

Linear Fluorescent lamps are an energy saving alternative to incandescent lighting and provide better light quality and color flexibility. Halco's family of ProLume® linear fluorescent lamps include T5, T8, T10 and T12 types in a variety of Kelvin temperatures and CRI ratings.

**Eco-Shield™** designates Halco's environmentally responsible TCLP-compliant, low mercury fluorescent lamps. Look for the EcoShield mark and green etch on a variety of ProLume lamps. Halco® recommends all mercury-containing lamps be recycled. Please check with your local and state laws regarding lamp recycling. For information on recycling regulations by state go to [www.lamprecycle.org](http://www.lamprecycle.org).

**ProLume Ultra Efficient T5 and T5 HO** lamps provide application flexibility with their ultra-slim design. All T5 lamps have the same surface brightness for uniform lighting, regardless of tube length. With improved tri-phosphors, ProLume lamps have excellent lumen maintenance of up to 94% and a CRI of 85. High Output lamps deliver up to 104 lumens per watt, about twice that of T8 and T12 lamps.

**ProLume EcoShield T8** lamps save up to 40% in energy costs compared to T12 lamps. ProLume T8 lamps are available in F17, F25, F32 and FB32, in both 700 and 800 series. All types are available in 3000, 3500, 4100 and 5000K. F32 lamps are also available in 6500K Daylight and ULTRA950 with a 98 CRI.

**ProLume T10 Ultra50** high lumen lamps operate on electronic or magnetic ballasts and have a higher maintained light output than standard T12 lamps. At 3600 lumens, two Ultra50 lamps can replace four T12 lamps to save up to 50% in energy and maintenance costs. ProLume T10 lamps provide crisp white light, at 5000K and a CRI rating of 88.

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ProLume Ultra Efficient T5



