.	815558		<b>Q250PAR/FL</b>	Halogen Flood Major	1/6	120	3600	4200	CC-8	5.31"	30
		815526		<b>Q250PAR/SP</b>	Halogen Spot Major	1/6	120	3600	4200	CC-8	5.31"	10
R40	Med.	104044	11	<b>R40RED250/10</b>	Red Heat Prism®	12	120	-	5000	C-9	6.56"	-
		404071	11,16	<b>R40RED250/10/TEF</b>	Red Heat Shatter Proof Prism®	1/12	120	-	-	C-9	6.56"	-

(E) Means this lamp meets Federal Minimum Efficiency standards.

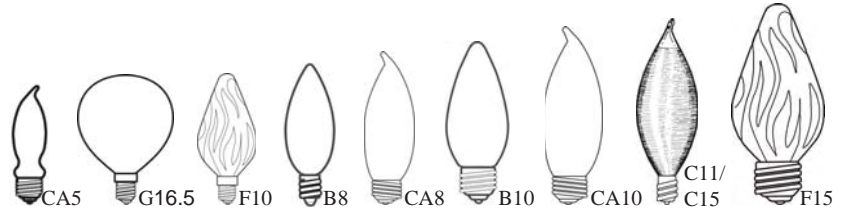
Incandescent symbols, footnotes and abbreviations are located on page 106.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>300 WATT</b>												
PAR56	End Prong	65220	†,4,13	<b>PAR56MFL300</b>	Medium Flood	1/12	120	3840	2000	CC-13	5"	23x11
		820803	4,13	<b>PAR56NSP300</b>	Narrow Spot Major	1/12	120	3840	2000	CC-13	5"	10x8
		65230	†,4,13	<b>PAR56WFL300</b>	Wide Flood	1/12	120	3840	2000	CC-13	5"	37x18
	Screw Term.	65225	†,4,10,13	<b>PAR56WFL300/12V</b>	Wide Flood	1/12	12	6000	1000	CC-13	5"	37x18
PS25	Med.	401305		<b>PS25CL300/P5</b>	Clear Prism® Long Life Plus™	12/60	130	3600	5000	C-9M	6.93"	-
		401306		<b>PS25FR300/P5</b>	Frost Prism® Long Life Plus™	12/60	130	3600	5000	C-9M	6.93"	-
PS30	Med.	401308		<b>PS30CL300/P5</b>	Clear Prism® Long Life Plus™	12/60	130	3600	5000	C-9M	8.06"	-
		401310		<b>PS30FR300/P5</b>	Frost Prism® Long Life Plus™	12/60	130	3600	5000	C-9M	8.06"	-
PS35	Mog.	401316		<b>PS35CL300/P5</b>	Clear Prism® Long Life Plus™	6/24	130	3600	5000	C-9M	9.37"	-
		401318		<b>PS35FR300/P5</b>	Frost Prism® Long Life Plus™	6/24	130	3600	5000	C-9M	9.37"	-
R40	Med.	104040	△,5,7,10,12,14	<b>R40FL300/12V</b>	Flood Pool Lamp Halco®	12/24	12	3300	2000	C-6	6.56"	-
		104035	△,5,7,12,14	<b>R40FL300/HG</b>	Flood Hard Glass Halco®	12/24	130	3500	5000	C-6	6.56"	-
<b>375 WATT</b>												
R40	Med.	104048	△,7,14	<b>R40CL375</b>	Clear Infrared Prism®	12/24	120	-	5000	C-9	6.56"	-
		104050	△,7,14,16	<b>R40CL375/TEF</b>	Shatter Proof Prism®	1/12	120	-	-	C-9	6.56"	-
<b>400 WATT</b>												
G30	Med.	5508	15	<b>400G/FL</b>	Clear Halco®	1/100	120	6800	800	C-5	5.1"	-
R40	Med.	104038	△,5,12,14	<b>R40FL400/HG</b>	Flood Hard Glass Halco®	12/24	120	4150	2000	CC-9	6.56"	-
<b>500 WATT</b>												
PAR56	Mog. End Prong	843495	4,13	<b>PAR56Q500MFL</b>	Halogen MFL Major	1/6	120	8000	4000	CC-6	5"	26x10
		843494	4,13	<b>PAR56Q500NSP</b>	Halogen NSP Major	1/6	120	8000	4000	CC-6	5"	13x8
		843496	4,13	<b>PAR56Q500WFL</b>	Halogen WFL Major	1/6	120	8000	4000	CC-6	5"	44x20
PAR64	Mog. End Prong	839409	13	<b>PAR64MFL500</b>	Medium Flood Major	1/12	120	6500	2000	CC-13	6"	23x11
		839406	13	<b>PAR64NSP500</b>	Narrow Spot Major	1/12	120	6500	2000	CC-13	6"	12x7
PS40	Mog.	124040		<b>PS40CL500/P5</b>	Clear Prism® Long Life Plus™	1/12	130	7800	5000	C-9M	9.76"	-
R40	Med.	104042	△,5,12,14	<b>R40FL500/HG</b>	Flood Hard Glass Halco®	12/24	120	5400	2000	CC-9	6.56"	-
	Mog.	821734	5,12,14	<b>R40FL500/3FL</b>	Flood Major	1/24	120	6500	2000	C-2V	7.25"	-
<b>1000 WATT</b>												
PAR64	Mog. End Prong	843498	4,14	<b>PAR64Q1000MFL</b>	Halogen MFL Major	1/6	120	19400	4000	CC-6	6"	28x12
PS52	Mog.	822260		<b>PS52CL1000</b>	Clear Major	1/12	130	23740	1000	CC-8	13"	-

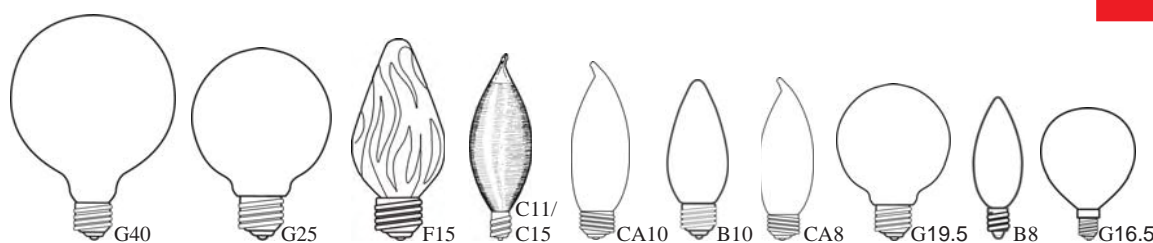
(E) Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

## Decorative



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>3 WATT</b>												
CA5	Cand.	2502	2	<b>CFTC3</b>	Clear Flicker Flame Halco®	25/500	130	-	1500	-	2.88"	-
CA10	Cand.	2008	2	<b>CFC3</b>	Clear Flicker Flame Halco®	25/500	130	-	1500	-	4.12"	-
	Med.	2510	2	<b>EFC3</b>	Clear Flicker Flame Halco®	25/500	130	-	1500	-	4.12"	-
<b>7.5 WATT</b>												
CA5	Cand.	2005	2	<b>CFTC7.5</b>	Clear Halco®	50/1000	130	40	1500	C-7A	2.88"	-
CA8	Cand.	2000	2	<b>CFCP7.5</b>	Clear 25mm Halco®	25/500	130	35	2000	C-7A	3.58"	-
<b>15 WATT</b>												
B8	Cand.	1020	2	<b>CTCP15</b>	Clear 25mm Halco®	25/500	130	95	3000	C-7A	3.15"	-
B10	Cand.	1001	2	<b>CTC15</b>	Clear 32mm Halco®	25/500	130	95	3000	C-7A	3.87"	-
CA8	Cand.	2020	2	<b>CFCP15</b>	Clear 25mm Halco®	25/500	130	95	3000	C-7A	3.58"	-
CA10	Cand.	2001	2	<b>CFC15</b>	Clear 32mm Halco®	25/500	130	95	3000	C-7A	4.12"	-
G16.5	Cand.	4001	2	<b>G16CL15</b>	Clear Halco®	25/500	130	95	3000	C-7A	3"	-
		4015	2	<b>G16WH15</b>	White Halco®	25/500	130	80	3000	C-7A	3"	-
<b>25 WATT</b>												
B8	Cand.	1021	2	<b>CTCP25</b>	Clear 25mm Halco®	25/500	130	220	3000	CC-2V	3.15"	-
B10	Cand.	1003	2	<b>CTC25</b>	Clear 32mm Halco®	25/500	130	220	3000	CC-2V	3.87"	-
		101280	x,N,2	<b>CTC25/ND</b>	Clear Neodymium PureLite®	10/50	120	140	5000	CC-2V	3.87"	-
		100192	2	<b>CTF25</b>	Frost 32mm Halco®	25/500	130	220	3000	CC-2V	3.87"	-
	E14	121023	†	<b>CTC25/E14</b>	Clear 32mm Halco®	25/500	120	220	3000	CC-2V	3.87"	-
	Med.	1012	2	<b>ETC25</b>	Clear 32mm Halco®	25/500	130	220	3000	CC-2V	3.87"	-
		1013	2	<b>ETF25</b>	Frost 32mm Halco®	25/500	130	220	3000	CC-2V	3.87"	-
CA8	Cand.	2021	2	<b>CFCP25</b>	Clear 25mm Halco®	25/500	130	220	3000	CC-2V	3.58"	-
CA10	Cand.	2003	2	<b>CFC25</b>	Clear 32mm Halco®	25/500	130	220	3000	CC-2V	4.12"	-
		2040	2,10	<b>CFC25/12V</b>	Clear 32mm Halco®	25/500	12	200	2000	C-6	4.12"	-
		2004	2	<b>CFF25</b>	Frost 32mm Halco®	25/500	130	220	3000	CC-2V	4.12"	-
	Med.	2012	2	<b>EFC25</b>	Clear 32mm Halco®	25/500	130	220	3000	CC-2V	4.12"	-
			2013	2	<b>EFF25</b>	Frost 32mm Halco®	25/500	130	220	3000	CC-2V	4.12"
C11	Cand.	100210	2	<b>C11SG25</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.02"	-
		100220	x,2	<b>C11SG25/AMB</b>	Amber Spun Glow Halco®	25/500	130	-	2000	CC-2V	4.02"	-
C15	Med.	100214	2	<b>C15SG25</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.49"	-
F10	Cand.	100186	x,2	<b>F10AMB25</b>	Amber Halco®	25/250	130	-	3000	CC-2V	3.13"	-
F15	Med.	3001	2	<b>F15CL25</b>	Clear Halco®	25/250	130	140	3000	C-9	4.5"	-
		3003	2	<b>F15AMB25</b>	Amber Halco®	25/250	130	-	3000	C-9	4.5"	-
G16.5	Cand.	4002	2	<b>G16CL25</b>	Clear Halco®	25/500	130	220	3000	CC-2V	3"	-
		101270	x,N,2	<b>G16CL25/ND</b>	Clear Neodymium PureLite®	10/50	120	140	5000	CC-2V	3"	-
		4016	2	<b>G16WH25</b>	White Halco®	25/500	130	170	3000	CC-2V	3"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Incandescent symbols, footnotes and abbreviations are located on page 106.



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
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**25 WATT (cont'd)**

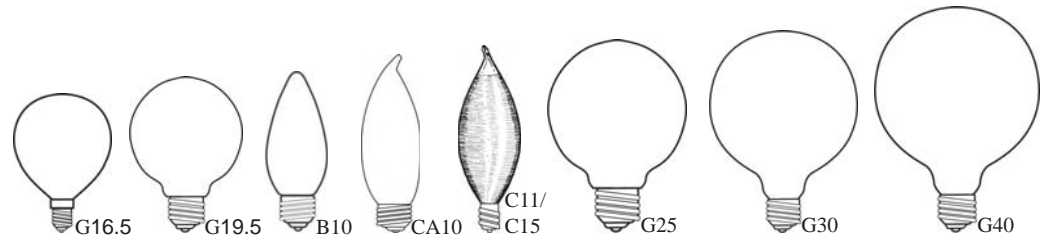
G19.5	Med.	104501	2	<b>G19CL25</b>	Clear Halco®	25/500	130	180	2000	C-9	3.5"	-
G25	Med.	5001		<b>G25CL25</b>	Clear Halco®	10/100	130	150	3500	C-9	4.5"	-
		5002		<b>G25WH25</b>	White Halco®	10/100	130	140	3500	C-9	4.5"	-

**40 WATT**

B8	Cand.	1023	2	<b>CTCP40</b>	Clear 25mm Halco®	25/500	130	370	3000	CC-2V	3.15"	-
B10	Cand.	1006	2	<b>CTC40</b>	Clear 32mm Halco®	25/500	130	370	3000	CC-2V	3.87"	-
		1007	2	<b>CTF40</b>	Frost 32mm Halco®	25/500	130	370	3000	CC-2V	3.87"	-
E14. Med.		121025	2	<b>CTC40/E14</b>	Clear 32mm Halco®	25/500	130	370	3000	CC-2V	3.87"	-
		1015	2	<b>ETC40</b>	Clear 32mm Halco®	25/500	130	370	3000	CC-2V	3.87"	-
		102148	2	<b>ETC40/TF</b>	Clear Silicone Coated	25/500	130	-	-	CC-2V	3.87"	-
		1016	2	<b>ETF40</b>	Frost 32mm Halco®	25/500	130	370	3000	CC-2V	3.87"	-
CA8	Cand.	2023	2	<b>CFCP40</b>	Clear 25mm Halco®	25/500	130	370	3000	CC-2V	3.58"	-
CA10	Cand.	2006	2	<b>CFC40</b>	Clear 32mm Halco®	25/500	130	370	3000	CC-2V	4.12"	-
		2007	2	<b>CFF40</b>	Frost 32mm Halco®	25/500	130	370	3000	CC-2V	4.12"	-
	Med.	2015	2	<b>EFC40</b>	Clear 32mm Halco®	25/500	130	370	3000	CC-2V	4.12"	-
		2016	2	<b>EFF40</b>	Frost 32mm Halco®	25/500	130	370	3000	CC-2V	4.12"	-
C11	Cand.	100212	2	<b>C11SG40</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.02"	-
		100222	x,2	<b>C11SG40/AMB</b>	Amber Spun Glow Halco®	25/500	130	-	2000	CC-2V	4.02"	-
C15	Med.	100216	2	<b>C15SG40</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.49"	-
		100224	2	<b>C15SG40/AMB</b>	Amber Spun Glow Halco®	25/500	130	-	2000	C-9	4.49"	-
F15	Med.	3004	2	<b>F15CL40</b>	Clear Halco®	25/250	130	300	3000	C-9	4.5"	-
		3006	2	<b>F15AMB40</b>	Amber Halco®	25/250	130	-	3000	C-9	4.5"	-
G16.5	Cand.	4003	2	<b>G16CL40</b>	Clear Halco®	25/500	130	370	3000	CC-2V	3"	-
		101272	x,N,2	<b>G16CL40/ND</b>	Clear Neodymium PureLite®	10/50	120	290	5000	CC-2V	3"	-
		4017	2	<b>G16WH40</b>	White Halco®	25/500	130	320	3000	CC-2V	3"	-
G19.5	Med.	104504	2	<b>G19WH40</b>	White Halco®	25/500	130	340	2000	C-9	3.5"	-
G25	Med.	5003		<b>G25CL40</b>	Clear Halco®	10/100	130	300	3500	C-9	4.5"	-
		125003		<b>G25CL40/120</b>	Clear Halco®	10/100	120	300	3500	C-9	4.5"	-
		102390	N	<b>G25CL40/ND</b>	Clear Neodymium PureLite®	10/100	120	310	5000	CC-6	4.5"	-
		102380		<b>G25CL40/SB</b>	Clear Silver Bowl Prism®	10/100	130	-	3500	C-9	4.5"	-
		102400	N	<b>G25FR40/ND</b>	Frost Neodymium PureLite®	10/100	120	310	5000	CC-6	4.5"	-
		5004		<b>G25WH40</b>	White Halco®	10/100	130	270	3500	C-9	4.5"	-
		125004		<b>G25WH40/120</b>	White Halco®	10/100	120	280	3500	C-9	4.5"	-
G40	Med.	5203		<b>G40CL40</b>	Clear Halco®	6/24	130	260	5000	C-9	6.93"	-
		5202		<b>G40WH40</b>	White Halco®	6/24	130	240	5000	C-9	6.93"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards. Incandescent symbols, footnotes and abbreviations are located on page 106.

## Decorative



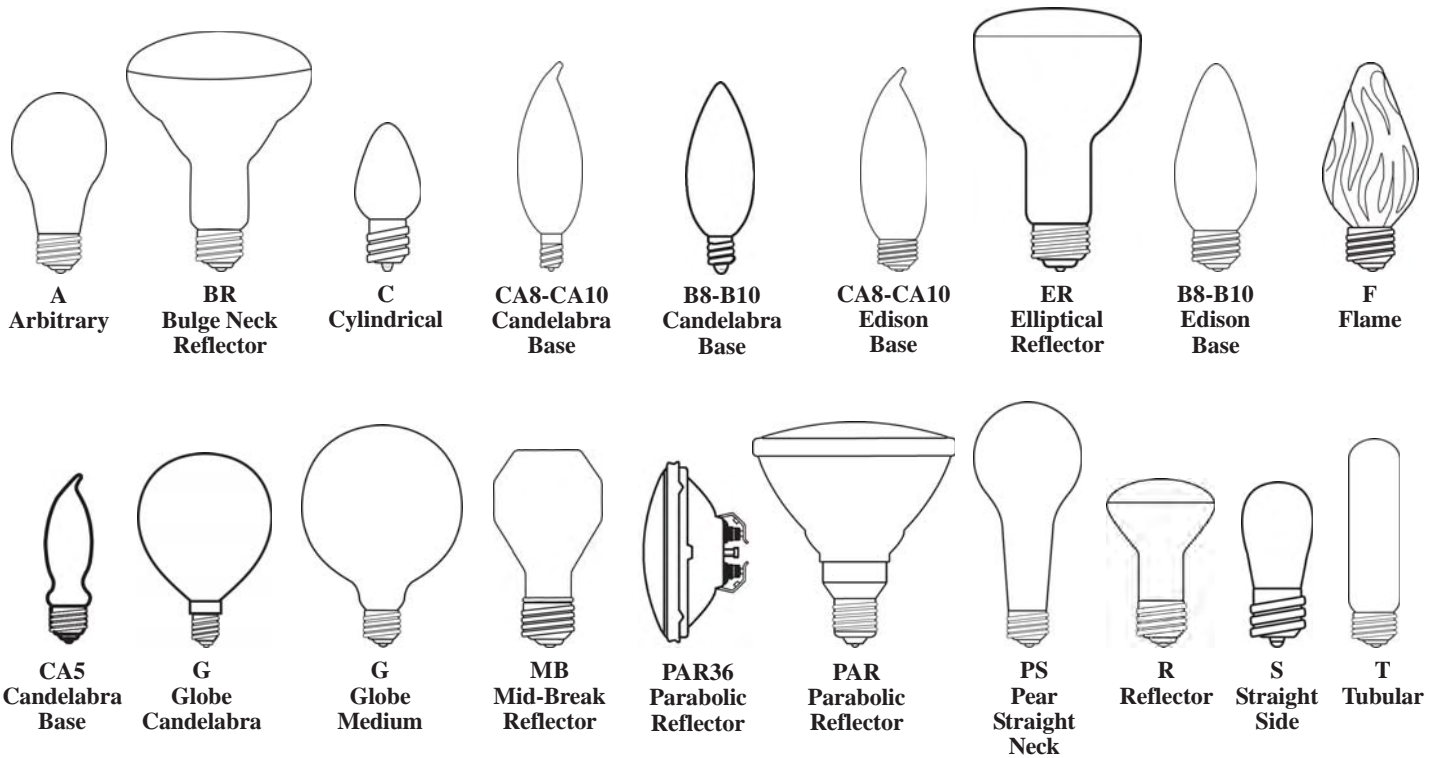
Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg Qty	Volts	Lumens	Avg. Life	Design Filament	MOL	Beam Spread
<b>60 WATT</b>												
B10	Cand.	1009	2	<b>CTC60</b>	Clear 32mm Halco®	25/500	130	650	3000	CC-2V	3.87"	-
		121009	x,2	<b>CTC60/120</b>	Clear 32mm Halco®	25/500	120	650	3000	CC-2V	3.87"	-
		101284	N,2	<b>CTC60/ND</b>	Clear Neodymium PureLite®	10/50	120	500	5000	CC-2V	3.87"	-
		1010	2	<b>CTF60</b>	Frost 32mm Halco®	25/500	130	640	3000	CC-2V	3.87"	-
	E14	121027	†	<b>CTC60/E14</b>	Clear 32mm Halco®	25/500	120	650	3000	CC-2V	3.87"	-
	Med.	1018	2	<b>ETC60</b>	Clear 32mm Halco®	25/500	130	650	3000	CC-2V	3.87"	-
		102146	2	<b>ETC60/TF</b>	Clear Silicone Coated Halco®	25/500	130	-	-	CC-2V	3.87"	-
		1019	2	<b>ETF60</b>	Frost 32mm Halco®	25/500	130	640	3000	CC-2V	3.87"	-
	CA10	Cand.	2009	2	<b>CFC60</b>	Clear 32mm Halco®	25/500	130	650	3000	CC-2V	4.12"
2010			2	<b>CFF60</b>	Frost 32mm Halco®	25/500	130	640	3000	CC-2V	4.12"	-
Med.		2018	2	<b>EFC60</b>	Clear 32mm Halco®	25/500	130	650	3000	CC-2V	4.12"	-
		2019	2	<b>EFF60</b>	Frost 32mm Halco®	25/500	130	640	3000	CC-2V	4.12"	-
C11	Cand.	100213	2	<b>C11SG60</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.02"	-
		100228	x	<b>C11SG60/AMB</b>	Amber Spun Glow Halco®	25/500	130	-	2000	CC-2V	4.02"	-
C15	Med.	100218	2	<b>C15SG60</b>	Clear Spun Glow Halco®	25/500	130	-	1500	CC-2V	4.49"	-
		100226	x	<b>C15SG60/AMB</b>	Amber Spun Glow Halco®	25/500	130	-	2000	C-9	4.49"	-
G16.5	Cand.	4004	2	<b>G16CL60</b>	Clear Halco®	25/500	130	650	3000	CC-2V	3"	-
		4018	2	<b>G16WH60</b>	White Halco®	25/500	130	560	3000	CC-2V	3"	-
G19.5	Med.	104506	2	<b>G19WH60</b>	White Halco®	25/500	130	550	1500	C-9	3.5"	-
G25	Med.	5005		<b>G25CL60</b>	Clear Halco®	10/100	130	550	3500	C-9	4.5"	-
		125005		<b>G25CL60/120</b>	Clear Halco®	10/100	120	550	3500	C-9	4.5"	-
		102382		<b>G25CL60/SB</b>	Clear Silver Bowl	10/100	130	-	3500	C-9	4.5"	-
		5006		<b>G25WH60</b>	White Halco®	10/100	130	480	3500	C-9	4.5"	-
		125006	x	<b>G25WH60/120</b>	White Halco®	10/100	120	480	3500	C-9	4.5"	-
G30	Med.	5506		<b>G30WH60</b>	White Halco®	10/100	130	480	5000	C-9	5"	-
G40	Med.	5205		<b>G40CL60</b>	Clear Halco®	6/24	130	520	5000	C-9	6.93"	-
		5204		<b>G40WH60</b>	White Halco®	6/24	130	450	5000	C-9	6.93"	-
<b>100 WATT</b>												
G25	Med.	5007		<b>G25CL100</b>	Clear Halco®	10/100	130	1100	3500	C-9	4.5"	-
		5008		<b>G25WH100</b>	White Halco®	10/100	130	950	3500	C-9	4.5"	-
G40	Med.	5207		<b>G40CL100</b>	Clear Halco®	6/24	130	1100	5000	C-9	6.93"	-
		5206		<b>G40WH100</b>	White Halco®	6/24	130	950	5000	C-9	6.93"	-
<b>150 WATT</b>												
G40	Med.	5209	x	<b>G40CL150</b>	Clear Halco®	6/24	130	1600	5000	C-9	6.93"	-
		5208		<b>G40WH150</b>	White Halco®	6/24	130	1300	5000	C-9	6.93"	-

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Incandescent symbols, footnotes and abbreviations are located on page 106.

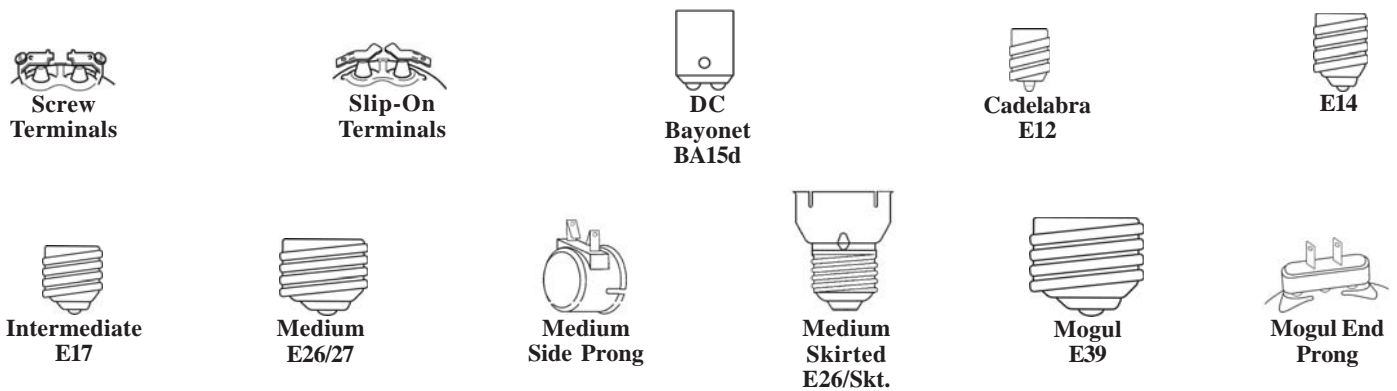


Bulb, Base and Filament Identification Guide

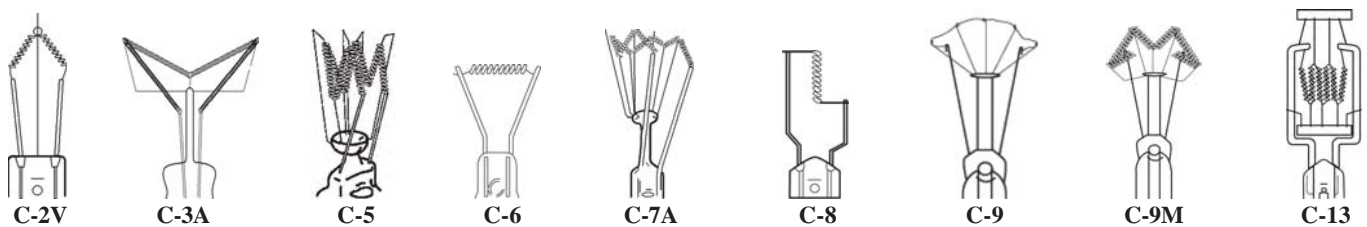
**BULB SHAPES**



**BASE TYPES**



**FILAMENT DESIGNATIONS**

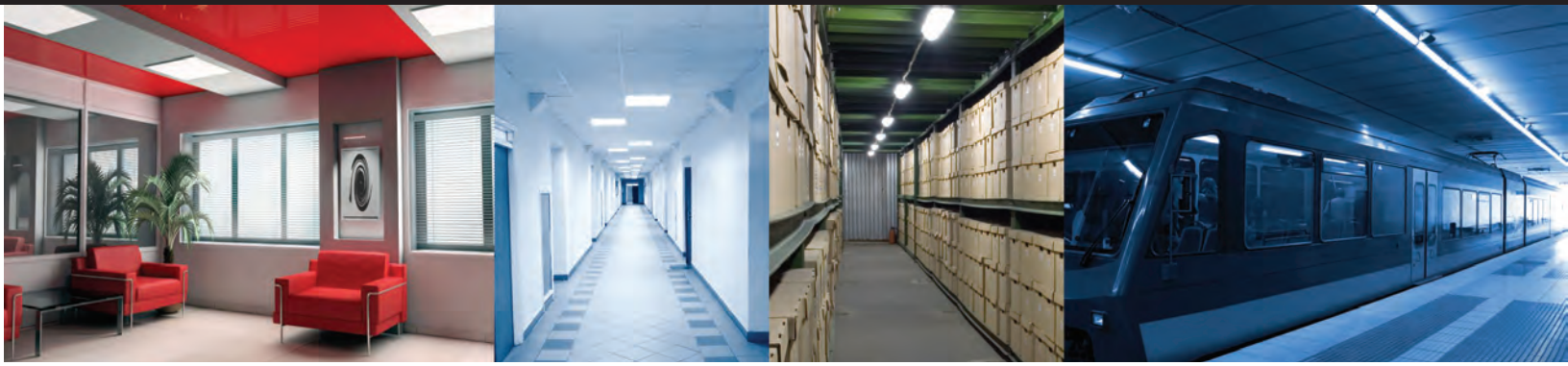


CC indicates coiled-coiled filament.

## Symbols, Footnotes and Abbreviations

SYMBOLS		ABBREVIATIONS	
†	New product introduced within the past year.	/CAN	Suffix used to indicate lamps with Candelabra (E12) base.
Al	Aluminum base.	/E12	Suffix used to indicate lamps with an E12(candleabra) base.
N	Nickel-plated brass base.	/E14	Suffix used to indicate lamps with an E14 base.
△	Heat-resistant glass.	/E17	Suffix used to indicate lamps with an E17(intermediate) base.
\$	Energy saving product.	/E26	Suffix used to indicate lamps with an E26(medium) base.
ⓔ	This lamp meets Federal Minimum Efficiency standards.	AMB	Code abbreviation for lamps with an Amber finish.
x	Product will be discontinued when inventory is depleted.	BG	Code abbreviation for Bug Light lamps.
FOOTNOTES		BLU	Code abbreviation for lamps with a Blue finish.
1	Operate base down.	C	Suffix used for lamps with a Ceramic color finish.
2	Operate base down to horizontal.	CL	Code abbreviation for lamps with a Clear finish.
3	Operate base up.	DC;BAY	Code abbreviation for lamps with a Double Contact Bayonet base(BA15d).
4	This lamp should be shielded from moisture to prevent breakage.	DPNK	Code abbreviation for lamps with a Dawn Pink finish.
5	May not give satisfactory performance if accessory equipment is attached to or touches bulb.	FL	Code abbreviation for Flood lamps.
6	Do not allow hot bulb to come in contact with liquid or metal parts of the fixture, as glass may shatter. Do not use outdoors or operate near flammable materials. Operate in heat-resistant sockets.	FR	Code abbreviation for lamps with a Frost finish.
7	Do not use in equipment where base temperature will exceed 500°F.	GRN	Code abbreviation for lamps with a Green finish.
8	Use only in equipment specially designed to maintain bulb and base temperatures within safe limits.	GRO	Code abbreviation for Plant Grow lamps.
9	May be used for indoor and outdoor applications.	/HG	Suffix used to indicate Hard Glass lamps.
10	Use only in circuits supplying the voltage indicated on the lamp. Not for use in household sockets.	HP	Code abbreviation for Halogen PAR lamps.
11	CAUTION: Do not operate near flammable material. Operate only in heat-resistant sockets. WARNING: Use with care. May cause serious burns. The unattended use of infrared heat by children or incapacitated persons is dangerous. Do not place closer than 18" to surface area. Do not use for therapeutic applications unless recommended by a physician. For food warming, use only lamps with heat-resistant glass and/or heat-resistant coating.	/HX	Suffix used to indicate HaloXen® lamps.
12	Although this bulb is made of heat-resistant glass, it may break if moisture falls on it. Not recommended for use in enclosed and/or close-fitting housing.	INT	Code abbreviation for lamps with an Intermediate (E17) base.
13	Use only with heat-resistant connector and with lamp supported by bulb rim.	L	Code abbreviation for Long Neck Halogen PAR30 lamps.
14	Operate only in porcelain sockets.	/M	Suffix used to indicate Major brand lamps (GE, Philips, Osram/Sylvania).
15	Unsatisfactory operation if operated in positions between horizontal and base up, particularly between 45° from base up and base down.	MED	Code abbreviation for lamps with a Medium (E26/27) base.
16	Do not operate in aviaries or around fowl or small animals.	MFL	Code abbreviation for Medium Flood lamps.
17	See Halogen footnotes 1, 2 and 7 on page 87.	N	Code abbreviation for High-Intensity lamps.
18	See Halogen footnotes 1, 7 and 8 on page 87.	/ND	Suffix used to indicate PureLite® Natural Daylight lamps.
19	See Halogen footnotes 1 and 7 on page 87.	NFL	Code abbreviation for Narrow Flood lamps.
ABBREVIATIONS		/NL	Suffix used to indicate Night Light.
/1	Suffix used to indicate a clear faced infrared lamp.	NSP	Code abbreviation for Narrow Spot lamps.
3W	Code abbreviation for Three Way lamps.	ORG	Code abbreviation for lamps with an Orange finish.
/5	Suffix used to indicate 5,000 hour lamps.	/P5	Suffix used to indicate Prism® Long Life Plus™ 5,000 Hour staggered support C-9M filament lamps.
/10	Suffix used to indicate red-faced heat lamps.	/P10	Suffix used to indicate Prism® Ultra Life® 10,000 Hour staggered support C-9M filament lamps.
/12V	Suffix used to indicate 12 Volt lamps.	PNK	Code abbreviation for lamps with a Pink finish.
/20	Suffix used to indicate Prism® UltraLife® 20,000 hour lamps.	PUR	Code abbreviation for lamps with a Purple finish.
/120	Suffix used to indicate 120 Volt lamps.	Q	Code abbreviation for Quartz Halogen lamps.
/145V	Suffix used to indicate 145 Volt lamps.	RED	Code abbreviation for lamps with a Red finish.
/1750	Suffix used to indicate lamps that produce 1750 lumens.	RS	Code abbreviation for Rough Service lamps.
		/S	Suffix used to indicate short lamps.
		/SB	Suffix used to indicate Silver Bowl.
		SG	Code abbreviation for Spun Glow decorative lamps.
		SP	Code abbreviation for Spot lamps.
		SW	Code abbreviation for lamps with a Soft White finish.
		T	Suffix used for colored incandescent lamps with a Transparent finish.
		TEF	Code abbreviation for lamps with a Silicone or Teflon® coating.
		TF	Code abbreviation for Tuff Skin lamps with a silicon coating.
		VNSP	Code abbreviation for Very Narrow Spot lamps.
		VWFL	Code abbreviation for Very Wide Flood lamps.
		WFL	Code abbreviation for Wide Flood lamps.
		WH	Code abbreviation for lamps with a White finish.
		YEL	Code abbreviation for lamps with a Yellow finish.

# linear fluorescent



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# how to read a table

**BULB** Designations indicate tube diameter. Illustrations can be found on page 48 and at the top of each page.

**WATTS** Indicates the power consumed by the lamp during operation.

**PRODUCT CODE** Abbreviated product description can also be used for ordering. A key to abbreviations can be found on page 53.

**PACKAGE QUANTITY** Indicates minimum sell quantity and smallest shipping carton.

**COLOR TEMP.** A term used to describe the color of a light source and is expressed in degrees Kelvin (K).

**MEAN LUMENS** The lamp's average light output at 40% of rated life.

**AVERAGE LIFE** Average rated life expressed in hours.

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
<b>ProLume® T-8 Rapid Start - Medium Bi-Pin Eco-Shield®</b>												
T8	28	109364	▼ \$,1	F28T8/835/ECO	835 Phosphor	25	3500	86	2800	2660	24000	48"
	28	109366	▼ \$,1	F28T8/841/ECO	841 Phosphor	25	4100	86	2800	2660	24000	48"
	28	109368	▼ \$,1	F28T8/850/ECO	850 Phosphor	25	5000	86	2800	2660	24000	48"
	32	109412	▼ (E) \$,1	F32T8/730/ECO	730 Phosphor	25	3000	78	2850	2700	24000	48"
	32	30150	▼ (E) † \$,1	F32T8/730/ECO/IC	730 Phosphor	25	3000	78	2850	2700	24000	48"
	32	109414	▼ (E) \$,1	F32T8/735/ECO	735 Phosphor	25	3500	78	2850	2700	24000	48"
	32	30151	▼ (E) † \$,1	F32T8/735/ECO/IC	735 Phosphor	25	3500	78	2850	2700	24000	48"
	32	109416	▼ (E) \$,1	F32T8/741/ECO	741 Phosphor	25	4100	78	2850	2700	24000	48"

**PRODUCT NUMBER**  
Use this product number when placing an order.

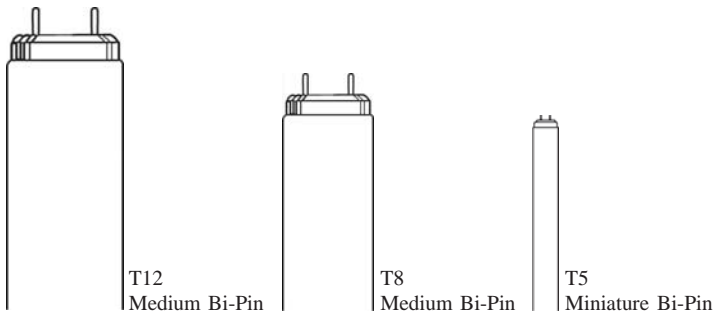
**FOOTNOTES & SYMBOLS** Related footnotes can be found on page 53.

**DESCRIPTION**  
Color description or other important information.

**CRI** An international scale from 0 to 100 that indicates the relative color rendering value of a light source. The Color rendering index expresses the degree to which colors will look "natural" under a given light source.

**INITIAL LUMENS**  
The lamp's average light output after the initial 100 hours of operation.

**NOM. LENGTH**  
A measurement for Fluorescent lamp length based on the length of the lamp plus an allowance for the luminaire's lamp holders.



Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
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**ProLume® Preheat - Miniature Bi-Pin**

T5	4	9213	1,7	F4T5CW	Cool White	10/1000	4100	65	100	95	6000	6"
	6	9200	1,7	F6T5CW	Cool White	10/500	4100	65	200	190	6000	9"
	8	9201	1,7	F8T5CW	Cool White	10/500	4100	65	280	265	6000	12"
	8	9215	1,7	F8T5DL	Daylight	10/500	6500	75	330	310	6000	12"
	8	9210	1,7	F8T5WW	Warm White	10/500	3000	53	400	380	6000	12"
	8	9206	1,7	F8T5BLB	Blacklight Blue	10/500	-	-	-	-	6000	12"
	13	9231	1,7	F13T5CW	Cool White	10/200	4100	65	620	585	6000	21"
	13	9232	1,7	F13T5WW	Warm White	10/200	3000	53	870	825	6000	21"

**ProLume® Preheat - Medium Bi-Pin**

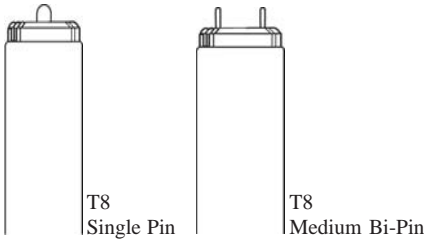
T8	14	109370	1	F14T8CW	Cool White	25	4100	62	650	550	8000	14"
	15	9202	1	F15T8CW	Cool White	30	4100	62	770	690	8000	17"
	15	109212	1	F15T8DL	Daylight	30	6500	74	770	690	8000	17"
	15	109208	1	F15T8WW	Warm White	30	3000	53	845	750	8000	17"
	30	9225	1	F30T8CW	Cool White	30	4100	62	2100	1900	9000	35"
T12	14	9228	1	F14T12CW	Cool White	30	4100	62	480	432	9000	14"
	15	9212	1	F15T12CW	Cool White	30	4100	62	650	570	9000	17"
	20	9203	1	F20T12CW	Cool White	30	4100	62	1150	1000	8000	24"
	20	9235	1	F20T12DL	Daylight	30	6500	74	1100	960	8000	24"
	20	9227	1	F20T12WW	Warm White	30	3000	52	1200	1080	8000	24"
	20	109612	x,1	F20T12/ULTRA50	Ultra50	30	5000	86	1300	1170	10000	24"

**ProLume® T-5 Programmed Start - Miniature Bi-Pin Eco-Shield®**

T5	14	35006	♥ † \$,1,7	F14T5/830/ECO	830 Phosphor	25	3000	85	1350	1280	20000	22"
	14	105440	♥ \$,1,7	F14T5/835/ECO	835 Phosphor	25	3500	85	1350	1280	20000	22"
	14	105420	♥ \$,1,7	F14T5/841/ECO	841 Phosphor	25	4100	85	1350	1280	20000	22"
	21	105400	♥ \$,1,7	F21T5/830/ECO	830 Phosphor	25	3000	85	2100	2000	20000	34"
	21	105460	♥ \$,1,7	F21T5/835/ECO	835 Phosphor	25	3500	85	2100	2000	20000	34"
	21	105480	♥ \$,1,7	F21T5/841/ECO	841 Phosphor	25	4100	85	2100	2000	20000	34"
	24	105580	♥ \$,1,7	F24T5/835/HO/ECO	835 Phosphor High Output	25	3500	85	2000	1900	20000	22"
	24	105600	♥ \$,1,7	F24T5/841/HO/ECO	841 Phosphor High Output	25	4100	85	2000	1900	20000	22"
	28	105402	♥ (E) \$,1,7	F28T5/830/ECO	830 Phosphor	25	3000	85	2900	2750	20000	46"
	28	35041	♥ (E) † \$,1,7	F28T5/830/ECO/IC	830 Phosphor	25	3000	85	2900	2750	24000	46"
	28	105500	♥ (E) \$,1,7	F28T5/835/ECO	835 Phosphor	25	3500	85	2900	2750	20000	46"
	28	35042	♥ (E) † \$,1,7	F28T5/835/ECO/IC	835 Phosphor	25	3500	85	2900	2750	24000	46"
	28	105520	♥ (E) \$,1,7	F28T5/841/ECO	841 Phosphor	25	4100	85	2900	2750	20000	46"

(E) Means this lamp meets Federal Minimum Efficiency standards.  
Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.



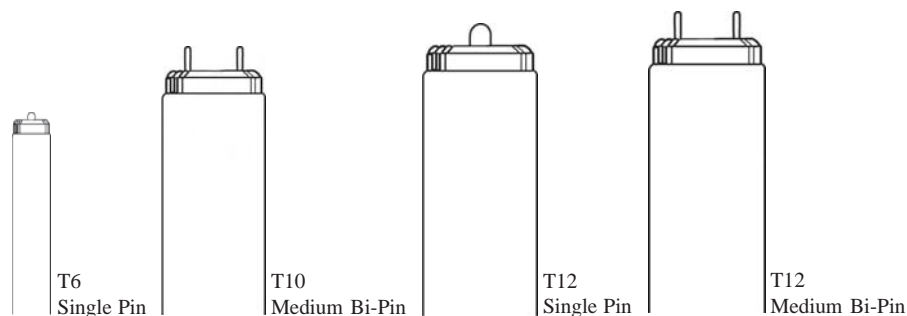


Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
<b>ProLume® T-8 Rapid Start - Medium Bi-Pin Eco-Shield® (cont'd)</b>												
T8	28	109364	♥ \$,1	F28T8/835/ECO	835 Phosphor	25	3500	86	2800	2660	24000	48"
	28	109366	♥ \$,1	F28T8/841/ECO	841 Phosphor	25	4100	86	2800	2660	24000	48"
	28	109368	♥ \$,1	F28T8/850/ECO	850 Phosphor	25	5000	86	2800	2660	24000	48"
	32	109412	♥ (E) \$,1	F32T8/730/ECO	730 Phosphor	25	3000	78	2850	2700	24000	48"
	32	30150	♥ (E) † \$,1	F32T8/730/ECO/IC	730 Phosphor	25	3000	78	2850	2700	24000	48"
	32	109414	♥ (E) \$,1	F32T8/735/ECO	735 Phosphor	25	3500	78	2850	2700	24000	48"
	32	30151	♥ (E) † \$,1	F32T8/735/ECO/IC	735 Phosphor	25	3500	78	2850	2700	24000	48"
	32	109416	♥ (E) \$,1	F32T8/741/ECO	741 Phosphor	25	4100	78	2850	2700	24000	48"
	32	30152	♥ (E) † \$,1	F32T8/741/ECO/IC	741 Phosphor	25	4100	78	2850	2700	24000	48"
	32	109418	♥ (E) \$,1	F32T8/750/ECO	750 Phosphor	25	5000	78	2850	2700	24000	48"
	32	30153	♥ (E) † \$,1	F32T8/750/ECO/IC	750 Phosphor	25	5000	78	2850	2700	24000	48"
	32	109424	♥ (E) \$,1	F32T8/765/ECO	765 Phosphor	25	6500	78	2850	2700	24000	48"
	32	30154	♥ (E) † \$,1	F32T8/765/ECO/IC	765 Phosphor	25	6500	78	2850	2700	24000	48"
	32	109398	♥ (E) \$,1	F32T8/830/ECO	830 Phosphor	25	3000	86	3050	2900	24000	48"
	32	35150	♥ (E) † \$,1	F32T8/830/ECO/IC	830 Phosphor	25	3000	86	3050	2900	24000	48"
	32	35155	♥ (E) † \$,1	F32T8/830/ECO/HL	830 Phosphor High Lumen	25	3000	86	3150	3000	24000	48"
	32	109400	♥ (E) \$,1	F32T8/835/ECO	835 Phosphor	25	3500	86	3050	2900	24000	48"
	32	35151	♥ (E) † \$,1	F32T8/835/ECO/IC	835 Phosphor	25	3500	86	3050	2900	24000	48"
	32	35156	♥ (E) † \$,1	F32T8/835/ECO/HL	835 Phosphor High Lumen	25	3500	86	3150	3000	24000	48"
	32	109402	♥ (E) \$,1	F32T8/841/ECO	841 Phosphor	25	4100	86	3050	2900	24000	48"
	32	35152	♥ (E) † \$,1	F32T8/841/ECO/IC	841 Phosphor	25	4100	86	3050	2900	24000	48"
	32	35157	♥ (E) † \$,1	F32T8/841/ECO/HL	841 Phosphor High Lumen	25	4100	86	3150	3000	24000	48"
	32	109404	♥ (E) \$,1	F32T8/850/ECO	850 Phosphor	25	5000	86	3050	2900	24000	48"
	32	35153	♥ (E) † \$,1	F32T8/850/ECO/IC	850 Phosphor	25	5000	86	3050	2900	24000	48"
	32	35158	♥ (E) † \$,1	F32T8/850/ECO/HL	850 Phosphor High Lumen	25	5000	86	3150	3000	24000	48"
	32	109428	♥ (E) \$,1	F32T8/865/ECO	865 Phosphor	25	6500	86	3050	2900	24000	48"
	32	35154	♥ (E) † \$,1	F32T8/865/ECO/IC	865 Phosphor	25	6500	86	3050	2900	24000	48"
	32	109360	♥ (E) \$,1	F32T8/ULTRA950	950 Phosphor Ultra950™	25	5000	98	2000	1900	24000	48"
	32	37200	1	F32T8BLB	Blacklight-Blue	12	-	-	-	-	20000	48"
	40	815951	\$,1	F40T8/735/M	735 Phosphor Major	30	3500	75	3600	1900	24000	60"
	40	815952	\$,1	F40T8/741/M	741 Phosphor Major	30	4100	75	3600	1900	24000	60"
	58	109374	1	F58T8/840	840 Phosphor	25	4000	85	5300	5000	15000	60"
	70	839452	1	F70T8/840/M	840 Phosphor Major	25	4000	85	6300	5985	20000	72"

**T-8 Rapid Start - Single Pin**

T8	59	823411	(E) \$,1	F96T8/735/M	735 Phosphor Major	24	3500	78	5800	5500	15000	96"
	59	823412	(E) \$,1	F96T8/741/M	741 Phosphor Major	24	4100	78	5800	5500	15000	96"
	59	205773	(E) \$,1	F96T8/850/M	850 Phosphor Major	24	5000	86	5950	5500	15000	96"

(E) Means this lamp meets Federal Minimum Efficiency standards.  
Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.



Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
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## T-10 Rapid Start - Medium Bi-Pin

T10	40	131540	ⓔ 1	<b>F40T10/SS/SG</b>	Full Spectrum USA	25	5900	90	3425	3250	20000	48"
	40	131524	ⓔ 1	<b>F40T10/TRI41</b>	841 Phosphor USA	25	4100	86	3625	3440	20000	48"
	40	109600	ⓔ 1	<b>F40T10/ULTRA50</b>	850 Phosphor ProLume® Ultra50™	30	5000	86	3600	3420	20000	48"
	40	109602	ⓔ H,1	<b>F40T10/955</b>	955 Phosphor ProLume®	25	5550	92	3600	3420	20000	48"

## T-12 Rapid Start - Medium Bi-Pin

T12	30	9204	1	<b>F30T12CW</b>	Cool White ProLume®	30	4100	62	2100	1830	8000	36"
	30	9236	1	<b>F30T12DL</b>	Daylight ProLume®	30	6500	74	1900	1650	8000	36"
	30	313742	1	<b>F30T12WW</b>	Warm White Major	30	3000	53	2300	2000	18000	36"
	34	40212	Ⓢ,1	<b>F34CWES/ECO</b>	Cool White ProLume® Eco-Shield® ES	30	4100	62	2650	2300	20000	48"
	34	256867	Ⓢ,1	<b>F34WWES/M</b>	Warm White Low Mercury ES Major	30	3000	53	2700	2350	20000	48"
	40	230474	ⓔ 1	<b>F40AB</b>	Arctic Brite USA	30	5100	82	2400	2275	20000	48"
	40	109480	1	<b>F40/350BL</b>	Blacklight ProLume®	6	-	-	-	-	20000	48"
	40	109490	1	<b>F40BLB</b>	Blacklight-Blue ProLume®	6	-	-	-	-	20000	48"
	40	109430	ⓔ 1	<b>F40CWX</b>	Cool White Deluxe ProLume®	30	4200	90	2200	1980	20000	48"
	40	109420	ⓔ 1	<b>F40DX</b>	Daylight Deluxe ProLume®	30	6500	85	2650	2500	20000	48"
	40	313130	ⓔ 1	<b>F40NL</b>	Natural Light USA	30	5600	91	2150	2025	20000	48"
	40	346817	ⓔ 1	<b>F40SL</b>	Full Spectrum USA	30	5900	90	2430	2300	20000	48"
	40	815075	ⓔ 1	<b>F40/730/ECO</b>	730 Phosphor Low Mercury Major	30	3000	70	3250	2950	20000	48"
	40	109442	ⓔ 1	<b>F40/735</b>	735 Phosphor ProLume®	30	3500	75	3050	2775	20000	48"
	40	109444	ⓔ 1	<b>F40/741</b>	741 Phosphor ProLume®	30	4100	75	3050	2775	20000	48"
	40	109440	ⓔ 1	<b>F40/950</b>	950 Phosphor ProLume®	30	5000	92	2200	1980	20000	48"
	40	109614	ⓔ 1	<b>F40/ULTRA50</b>	850 Phosphor ProLume® Ultra50™	30	5000	86	3450	3275	20000	48"

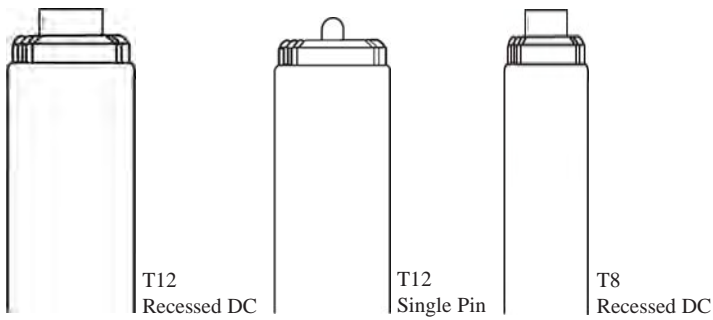
## Slimline Instant Start - Single Pin

T6	25	824266	1	<b>F42T6CW/M</b>	Cool White Major	24	4100	62	1750	1665	7500	42"
	40	826466	1	<b>F64T6CW/M</b>	Cool White Major	24	4100	62	2800	2650	7500	64"
T12	39	363218	1	<b>F48CW/M</b>	Cool White Low Mercury Major	15	4100	62	2950	2800	9000	48"
	39	387019	1	<b>F48DL/M</b>	Daylight Low Mercury Major	15	6500	79	2500	2375	9000	48"
	50	826001	1	<b>F60CW/M</b>	Cool White Major	30	4100	62	3600	3420	12000	60"
	50	823076	1	<b>F60DL/M</b>	Daylight Major	30	6500	75	3000	2850	12000	60"
	50	355768	1	<b>F64CW/M</b>	Cool White Major	30	4100	62	3900	3700	12000	64"
	50	355776	1	<b>F64DL/M</b>	Daylight Major	30	6500	76	3300	3125	12000	64"
	56	369892	1	<b>F72CW/M</b>	Cool White Low Mercury Major	15	4100	62	4450	4225	12000	72"
	56	369850	1	<b>F72DL/M</b>	Daylight Low Mercury Major	15	6500	79	3800	3600	12000	72"
	70	813764	1	<b>F84CW/M</b>	Cool White Major	15	4100	62	5300	5025	12000	84"
	75	231548	ⓔ 1	<b>F96AB</b>	Arctic Brite USA	15	5100	82	4775	4525	12000	96"
	60	402440	Ⓢ,1	<b>F96CWES/ECO</b>	Cool White ProLume® Eco-Shield®	15	4150	62	5400	5125	12000	96"
	75	109422	Ⓢ,ⓔ 1	<b>F96DX/ECO</b>	Daylight Deluxe ProLume® Eco-Shield®	15	6500	84	4500	4275	26000	96"

ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.





Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
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**Slimline Instant Start - Single Pin (cont'd)**

(T12	75	350157	Ⓔ 1	<b>F96SL</b>	Full Spectrum USA	15	5900	90	4340	4125	12000	96"
	75	814067	Ⓔ 1	<b>F96/735/M</b>	735 Phosphor Major	15	3500	73	6110	5800	12000	96"
	75	298018	Ⓔ 1	<b>F96/T50</b>	Triten 50 USA	15	5000	85	6500	6175	12000	96"

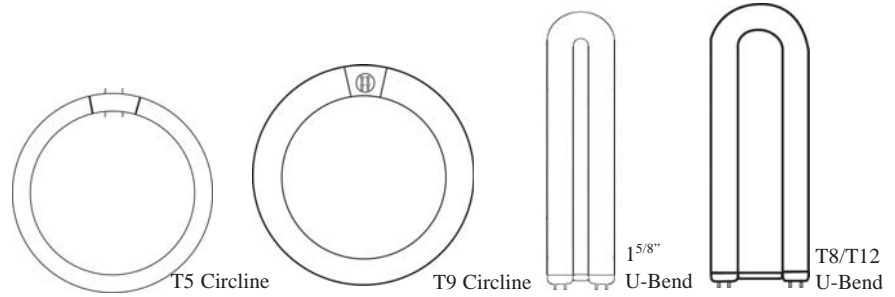
**High Output (800mA) - Recessed DC Base**

T8	86	812537	Ⓔ \$,1,4,5	<b>F96T8/735HO/M</b>	735 Phosphor High Output Major	24	3500	78	8000	7600	18000	96"
	86	812538	Ⓔ \$,1,4,5	<b>F96T8/741HO/M</b>	741 Phosphor High Output Major	24	4100	78	8000	7600	18000	96"
T12	35	262790	1,4,5	<b>F24T12CWHO/M</b>	Cool White High Output Major	30	4100	62	1650	1575	9000	24"
	35	262741	1,4,5	<b>F24T12DLHO/M</b>	Daylight High Output Major	30	6500	79	1400	1325	9000	24"
	40	226464	1,4,5	<b>F30T12CWHO/M</b>	Cool White High Output Major	30	4100	62	2290	2175	9000	30"
	40	343343	1,4,5	<b>F30T12DLHO/M</b>	Daylight High Output Major	30	6500	79	1920	1825	9000	30"
	50	262865	1,4,5	<b>F36T12CWHO/M</b>	Cool White High Output Major	30	4100	62	2800	2650	9000	36"
	50	262907	1,4,5	<b>F36T12DLHO/M</b>	Daylight High Output Major	30	6500	79	2500	2375	9000	36"
	55	810559	1,4,5	<b>F42CWHO/M</b>	Cool White High Output Major	30	4100	62	3400	3225	9000	42"
	55	810560	1,4,5	<b>F42DLHO/M</b>	Daylight High Output Major	30	6500	79	3000	2850	9000	42"
	60	369785	1,4,5	<b>F48CWHO/M</b>	Cool White High Output Low Mercury Major	15	4100	62	4050	3850	12000	48"
	60	369843	1,4,5	<b>F48DLHO/M</b>	Daylight High Output Low Mercury Major	15	6500	79	3400	3225	12000	48"
	75	251260	1,4,5	<b>F60CWHO/M</b>	Cool White High Output Major	30	4100	62	5200	4950	12000	60"
	75	825120	1,4,5	<b>F60DLHO/M</b>	Daylight High Output Major	30	6500	76	4600	4375	12000	60"
	80	823083	1,4,5	<b>F64CWHO/M</b>	Cool White High Output Major	15	4100	60	5600	5325	12000	64"
	80	823087	1,4,5	<b>F64DLHO/M</b>	Daylight High Output Major	15	6500	75	4750	4500	12000	64"
	85	366518	1,4,5	<b>F72CWHO/M</b>	Cool White High Output Low Mercury Major	15	4100	62	6350	6035	12000	72"
	85	366534	1,4,5	<b>F72DLHO/M</b>	Daylight High Output Low Mercury Major	15	6500	79	5600	5325	12000	72"
	100	813766	1,4,5	<b>F84CWHO/M</b>	Cool White High Output Major	15	4100	62	7800	7400	12000	84"
	100	813767	1,4,5	<b>F84DLHO/M</b>	Daylight High Output Major	15	6500	76	6700	6375	12000	84"
	110	392639	Ⓔ 1,4,5	<b>F96ABHO</b>	Artic Brite High Output USA	15	5100	82	6885	6550	12000	96"
	110	402600	♥ 1,4,5,6	<b>F96CWHOO/ECO</b>	Cool White High Output ProLume® Eco-Shield®	15	4150	62	8800	8350	12000	96"
	95	402640	♥ Ⓔ \$,1,4,5	<b>F96CWHOES/ECO</b>	Cool White High Output ES ProLume® Eco-Shield®	15	4150	62	8000	7600	12000	96"
	110	381774	1,4,5,6	<b>F96DLHOO/A</b>	Daylight High Output Low Mercury Major	15	6500	79	7800	7400	12000	96"
	110	274233	Ⓔ 1,4,5	<b>F96T50HO</b>	Triten 50 High Output USA	15	5000	85	9675	9200	12000	96"

**Very High Output (1500mA) - Recessed DC Base**

T12	110	810751	1,4,5	<b>F48CWWHOM</b>	Cool White Very High Output Major	24	4100	60	6200	5900	10000	48"
	160	813760	1,4,5	<b>F72CWWHOM</b>	Cool White Very High Output Major	15	4100	62	7850	7450	10000	72"
	215	342345	1,4,5	<b>F96CWWHOM</b>	Cool White Very High Output Major	15	4100	62	13500	10125	10000	96"

Ⓔ Means this lamp meets Federal Minimum Efficiency standards. Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.



Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
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## ProLume® U-Bend Rapid Start - Medium Bi-Pin Base

T8	31	30301	Ⓜⓔ†\$,1,3	FB31/830/ECO	830 Phosphor 1-5/8" Eco-Shield®	12	3000	85	2750	2600	24000	22.5"
	31	30302	Ⓜⓔ†\$,1,3	FB31/835/ECO	835 Phosphor 1-5/8" Eco-Shield®	12	3500	85	2750	2600	24000	22.5"
	31	30303	Ⓜⓔ†\$,1,3	FB31/841/ECO	841 Phosphor 1-5/8" Eco-Shield®	12	4100	85	2750	2600	24000	22.5"
	31	30304	Ⓜⓔ\$,1,3	FB31/850/ECO	850 Phosphor 1-5/8" Eco-Shield®	12	5000	85	2750	2600	24000	22.5"
	32	109500	Ⓜⓔ\$,1,3	FB32/730/6/ECO	730 Phosphor 6" Eco-Shield®	20	3000	75	2650	2520	24000	22.5"
	32	30351	Ⓜⓔ†\$,1,3	FB32/730/6/ECO/IC	730 Phosphor 6" Eco-Shield®	20	3000	75	2750	2600	24000	22.5"
	32	109502	Ⓜⓔ\$,1,3	FB32/735/6/ECO	735 Phosphor 6" Eco-Shield®	20	3500	75	2650	2520	24000	22.5"
	32	30352	Ⓜⓔ†\$,1,3	FB32/735/6/ECO/IC	735 Phosphor 6" Eco-Shield®	20	3500	75	2750	2600	24000	22.5"
	32	109504	Ⓜⓔ\$,1,3	FB32/741/6/ECO	741 Phosphor 6" Eco-Shield®	20	4100	75	2650	2520	24000	22.5"
	32	30353	Ⓜⓔ†\$,1,3	FB32/741/6/ECO/IC	741 Phosphor 6" Eco-Shield®	20	4100	75	2750	2600	24000	22.5"
	32	109506	Ⓜⓔ\$,1,3	FB32/750/6/ECO	750 Phosphor 6" Eco-Shield®	20	5000	75	2650	2520	24000	22.5"
	32	30354	Ⓜⓔ†\$,1,3	FB32/750/6/ECO/IC	750 Phosphor 6" Eco-Shield®	20	5000	75	2750	2600	24000	22.5"
	32	109812	Ⓜⓔ\$,1,3	FB32/830/6/ECO	830 Phosphor 6" Eco-Shield®	20	3000	85	2900	2750	24000	22.5"
	32	109814	Ⓜⓔ\$,1,3	FB32/835/6/ECO	835 Phosphor 6" Eco-Shield®	20	3500	85	2900	2750	24000	22.5"
	32	35302	Ⓜⓔ†\$,1,3	FB32/835/6/ECO/IC	835 Phosphor 6" Eco-Shield®	20	3500	85	2900	2750	24000	22.5"
	32	109816	Ⓜⓔ\$,1,3	FB32/841/6/ECO	841 Phosphor 6" Eco-Shield®	20	4100	85	2900	2750	24000	22.5"
	32	35303	Ⓜⓔ†\$,1,3	FB32/841/6/ECO/IC	841 Phosphor 6" Eco-Shield®	20	4100	85	2900	2750	24000	22.5"
	32	109818	Ⓜⓔ\$,1,3	FB32/850/6/ECO	850 Phosphor 6" Eco-Shield®	20	5000	85	2900	2750	24000	22.5"
T12	34	812199	\$,1,3	FB34CWU3ES/M	Cool White 3-5/8" Major	12	4100	60	2200	2100	14000	22.5"
	34	378638	\$,1,3	FB34CWU6ES/M	Cool White 6" Major	12	4100	62	2400	2050	18000	22.5"
	34	60818	\$,1,3	FB34CWU6ES/SG	Cool White 6" USA	12	4100	62	2400	2050	18000	22.5"
	40	230375	ⓔ1,3	FB40ABU6	Arctic Brite 6" USA	12	5100	82	2285	2175	14000	22.5"
	40	219931	ⓔ1,3	FB40DX/6/M	Daylight 6" Major	12	6500	84	2250	2125	18000	22.5"
	40	445940	ⓔ1,3	FB40SLU6	Full Spectrum 6" USA	12	5900	90	1980	1875	14000	22.5"
	40	378588	ⓔ1,3	FB40/TRI50	Triten50 6" USA	12	5000	84	3150	3000	14000	22.5"

## ProLume® Circline Rapid Start G10q

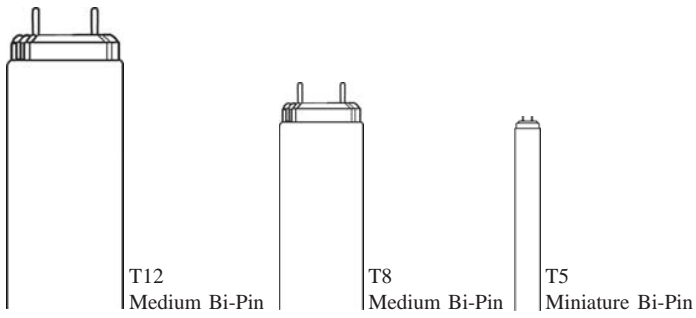
T9	22	109040	1	FC8T9CW	Cool White	12	4100	62	1150	1050	10000	8"
	22	37503	†,1	FC8T9DL	Daylight	12	6500	75	1150	1050	10000	8"
	30	37504	†,1	FC9T9/830	830 Phosphor	12	3000	86	1800	1700	10000	9"
	32	109050	1	FC12T9CW	Cool White	12	4100	62	2100	2000	10000	12"
	40	109060	1	FC16T9CW	Cool white	12	4100	62	2900	2700	10000	16"

## ProLume® Circline Programmed Start 2GX13

T5	22	109080	\$,2,7	FC22T5/835	835 Phosphor	12	3500	82	1900	1800	10000	9"
	22	109082	\$,2,7	FC22T5/841	841 Phosphor	12	4100	82	1900	1800	10000	9"
	40	109084	\$,2,7	FC40T5/835	835 Phosphor	20	3500	82	3350	3150	10000	12"
	40	109086	\$,2,7	FC40T5/841	841 Phosphor	20	4100	82	3350	3150	10000	12"

ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.



Bulb	Watts	Product Number	Footnotes	Product Code	Description	Pkg Qty	Color Temp.	CRI	Initial Lumens	Mean Lumens	Avg. Life	Nom. Length
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**ProLume® Appliance - Medium Bi-Pin Base**

T8	18	109234	1	<b>F18T8CW/K24</b>	Cool White 24" ProLume®	25	4100	62	1175	1125	7500	24"
	18	810702	1	<b>F18T8CW/K26</b>	Cool White 26" Major	24	4100	62	1280	1225	7500	26"
	18	817704	1	<b>F18T8CW/K28</b>	Cool White 28" Major	24	4100	62	1360	1300	7500	28"
	18	810349	1	<b>F18T8CW/K30</b>	Cool White 30" Major	24	4100	62	1400	1325	7500	30"
T12	25	810280	1	<b>F25T12CW/28</b>	Cool White 28" Major	6	4100	62	1670	1575	7500	28"
	25	838201	1	<b>F25T12CW/33</b>	Cool White 33" Major	6	4100	62	1850	1750	7500	33"

**ProLume® Blacklight & Blacklight-Blue**

T5	8	9206	1	<b>F8T5BLB</b>	Blacklight-Blue	10/500	-	-	-	-	5000	12"
T8	32	37200	†,1	<b>F32T8BLB</b>	Blacklight-Blue	12	-	-	-	-	20000	48"
T12	40	109490	1	<b>F40BLB</b>	Blacklight-Blue	6	-	-	-	-	20000	48"
	40	109480	1	<b>F40/350BL</b>	Blacklight	6	-	-	-	-	20000	48"

ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.

Product Number	Product Code	Description	Voltage	Start Type	Pkg Qty
<b>ProLume® Ballasts</b>					
<b>Electronic</b>					
50150	E1CR22RS/120/PT	FC22 1 Circline Lamp	120	Rapid Start	1/100
50146	E1CR32RS/120/PT	FC32 1 Circline Lamp	120	Rapid Start	1/100
50102	E108RS/120	F8T5 1 Lamp	120	Rapid Start	1/60
50104	E114RS/120	F13T5 1 Lamp	120	Rapid Start	1/60
50108	E120RS/120	F20T12 1 Lamp	120	Rapid Start	1/20
50106	E126RS/120	F13T8 1 Lamp	120	Rapid Start	1/50
50138	E139HO/RS/120	F39T5 HO 1 Lamp	120	Rapid Start	1/50
50140	E154HO/RS/120	F54T5 HO 1 Lamp	120	Rapid Start	1/50
50148	E2CR72RS/120/PT	FC32 & FC40 2 Circline Lamp	120	Rapid Start	1/50
50110	E220RS/120	F20T12 2 Lamp	120	Rapid Start	1/20
50118	E232IS/120/R/SL	F32T8 2 Lamp Residential	120	Instant Start	10
50158	E432IS/120/R/SL	F32T8 4 Lamp Residential	120	Instant Start	10
<b>ProFormance Electronic</b>					
50112	EP132IS/MV/SL	F32T8 1 Lamp	120-277	Instant Start	10
50162	EP2110RS/120	F96T12 HO 2 Lamp	120	Rapid Start	6
50164	EP2110RS/MV	F96T12 HO 2 Lamp	120-277	Rapid Start	6
50114	EP232IS/120/SL	F32T8 2 Lamp	120	Instant Start	10
50116	EP232IS/MV/SL	F32T8 2 Lamp	120-277	Instant Start	10
50115	EP232IS/H/MV/SL	F32T8 2 Lamp HBF	120-277	Instant Start	10
50152	EP232IS/L/MV/SL	F32T8 2 Lamp LBF	120-277	Instant Start	10
50142	EP239HO/PS/MV	F39T5 HO 2 Lamp	120-277	Programmed Start	1/20
50128	EP240RS/120	F40T12 2 Lamp	120	Rapid Start	10
50160	EP240RS/MV	F40T12 2 Lamp	120-277	Rapid Start	10
50144	EP254HO/PS/MV	F54T5 HO 2 Lamp	120-277	Programmed Start	1/20
50136	EP259IS/MV	F96T8 2 Lamp	120-277	Instant Start	10
50132	EP260IS/120	F96T12 ES 2 Lamp	120	Instant Start	10
50134	EP260IS/277	F96T12 ES 2 Lamp	277	Instant Start	10
50130	EP275IS/MV	F96T12 2 Lamp	120-277	Instant Start	6
50120	EP332IS/120/SL	F32T8 3 Lamp	120	Instant Start	10
50122	EP332IS/MV/SL	F32T8 3 Lamp	120-277	Instant Start	10
50121	EP332IS/H/MV/SL	F32T8 3 Lamp HBF	120-277	Instant Start	10
50154	EP332IS/L/MV/SL	F32T8 3 Lamp LBF	120-277	Instant Start	10
50124	EP432IS/120/SL	F32T8 4 Lamp	120	Instant Start	10
50126	EP432IS/MV/SL	F32T8 4 Lamp	120-277	Instant Start	10
50156	EP432IS/L/MV/SL	F32T8 4 Lamp LBF	120-277	Instant Start	10

ProLume ProFormance ballasts provide high power factor and low THD of less than 10%.

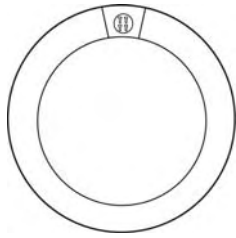
Ⓔ Means this lamp meets Federal Minimum Efficiency standards.  
 Linear Fluorescent symbols, footnotes and abbreviations are located on page 53.

Product Number	Product Code	Description	Voltage	Start Type	Pkg Qty
<b>ProLume® Ballasts</b>					
<b>Electromagnetic</b>					
51102	M140RS/120	F40T12 1 Lamp	120	Rapid Start	10
51104	M234RS/120	F40T12/ES 2 Lamp	120	Rapid Start	10
51106	M240RS/120	F40T12 2 Lamp	120	Rapid Start	10
51108	M240RS/277	F40T12 2 Lamp	277	Rapid Start	10
51114	M296HO/RS/120	F96T12/HO 2 Lamp	120	Rapid Start	4
51116	M296HO/RS/277	F96T12/HO 2 Lamp	277	Rapid Start	4
51110	M296IS/120	F96T12 2 Lamp	120	Instant Start	6
51112	M296IS/277	F96T12 2 Lamp	277	Instant Start	6
<b>Plastic Sign</b>					
57102	MSB/0412/12	Sign Ballast 1-2 Lamp 4-12'	120	Rapid Start	1/4
57104	MSB/0620/24	Sign Ballast 2-4 Lamp 6-20'	120	Rapid Start	1/4
57106	MSB/1224/24	Sign Ballast 2-4 Lamp 12-24'	120	Rapid Start	1
57110	MSB/1240/46	Sign Ballast 4-6 Lamp 12-40'	120	Rapid Start	1
57108	MSB/2040/24	Sign Ballast 2-4 Lamp 20-40'	120	Rapid Start	1
57112	MSB/2448/46	Sign Ballast 4-6 Lamp 24-48'	120	Rapid Start	1

## Bulb and Base Identification Guide

### BULB SHAPES

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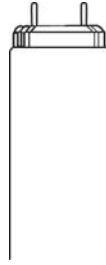
**Circline**



**T5**



**T6**



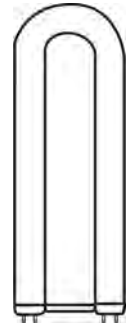
**T8**



**T10**



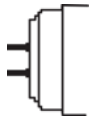
**T12**



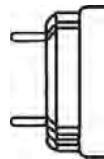
**U-Bend**

### BASE TYPES

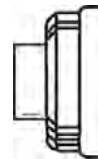
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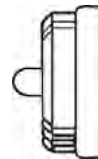
**Miniature  
Bi-Pin**



**Medium  
Bi-Pin**



**Recessed DC**



**Single Pin**

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA
<b>Preheat Lamps</b>			
F18T8CW/K24	F24"T8CW/4	F18T8/CW/24	F18T8CW/K24
F18T8CW/K26	F26"T8CW/4	F16T8/CW/26	F18T8CW/K26
F18T8CW/K28	F28"T8CW/4	F17T8/CW/28	F18T8CW/K28
F18T8CW/K30	F30"T8CW/4	F18T8/CW/30/ALTO	F18T8CW/K30
F20T12/ULTRA50	-	F20T12/50U	-
F25T12CW/28	F25T12/CW/28	F25T12/CW/28	F25T12/CW/28
F25T12CW/33	F25T12/CW/33	-	F25T12/CW/33
<b>Ultra Efficient T-5</b>			
F14T5/830/ECO	F14W/T5/830/ECO	F14T5/830/ALTO	FP14/830
F14T5/835/ECO	F14W/T5/835/ECO	F14T5/835/ALTO	FP14/835
F14T5/841/ECO	F14W/T5/841/ECO	F14T5/841/ALTO	FP14/841
F21T5/830/ECO	F21W/T5/830/ECO	F21T5/830/ALTO	FP21/830
F21T5/835/ECO	F21W/T5/835/ECO	F21T5/835/ALTO	FP21/835
F21T5/841/ECO	F21W/T5/841/ECO	F21T5/841/ALTO	FP21/841
F28T5/830/ECO	F28W/T5/830/ECO	F28T5/830/ALTO	FP28/830
F28T5/835/ECO	F28W/T5/835/ECO	F28T5/835/ALTO	FP28/835
F28T5/841/ECO	F28W/T5/841/ECO	F28T5/841/ALTO	FP28/841
F28T8/850/ECO	F28W/T5/850/ECO	-	-
F35T5/835/ECO	F35W/T5/835/ECO	F35T5/835	FP35/835
F35T5/841/ECO	F35W/T5/841/ECO	F35T5/841	FP35/841
<b>Ultra Efficient T-5 High Output</b>			
F24T5/835/HO/ECO	F24W/T5/835/ECO	F24T5/835/HO/ALTO	FP24/835/HO
F24T5/841/HO/ECO	F24W/T5/841/ECO	F24T5/841/HO/ALTO	FP24/841/HO
F39T5/830/HO/ECO	F39W/T5/830/ECO	F39T5/830/HO/ALTO	FP39/830/HO
F39T5/835/HO/ECO	F39W/T5/835/ECO	F39T5/835/HO/ALTO	FP39/835/HO
F39T5/841/HO/ECO	F39W/T5/841/ECO	F39T5/841/HO/ALTO	FP39/841/HO
F54T5/830/HO/ECO	F54W/T5/830/ECO	F54T5/830/HO/ALTO	FP54/830/HO
F54T5/835/HO/ECO	F54W/T5/835/ECO	F54T5/835/HO/ALTO	FP54/835/HO
F54T5/841/HO/ECO	F54W/T5/841/ECO	F54T5/841/HO/ALTO	FP54/841/HO
F54T5/850/HO/ECO	F54W/T5/850/ECO	F54T5/850/HO/ALTO	-
<b>T-5 Ultra Efficient Circline</b>			
FC22T5/835	-	TL5C 22W/835	FPC22/835
FC22T5/841	-	TL5C 22W/840	FPC22/841
FC40T5/835	-	TL5C 40W/835	FPC40/835
FC40T5/841	-	TL5C 40W/840	FPC40/841

## Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA
<b>T-8 Rapid Start</b>			
F17T8/730/ECO	F17T8/SP30/ECO	F17T8/TL730/ALTO	FO17/730/ECO
F17T8/735/ECO	F17T8/SP35/ECO	F17T8/TL735/ALTO	FO17/735/ECO
F17T8/741/ECO	F17T8/SP41/ECO	F17T8/TL741/ALTO	FO17/741/ECO
F17T8/750/ECO	-	-	-
F17T8/830/ECO	F17T8/SPX30/ECO	F17T8/TL830/ALTO	FO17/830/ECO
F17T8/835/ECO	F17T8/SPX35/ECO	F17T8/TL835/ALTO	FO17/835/ECO
F17T8/841/ECO	F17T8/SPX41/ECO	F17T8/TL841/ALTO	FO17/841/ECO
F17T8/850/ECO	-	F17T8/TL850/ALTO	-
F25T8/730/ECO	F25T8/SP30/ECO	F25T8/TL730/ALTO	FO25/730/ECO
F25T8/735/ECO	F25T8/SP35/ECO	F25T8/TL735/ALTO	FO25/735/ECO
F25T8/741/ECO	F25T8/SP41/ECO	F25T8/TL741/ALTO	FO25/741/ECO
F25T8/750/ECO	-	-	-
F25T8/830/ECO	F25T8/SPX30/ECO	F25T8/TL830/ALTO	FO25/830/ECO
F25T8/835/ECO	F25T8/SPX35/ECO	F25T8/TL835/ALTO	FO25/835/ECO
F25T8/841/ECO	F25T8/SPX41/ECO	F25T8/TL841/ALTO	FO25/841/ECO
F28T8/835/ECO	F28T8/SP35/UMX/ECO	F32T8/ADV835/EW/LL/ALTO	FO28/835/XP/SS/ECO
F28T8/841/ECO	F28T8/SP41/UMX/ECO	F32T8/ADV841/EW/LL/ALTO	FO28/841/XP/SS/ECO
F28T8/850/ECO	F28T8/SP50/UMX/ECO	F32T8/ADV850/EW/LL/ALTO	-
F32T8/730/ECO	F32T8/SP30/ECO	F32T8/TL730/ALTO	FO32/730/ECO
F32T8/735/ECO	F32T8/SP35/ECO	F32T8/TL735/ALTO	FO32/735/ECO
F32T8/741/ECO	F32T8/SP41/ECO	F32T8/TL741/ALTO	FO32/741/ECO
F32T8/750/ECO	F32T9/SP50/ECO	F32T8/TL750/ALTO	FO32/750/ECO
F32T8/765/ECO	F32T8/SP65/ECO	-	FO32/765/ECO
F32T8/830/ECO	F32T8/SPX30/ECO	F32T8/TL830/ALTO	FO32/830/ECO
F32T8/830/ECO/HL	F32T8/XL/SPX30/HL/ECO	F32T8/ADV/830/ALTO	-
F32T8/835/ECO	F32T8/SPX35/ECO	F32T8/TL835/ALTO	FO32/835/ECO
F32T8/835/ECO/HL	F32T8/XL/SPX35/HL/ECO	F32T8/ADV835/ALTO	-
F32T8/841/ECO	F32T8/SPX41/ECO	F32T8/TL841/ALTO	FO32/841/ECO
F32T8/841/ECO/HL	F32T8/XL/SPX41/HL/ECO	F32T8/ADV841/ALTO	-
F32T8/850/ECO	F32T8/SPX50/ECO	F32T8/TL850/ALTO	FO32/850/ECO
F32T8/850/ECO/HL	F32T8/XL/SPX50/HL/ECO	F32T8/ADV850/ALTO	-
F32T8/865/ECO	-	-	-
F32T8BLB	-	-	-
F32T8/ULTRA950	-	F32T8/TL950	FO32/950/48in
F40T8/735/M	F40T8/SP35	F40T8/TL735/ALTO	FO40/735/ECO
F40T8/741/M	F40T8/SP41	F40T8/TL741/ALTO	FO40/741/ECO
F58T8/840	F58T8/841PLYXLR	-	-
F70T8/840/M	F70T8/840PLYXLR	-	-




HALCO	GE.	PHILIPS	OSRAM/SYLVANIA
<b>T-10 Rapid Start</b>			
F40T10/955	-	-	-
F40T10/ULTRA50	-	-	-
<b>T-12 Rapid Start</b>			
F34CWES/ECO	F34CW/RS/MM/ECO	F34CW/RS/EW/ALTO	F34CW/SS/ECO
F40CWX	-	F40/CWX	F40CWX
F40DX	F40/DX/ECO	F40/DX/ALTO	F40/DX
F40/ULTRA50	F40/SPX50	F40T12/850/ALTO	-
F40/350BL	F40BL	F40T12/Blacklight	F40/350BL
F40/730	F40/SP30/ECO	-	F40/D30/ECO
F40/735	F40/SP35/ECO	-	F40/D35/ECO
F40/741	F40/SP41/ECO	-	F40/D41/ECO
F40/950	F40/C50/ECO	F40/C50	F40DSGN50
F40BLB	F40BLB	-	F40/BLB/RP
<b>Instant Start - Slimline</b>			
F96T8/735/M	F96T8/SP35	F96T8/TL735/PLUS/ALTO	FO96/735/ECO
F96T8/741/M	F96T8/SP41	F96T8/TL741/PLUS/ALTO	FO96/741/ECO
F96T8/850/M	F96T8/SPX50	F96T8/TL850/PLUS/ALTO	FO96/850/ECO
F96CWES/ECO	F96T12/CW/MM/ECO	F96T12/CW/EW/ALTO	F96T12/CW/SS/ECO
F96DX/ECO	F96T12/DX	F96T12/DX/ALTO	F96T12/DX/SS
F96T50	F96T12/SPX50	F96T12/50U/ALTO	-
<b>Rapid Start High Output &amp; Very High Output</b>			
F48CWVHO/M	F48T12/CW/1500	F48T12CW/VHO-O	F48T12/CW/VHO
F72CWVHO/M	F72T12/CW/1500	F72T12/CW/VHO-O	F72T12/CW/VHO
F96CWHOES/ECO	F96T12/CW/HO/MM/ECO	F96T12/CW/HO/EW/ALTO	F96T12/CW/HO/SS/ECO
F96CWHOO/ECO	-	F96T12/CW/HO-O/ALTO	F96T12/CW/HO/CT/ECO
F96CWVHO/M	F96T12/CW/1500	F96T12/CW/VHO-O	F96T12/CW/VHO

## Cross Reference Guide

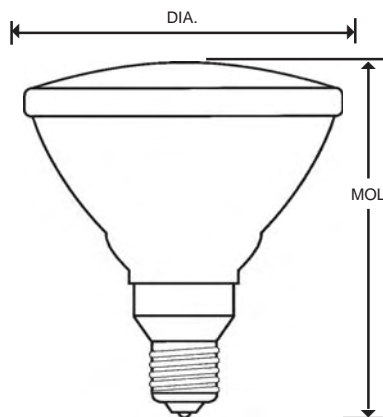
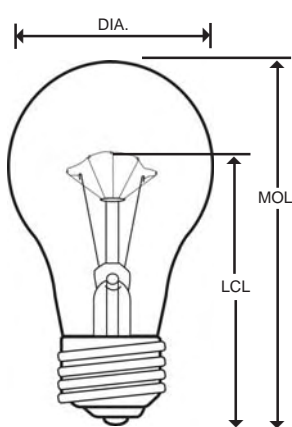
HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA
<b>U-Bend Fluorescent</b>			
FB32/730/6/ECO	F32T8/SP30/U/6	FB32T8/TL730/6/ALTO	FBO32/730/6/ECO
FB32/735/6/ECO	F32T8/SP35/U/6	FB32T8/TL735/6/ALTO	FBO32/735/6/ECO
FB32/741/6/ECO	F32T8/SP41/U/6	FB32T8/TL741/6/ALTO	FBO32/741/6/ECO
FB32/750/6/ECO	-	FB32T8/TL750/6/ALTO	FBO32/750/6/ECO
FB32/830/6/ECO	F32T8/SPX30/U/6	FB32T8/TL830/6/ALTO	FBO32/830/6/ECO
FB32/835/6/ECO	F32T8/SPX35/U/6	FB32T8/TL835/6/ALTO	FBO32/835/6/ECO
FB32/841/6/ECO	F32T8/SPX41/U/6	FB32T8/TL841/6/ALTO	FBO32/841/6/ECO
FB32/850/6/ECO	F32T8/SPX50/U/6	FB32T8/TL850/6/ALTO	-
FB31/830/ECO	F31T8/SPX30/U	-	FBO31/830
FB31/835/ECO	F31T8/SPX35/U	-	FBO31/835
FB31/841/ECO	F31T8/SPX41/U	-	FBO31/841
FB31/850/ECO	-	-	-
FB34CWU6ES/SG	F35CW/U/6/MM	FB34CW/6/EW/ALTO	FB34/CW/6/SS
FB34WWU6/ES	F35WW/U/6/MM	FB34WW/6/EW/ALTO	FB34/WW/6/SS
FB34CWU3ES/M	F35CW/U/3/MM	FB34CW/3/EW	-
<b>Brand Name Cross Reference</b>			
T5	T5	Silhouette™	Pentron®
T8	T8	TL70/TL80™	Octron®
730	SP30	SPEC30 or 730	D30 or 730
830	SPX30	30U or 830	D830
950	C50	C50	DSGN50
ES (Energy Saver)	WM (Watt-Miser®)	EW (Econo-Watt®)	SS (Supersaver®)
Eco-Shield®	ECOLUX®	ALTO®	ECOLOGIC®
ULTRA50	SPX50	50U	850
U-Bend	Mod-U-Line®	U-Bent	Curvalume®

## Symbols, Footnotes and Abbreviations

SYMBOLS		ABBREVIATIONS	
H	Exclusive to Halco Lighting.	/850	Suffix used to indicate lamps with CRI of 80+ and color temperature of 5000K.
†	New product introduced within the past year.	/865	Suffix used to indicate lamps with CRI of 80+ and color temperature of 6500K.
\$	Energy saving product.	/950	Suffix used to indicate lamps with CRI of 90+ and color temperature of 5000K.
(E)	This lamp meets Federal Minimum Efficiency standards.	/955	Suffix used to indicate lamps with CRI of 90+ and color temperature of 5550K.
	ProLume® Eco-Shield® Low-Mercury Fluorescent lamps pass the Federal TCLP for hazardous wastes.	AB	Code abbreviation for Artic Brite lamps.
x	Product will be discontinued when inventory is depleted.	BL	Code abbreviation for Blacklight lamps.
FOOTNOTES		BLB	Code abbreviation for Blacklight-Blue lamps.
1	Average life under specified test conditions with lamps turned off and restarted every three hours. Lamp life is longer if lamps are started less frequently.	CR	Code abbreviation for ProLume® electronic ballasts for circline lamps.
2	Commercial average life under specified test conditions with lamps turned off and restarted every twelve hours. Lamp life is longer if lamps are started less frequently.	CW	Code abbreviation for Cool White lamps.
3	Nominal length is measured from face of base to maximum distant outside point of U-Bend. Leg spacing measured center to center is approximately 6" for /6 product, 3-5/8" for /3 product and 1-5/8" for FB31 product.	CWX	Code abbreviation for ProLume® Cool White Deluxe lamps.
4	Initial lumens are based on 800mA. operation. For 1000mA. operation, lumens are approximately 10% higher and watts approximately 15% higher.	DL	Code abbreviation for Daylight lamps.
5	This energy saving lamp is only recommended for use on high power factor lead, indoor ballasts that meet ANSI standards. The lamp is not recommended for use in drafty areas or locations where the ambient temperature drops below 60°F, except as noted. Do not operate on low power factor ballasts, reduced light or reduced current ballasts, dimming ballasts or emergency system inverter ballasts.	DX	Code abbreviation for Daylight lamps.
6	Meets the National Energy Policy Act (EPACT) of 1992 exemption for outdoor or cold temperature applications only.	E	Code abbreviation for ProLume® electronic ballasts.
7	Lamp designed for use with Programmed Start ballast. Lamp operates at 170mA. Minimum starting temperature is -15°F, with peak operating temperature at 95°F.	/ECO	Suffix used to indicate Eco-Shield® TCLP Compliant lamps.
ABBREVIATIONS		EP	Code abbreviation for ProLume® ProFormance® electronic ballasts.
3	Code abbreviation for 3-5/8" U-Bend lamps.	/ES	Suffix used to indicate Energy Saving Fluorescent lamps.
6	Code abbreviation for 6" U-Bend lamps.	FB	Code abbreviation for Fluorescent U-Bend lamps.
/120	Suffix used to indicate 120 volt ballasts.	FC	Code abbreviation for Fluorescent Circline lamps.
/277	Suffix used to indicate 277 volt ballasts.	/HL	Suffix used to indicate High Lumen lamps.
/730	Suffix used to indicate lamps with CRI of 70+ and color temperature of 3000K.	/HO	Suffix used to indicate High Output lamps.
/735	Suffix used to indicate lamps with CRI of 70+ and color temperature of 3500K.	HOES	Code abbreviation for High Output Energy Saver lamps.
/741	Suffix used to indicate lamps with CRI of 70+ and color temperature of 4100K.	HOO	Suffix used to indicate High Output lamps for outdoor or low temperature operation.
/750	Suffix used to indicate lamps with CRI of 70+ and color temperature of 5000K.	/IC	Suffix used to indicate ProLume® Industrial/Commercial service lamps.
/765	Suffix used to indicate lamps with CRI of 70+ and color temperature of 6500K.	IS	Code abbreviation for Instant Start ballasts and lamps.
/830	Suffix used to indicate lamps with CRI of 80+ and color temperature of 3000K.	/M	Suffix used to indicate Major brand Fluorescent lamps (GE, Philips, Osram/Sylvania).
/835	Suffix used to indicate lamps with CRI of 80+ and color temperature of 3500K.	M	Code abbreviation for ProLume® electromagnetic ballasts.
/841	Suffix used to indicate lamps with CRI of 80+ and color temperature of 4100K.	MSB	Code abbreviation for ProLume® electromagnetic plastic sign ballasts.
		/MV	Suffix used to indicate Multi-Volt (120-277) ballasts.
		NL	Code abbreviation for Natural Light lamps.
		PH	Code abbreviation for Preheat Start ballasts.
		PS	Code abbreviation for Programmed Start ballasts.
		/PT	Suffix used to indicate ballast with pigtail wires.
		/R	Suffix used to indicate ballast designed for residential use.
		RS	Code abbreviation for Rapid Start ballasts.
		SL	Code abbreviation for Full Spectrum lamps.
		/SL	Suffix used to indicate ballast with slim case design.
		T50	Code abbreviation for Titen50 lamps.
		VHO	Suffix used to indicate Very High Output lamps.
		WW	Code abbreviation for Warm White lamps.



## HOW TO MEASURE A BULB



**DIA:** The diameter of a bulb at its widest point, measured in eighths of an inch.

**MOL:** Maximum Overall Length from the top of the bulb to the bottom of the base, measured in inches.

**LCL:** Distance from the center of the light source to the bottom of the base, measured in inches.

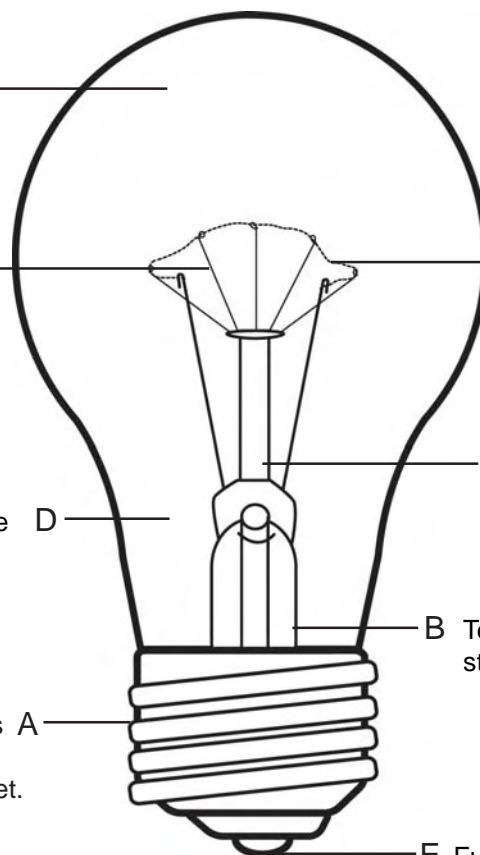
## LAMP CONSTRUCTION

Special chemicals are applied inside lamp and on the filament to protect against premature failure.

Long life lamps utilize five filament supports to enhance longevity and guard against filament sagging and breakage.

Argon and Nitrogen gases are used for washing and filling lamps.

Lamp bases made with brass or nickel-plated brass do not freeze or corrode in the socket.



**G** Long life lamps utilize long, thick coiled filaments.

**C** Stem type is matched to lamp type to enable exact positioning of filament.

**B** Tempered glass stem provides strength and durability.

**E** Fused lead - wire carries electricity from the base to the filament and guards against potential fire hazards.

## GLOSSARY OF TERMS

**2-Tap:** HID ballast that operates at two input voltages: 120, 277.

**4-Tap:** HID ballast that operates at four input voltages: 120, 208, 240, 277.

**5-Tap:** HID ballast that operates at five input voltages: 120, 208, 240, 277, 480.

**Accent Lighting:** Directional lighting used to highlight a particular object or area.

**Alternating Current (AC):** Electron flow that periodically reverses polarity and direction of travel through a circuit.

**Ambient Lighting:** The overall general lighting in an area or room.

**Ampere (amp):** A standard unit of measurement of electrical current. Amps = Watts / Voltage

**ANSI (American National Standards Institute):** The organization that develops voluntary guidelines and product performance standards for the electrical and other industries.

**Arc Tube:** A completely sealed quartz or ceramic tube where an electrical arc occurs and generates light.

**Argon:** Inert gas used in incandescent and fluorescent lamp types. In incandescent light sources, argon retards evaporation of the filament.

**Auto-Transformer:** A type of transformer that electrically connects the primary and secondary coils. This type of circuit is used to make many ballasts smaller and more efficient.

**Average Rated Life:** An average rating, in hours, indicating when 50% of a large group of lamps have failed, when operated at nominal lamp voltage and current. Manufacturers use 3 hours per start for fluorescent lamps and 10 hours per start for HID lamps when performing lamp life testing procedures. Every lamp type has a unique mortality curve that depicts its average rated life.

**Ballast:** A device used to obtain the necessary circuit conditions (voltage, current and waveform) for starting and operating an electric-discharge lamp. All fluorescent and HID light sources require a ballast for proper operation.

**Ballast Efficacy Factor (BEF):** The ratio of a ballasts' light output to input power. Useful for comparing the efficiency of two different ballasts on a light output to power consumption basis.  
BEF = % Ballast Factor / Input Power (Watts)

**Ballast Factor (BF):** The measured ability of a particular ballast to produce light from the lamp(s) it powers. Ballast factor is derived by dividing the lumen output of a particular lamp/ballast combination by the lumen output of the same lamp(s) on a reference ballast.

**Ballast Kit:** A kit developed to include all necessary parts for the installation of a new ballast. For HID ballast kits this includes: ballast, capacitor, ignitor (if used), and all necessary mounting hardware. For CFL kits this includes: ballast, mounting plate, lead wire set, wire-removal tool and mounting hardware.

**Ballast Loss:** The total power lost in the operation of the ballast measured in watts. This power is given off as heat energy. It is equivalent to the difference between the input power and the lamp wattage.

**Base:** The base holds the lamp in place in the fixture and conducts electricity from the circuit to the lamp. It can be designed to dissipate heat.

**Beam Angle:** The angle between the two directions for which the intensity (candlepower)

**Capacitor:** A device that can be used to store energy in an electric circuit. This is done via an electric field between two closely spaced conductors.

**Cathode Guard:** Metal band encircling the cathode of a fluorescent lamp, used to collect the evaporating particles from the cathode, greatly reducing end-blackening.

## GLOSSARY OF TERMS

**Center Beam Candlepower (CBCP):** Refers to the luminous intensity at the center of the beam of a reflector lamp; measured in candelas.

**Chromaticity:** The aspect of color that includes consideration of its dominant wavelength and purity.

**Class H:** An operating temperature classification for electrical components established by Underwriters Laboratories. Allows operation up to 180°C.

**Class P:** A classification for thermally protected ballasts established by Underwriters Laboratories. In Class P ballasts, internal thermal cutoff removes the input power when the specified temperature limits are exceeded.

**Coefficient of Utilization (CU):** The fraction of initial lamp lumens that reach the work plane. It is a function of luminaire efficiency, room surface reflectance, and room shape.

**Coil:** Windings of copper wire surrounding a core in a ballast.

**Color Corrected:** Refers to a lamp with a special phosphor or coating to give it a color rendering profile similar to natural daylight.

**Color Rendering Index (CRI):** A measurement to rate a lamp's ability to render an object's color on a scale of 0-100, the higher the CRI, the more true to life colors appear, as they would in natural daylight.

**Color Spectrum:** The visible light spectrum, ranging between 380 (violet) and 770 (red) nanometers in the electromagnetic spectrum.

**Color Temperature:** The actual color of a light source, also referred to as Correlated Color Temperature (CCT), measured in degrees Kelvin (K). Typical color temperature is:

2700K Incandescent/Fluorescent - Warm White  
3000K Halogen/Fluorescent - Soft White  
3500K Fluorescent - White  
4100K Fluorescent - Cool White  
5000K Fluorescent - Natural White  
6500K Fluorescent - Daylight

**Compact Fluorescent Lamp:** A small, fluorescent lamp, often used as an alternative to incandescent lighting, that utilizes small diameter tubes that are bent so that they begin and end in a single base. The lamp life is about 10 times longer than incandescent lamps and is 3-4 times more efficacious.

**Constant Wattage Auto-Transformer (CWA):** A type of HID ballast reactor that applies a constant wattage to the lamp and uses an auto-transformer to step-up the voltage.

**Core:** A component of an electromagnetic ballast, which is surrounded by the coil. Core is composed of steel laminations or a solid ferrite material.

**Core and Coil Ballast:** Another term for an electromagnetic ballast.

**Cove Lighting:** Refers to light sources mounted above a ledge or in a recess that distribute light upward for ambient lighting.

**Crest Factor (Lamp Current Crest Factor):** The ratio of the peak lamp current to RMS or average lamp operating current. High current crest factors are detrimental to lamp life and performance. ANSI standard for lamp current crest factor is <1.7.

**CSA:** Canadian Standards Association. An association that generates product performance and safety standards for many Canadian industries.

**cUL:** Approval from Underwriters Laboratories for use in Canada.

## GLOSSARY OF TERMS

**Current:** A measure of the rate of flow of electricity, expressed in amperes (A).

**Dedicated Voltage:** A ballast designed to work on one specific input voltage.

**Design Amperes:** The approximate current that the lamp will draw at design voltage.

**Design Lumens:** Lumen value at 40% of rated average life. Also called Mean Lumens.

**Diffusion:** The even redirection or spreading of light by a lens or diffuser.

**Directional Lighting:** Illumination on the workplane or on an object predominantly from a single direction.

**Discharge Lamp:** A light source that produces light by passing a current between electrodes through a vapor or gas. Includes fluorescent and high intensity discharge lamps.

**Double-Ended Lamp:** Lamps that have two bases or points of electrical connection that provide extra stability in rough service applications.

**Down Lighting:** A direct lighting unit, usually small, that aims the light downward. Can be recessed, surface mounted or suspended.

**Dual Connection:** A CFL ballast with both side and bottom exits for the lead wires, allowing use for multiple applications.

**Efficacy:** Lumen output per unit of power supplied to the ballast.

**Electrode:** Metal filaments that emit electrons in a fluorescent lamp.

**Electromagnetic Ballast:** A low-frequency ballast that operates through the use of current carrying coils assembled on a magnetic core.

**Electronic Ballast:** A ballast that uses semiconductor components to increase the frequency of fluorescent lamp operation (typically in the 20-40 kHz range). Smaller inductive components provide the lamp current control. Fluorescent system efficiency is increased due to high frequency lamp operation. Results are increased lamp efficacy, reduced ballast losses and lighter, smaller ballasts compared to electromagnetic ballasts. Electronic ballasts may also be used with HID (high intensity discharge) lamps.

**Elliptical Reflector:** Incandescent lamp with a reflector shell that is elliptically shaped. Focuses light immediately in front of the lamp, which reduces absorption and increases efficiency.

**EMI/RFI:** Electromagnetic Interference or Radio Frequency Interference. Unintentionally generated power during the operation of a ballast that is capable of interfering with other electrical devices operating at high frequencies.

**End Blackening:** Darkening around the ends of a fluorescent tube caused by particles evaporating from the cathode and adhering to the glass. Lamps made with cathode guards greatly reduce this occurrence.

**End-of-Life (EOL) Protection:** Circuit in a compact fluorescent ballast that removes power supply to the lamp during abnormal lamp end-of-life. Ballast will reset when a new lamp is installed.

**Energy:** A measure of work done by an electrical system over a given period of time; measured in kilowatt-hours (kWh).

**Energy Policy Act (EPACT):** Energy legislation originally passed by Congress in 1992, and updated periodically, mandating labeling and minimum energy efficiency requirements for many commonly used incandescent and fluorescent lamps.

**Energy Survey:** Systematic cost comparison of an existing system to a proposed system, accounting for electrical, material, maintenance and labor costs.



## GLOSSARY OF TERMS

**Etch:** Markings on the glass envelope or shell of a lamp designating product description, logo and/or brand name.

**Exitance:** The total light that comes off of a surface. Exitance is dependent upon the illuminance on and reflectance off the surface.

**Eyeball:** Fixture, usually recessed, which can be rotated to point in a desired direction.

**Field Angle:** The angle of the cone of light from reflector lamps encompassing the central part of the beam out to the angle where the intensity is 10% of maximum.

**Filament:** Wire used in incandescent lamps, usually made of tungsten and often coiled, that emits light when heated by an electrical current.

**Fixture:** Luminaire without lamps.

**Floodlight:** A reflector lamp designed to produce a broad, relatively diffused beam of light.

**Fluorescent Lamp:** A glass tube coated on the inside with a fluorescent substance that gives off light when a stream of electrons from the cathode excites mercury vapor in the tube.

**Flux:** The basic measure of light flow that includes only visible light and is weighted to match the response of the human eye; measured in lumens.

**Footcandle (fc):** A unit measurement of direct illumination. One footcandle is equal to one lumen per square foot.

**Frequency:** A measurement of the number of cycles per second; the SI base unit is Hertz (Hz).

**Full Spectrum:** Broad spectrum light source capable of producing colors throughout the entire range of the visible spectrum, simulating actual sunlight.

**General Lighting:** Uniform light throughout an area, with no special provisions for task lighting or accent lighting.

**Glare:** An interference with visual perception caused by an uncomfortably bright light source or reflection within one's field of view.

**Grounding:** The connection of an electrical component that is a conductor to the "ground" or earth so that the electrical current can pass off into it.

**Halogen Cycle:** A regenerative cycle of tungsten and halogen atoms, which prevents blackening of the lamp envelope during the life of the lamp.

**Halogen Lamp:** An incandescent lamp with a filament that is surrounded by halogen gases. Halogen gases allow the filaments to be operated at higher temperatures and higher efficacies.

**Harmonic Distortion:** Distortion of an AC waveform caused by multiples of the fundamental frequency.

**Head:** Luminaire for a track-lighting system.

**Hertz:** A unit of frequency denoted as Hz. One Hz is equivalent to one cycle per second. Can also be measured in kHz, or one thousand cycles per second.

**High Intensity Discharge (HID) Lamp:** Metal Halide, High Pressure Sodium, Low Pressure Sodium and Mercury Vapor lamp types.

**High Output Fluorescent (HO):** Fluorescent lamps designed to be used with an 800 milliamper ballast. Able to operate at low temperatures (down to 0°F) and still produce high light levels.

**High Power Factor:** A power factor above 0.90 or 90%.

**High Pressure Sodium (HPS) Lamp:** High intensity discharge light sources which produce light by an electrical discharge through sodium vapor operating at relatively high pressures and temperatures.

**High Voltage:** Voltages of 208 or higher.

## GLOSSARY OF TERMS

**HO:** High Output. A lamp or ballast that operates at 800mA is considered high output.

**HX-HPF:** A high reactance auto-transformer that operates at a high power factor. A type of circuit used in HID ballasts.

**HX-NPF:** A high reactance auto-transformer that operates at a normal power factor. A type of circuit used in HID ballasts.

**Illuminance:** Light arriving at a surface, expressed in lumens per unit area; 1 lumen per square foot equals 1 footcandle, while 1 lumen per square meter equals 1 lux.

**Illumination:** The result of the use of light.

**Incandescent Lamp:** A light source that produces light by the heating of a filament by an electric current.

**Inches to Millimeters Conversion:** To calculate the metric equivalent of inches in millimeters (mm), multiply inches by 25.4.

**Indirect Lighting:** Luminaires that distribute 90 - 100 percent of their light upward to be reflected by the ceiling.

**Induction Lighting:** A means of lighting, which uses RF induction of radio waves or microwaves to produce luminescence. Induction lamps have no electrodes inside the chamber and generally, therefore, have longer life than standard incandescent lamps.

**Infrared:** Radiant energy in the wavelength range of about 770 to 1100 nanometers (nm). Energy in this range is not visible to the naked eye, but can be sensed by the skin. Applications include heat lamps, photography, medical therapy, and industry.

**Initial Lumens:** The measured luminous output of a new light source.

**Input Voltage:** Voltage required from a power supply for proper operation of a ballast.

**Input Watts:** The total power input to the ballast which includes lamp watts and ballast losses.

**Instant Start:** A type of fluorescent lamp-ballast circuit designed to start fluorescent lamps as soon as the power is applied. Originally, instant-start circuits were developed to eliminate separate mechanical starter devices. Slimline fluorescent lamps operate only on instant start circuits.

**Intensity:** The light emitted from a source. Intensity varies given the direction at which one views the source. Intensity does not vary with distance.

**Kelvin Temperature:** See color temperature

**Kilowatt (kw):** A measure of electrical power equal to 1000 watts.

**Kilowatt Hour (kwh):** The standard measurement of electrical energy consumption. One kilowatt hour is equal to one kilowatt of electricity used over the period of one hour. Also the typical billing unit used by electrical utilities.

**Krypton:** A heavy inert gas used in incandescent lamps which allows the filament to glow hotter and brighter and last longer.

**Lamp:** Lighting industry term used for a light bulb.

**Lamp Dimensions:** Bulb designations consist of a letter(s) to indicate shape and a number to indicate the diameter in eighths of an inch.

**Lens:** A glass or plastic element used in luminaires to change the direction and control the distribution of light rays.

**Light:** Radiant energy that is capable of producing a visual sensation.

**Light Center Length (L.C.L.):** The distance from a reference point, usually the bottom of the lamp base, to the center of the light source (filament).

## GLOSSARY OF TERMS

**Light Loss Factor:** Used to calculate or project the performance of a lighting system after a given period of time under certain conditions; includes environmental conditions, such as temperature, voltage, dust and or dirt and lamp depreciation.

**Louver:** An assembly of slats or crosspieces in a lighting fixture, used to control light intensity and glare.

**Low Pressure Sodium (SOX):** High Intensity Discharge lamp that uses pressurized sodium vapor to produce light.

**Lumen:** International unit (SI) of luminous flux or quantity of light; expresses quantity of light regardless of direction.

**Lumen Depreciation:** The gradual decline in light output from a light source over time due to filament deterioration and bulb darkening.

**Lumen Maintenance:** A measurement of how a lamp maintains its light output over time.

**Lumens Per Watt (LPW):** A measure of the efficacy (efficiency) of a light source. The number is achieved by dividing lumens produced by watts consumed.

**Luminaire:** A complete lighting unit including lamps, housing, lens and ballast if required. All the necessary components to make what we commonly refer to as a "fixture".

**Luminance (L):** Light reflected in a particular direction; the photometric quantity most closely associated with brightness perception, measured in units of luminous intensity (candelas) per unit area (square feet or square meters).

**Lux (lx):** A unit of illuminance equal to 1 lumen per square meter.

**Maximum Overall Length (MOL):** The overall length of a lamp, from the top of the shell to the bottom of the base.

**Mean Lumens:** The measured output of a light source at 40% of lamp life. Also called design lumens.

**Mercury Vapor Lamp:** A high intensity discharge light source operating at a relatively high pressure (about 1 atmosphere) and temperature in which most of the light is produced by radiation from excited mercury vapor. Phosphor coatings on some lamp types add additional light and improve color rendering.

**Metal Halide Lamp:** A high intensity light source in which the light is produced by the radiation from mercury, plus halides or metals such as sodium, scandium, indium and dysprosium. Some lamp types may also utilize phosphor coatings.

**Multi-Volt:** A fluorescent electronic ballast that has a universal input voltage; typically these ballasts have an acceptable input voltage range of 108V to 305V.

**Nanometer:** A unit of length equal to  $10^{-9}$  meters; commonly used as a unit of wavelength.

**National Electric Code (NEC):** A nationally accepted electrical installation code to reduce the risk of fire, developed by the National Fire Protection Association.

**Neodymium:** A rare earth element used to produce full spectrum incandescent lamps; also know as daylight or natural light. They use a colored glass shell to filter out the yellow light produced by standard incandescent lamps.

**Nominal Input Voltage:** The input voltage at which the ballast is designed to operate. The nominal voltage allows for normal levels of variation without affecting ballast operation.

**Nominal Length:** A measurement for Fluorescent lamp length based on the length of the lamp plus an allowance for the luminaire's lamp holders.

## GLOSSARY OF TERMS

**Nominal Open Circuit Voltage (OCV):** The rated open circuit voltage for a ballast, typically at the center of an acceptable range for this ballast.

**Normal Power Factor:** A power factor below 0.90 or 90%. Typically low power factor ballasts operate at <0.50 or <50%.

**Ohm's Law:** A scientific law which states that current (amperes) in a circuit depends on resistance (ohms) and applied electromotive force (volts).  $Current (I) = Voltage (E) / Resistance (R)$

**Operating Position:** Lamps may be operated in any position unless otherwise noted.

**PAR Lamp:** PAR is an acronym for parabolic aluminized reflector. A PAR lamp, which may utilize either an incandescent filament, a halogen filament tube or an HID arc tube, is a precision pressed-glass reflector lamp. PAR lamps rely on both the internal reflector and prisms in the lens for the control of the light beam.

**Parallel:** A type of circuit in which the electrical pathway splits and flows to each lamp simultaneously. In this type of circuit each lamp is operated independently and therefore will continue to operate even if the other lamp fails.

**Phosphor:** An inorganic chemical compound processed into a powder and deposited on the inner glass surface of fluorescent tubes and some HID and LED. Phosphors are designed to absorb short wavelength ultraviolet radiation and to transform and emit it as visible light.

**Photometry:** The science of measuring visible light in units that are weighted according to the sensitivity of the human eye to certain wavelengths of light.

**Photopic Vision:** Refers to vision involving the cones of the eye; used in reference to the adaptation of the eye to illuminance of more than 3.4 candelas per square meter.

**Pigtail:** An adaptation to a fluorescent ballast that connects multiple wires together into one convenient socket. Most often used for Circline lamps.

**Potting:** A compound, typically made of asphalt and silica, that is used to fill the inside of a ballast.

**Power Factor:** A measurement indicating how efficiently a lighting system is using the power it is drawing. The ratio between power used (watts) and power being drawn from the line (volts-amperes). Expressed as a percent or a range from 0 to 1.0. The higher the percent the more efficiently the power is being used. High power factors are ratings of 0.9 (90%) or higher. Incandescent lamps are close to 1.0, magnetic ballasts can be as low as 0.5.

**Power Factor Corrected:** Ballasts that incorporate a means of Power Factor Correction but whose power factor is <90% and >50%.

**Preheat Start:** A fluorescent lamp-ballast circuit where the electrodes are heated or warmed by an auxiliary switch or starter before the lamps light up.

**Probe Start:** A starting method for HID lamps that involves the use of a probe to start the lamp. A large surge of voltage is applied to the probe in order to assist in starting the lamp.

**Programmed Start:** A fluorescent lamp-ballast circuit that uses a custom integrated circuit (IC), which monitors lamp and ballast conditions to ensure optimal system lighting performance. PS ballasts heat the lamp cathodes to 700°C prior to lamp ignition. This puts the least amount of stress on the lamp electrodes, resulting in maximum lamp life regardless of the number of lamp starts. Programmed-start ballasts are typically wired in series.

**Pulse Start.** A fluorescent lamp-ballast circuit that is designed with an ignitor to ignite the arc tube. Due to this, bulbs have no need for the starter electrode. Pulse start lamps are typically more efficient than standard counterparts.

## GLOSSARY OF TERMS

**Radiometry.** The science of measuring radiant energy, especially radiant energy in that portion of the total electromagnetic spectrum lying adjacent to the visible region.

**Rapid Start.** A fluorescent lamp-ballast circuit which utilizes continuous cathode heating, while the system is energized, to start and maintain lamp light output at efficient levels. Rapid start ballasts may be either electromagnetic, electronic or of hybrid designs. Full-range fluorescent lamp dimming is only possible with rapid start systems.

**Reactor:** The most basic circuit type for an HID ballast, made of a single coil, which acts as an inductor.

**Reference Ballast:** Laboratory device used to provide ANSI-specified measurements of initial and mean lamp lumens.

**Reflector Lamp.** An incandescent, halogen compact fluorescent or HID lamp with a built-in reflecting surface. Incandescent and HID versions are made from a single piece of blow-molded soft or hard glass.

**Refraction.** The bending of light rays.

**Refractor.** A translucent fixture covering, such as a lens or diffuser that refracts or bends light rays.

**RFI:** See EMI/RFI

**Resistance.** A measure of resistance to flow of electrical current, expressed in ohms.

**Scotopic Vision.** Sight involving the eye's rods, which respond to low levels of lighting, below .034 candelas per square meter.

**Series:** A type of circuit in which the current flows through the lamps in sequence. The failure of one lamp results in the stoppage of current flow.

**Shroud:** A glass cylinder surrounding the arc tube in metal halide lamps to protect against the hot arc tube from breaking the glass bulb if an arc tube rupture occurs. It reduces the risk of using metal halide lamps in open fixtures.

**Single-Ended Lamp:** Lamps that have one base or point of electrical connection.

**SI:** International System of Units. Most widely used standards for measurement.

**Slim Case:** A reduced size case for fluorescent ballasts to allow for more versatile applications.

**Sound Rating:** A rating of the amount of sound produced in the normal operation of a ballast. "A" is the normal favorable rating, producing the lowest amount of sound, while "E" is the least favorable rating, producing the greatest amount of audible noise.

**SOX:** Low Pressure Sodium abbreviation term.

**Spectral Power Distribution:** A graph of the radiant power emitted by a light source as a function of wavelength. SPD's provide a visual profile of the color characteristics of the light source throughout the visible part of the spectrum.

**Spiral Lamp:** A helical-shaped long life compact fluorescent lamp.

**Spotlight:** A lamp designed to produce a narrow beam angle to illuminate a specifically defined area.

**Starter (Ignitor):** A device used in conjunction with a ballast to start preheat fluorescent lamps.

**Super CWA:** Constant wattage, Auto-Transformer for use with Pulse Start Metal Halide Lamps.

**Task Lighting:** Lighting directed to a specific surface or area that provides illumination for specific tasks.

## GLOSSARY OF TERMS

**TCLP Test:** The Toxicity Characteristic Leaching Procedure (TCLP) test, specified in the Resource Conservation and Recovery Act (RCRA) of 1990, is used to characterize fluorescent lamp waste as hazardous or non-hazardous waste. The TCLP test measures the ability of the mercury in a lamp to leach from a landfill into ground water under very aggressive and reactive conditions.

**Thermal Protector:** A device used in a ballast to detect when the maximum temperature of the ballast has been exceeded and when to remove input power. Thermally protected ballasts that meet UL certifications are classified as “Class P.”

**Total Harmonic Distortion (THD):** A measure of the distortion of an electrical wave form. Excessive THD may cause adverse effects to the electrical system.

**Trigger Start:** A circuit that eliminates the starter and allows for instant starting of preheat lamps.

**Troffer:** A long recessed lighting fixture, usually installed flush with the ceiling.

**UL:** Underwriters Laboratories. Laboratory that sets safety standards for building materials, electrical appliances, and other products.

**Ultraviolet:** Radiant energy in the wavelength range of about 100 to 380 nanometers (nm). This light is invisible to the naked eye and is also known as black light. Applications include:

Blacklight	320-400 nm
Germicidal	220-300 nm
Ozone-producing	180-220 nm

**Very High Output (VHO) Lamps:** Fluorescent lamps designed to be used with a 1500 milliampere ballast.

**Visible Spectrum:** Radiant energy in the wavelength range of about 380 to 770 nanometers (nm). The light that can be seen by the human eye and produces what we also call the “color spectrum.”

**Volt:** The unit of electromotive force (emf). The difference in electrical potential that will cause a current of one ampere to flow through a resistance of one ohm.

**Voltage Rating:** The recommended operating voltage for a lamp.

**Watt:** A unit of electrical power. One watt is equal to one ampere of current flowing through one ohm of resistance.

**Wavelength:** Distance between two successive points of a periodic wave; the wavelengths of light are expressed in nanometers (nm).

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# Quality Assurance

*At Halco Lighting Technologies, we are committed to quality and service.*

*We measure our success by one standard, customer satisfaction.*

*With this in mind, we offer you the following:*

*Should you encounter any product from Halco Lighting Technologies that fails to perform according to specifications, contact your account representative immediately. If our product is found to be defective in either material or workmanship, we will credit your account or replace the product at no charge. In order to better maintain our standard of quality, we reserve the right to inspect any defective product.*

*We make this assurance to clearly demonstrate our commitment to your satisfaction.*



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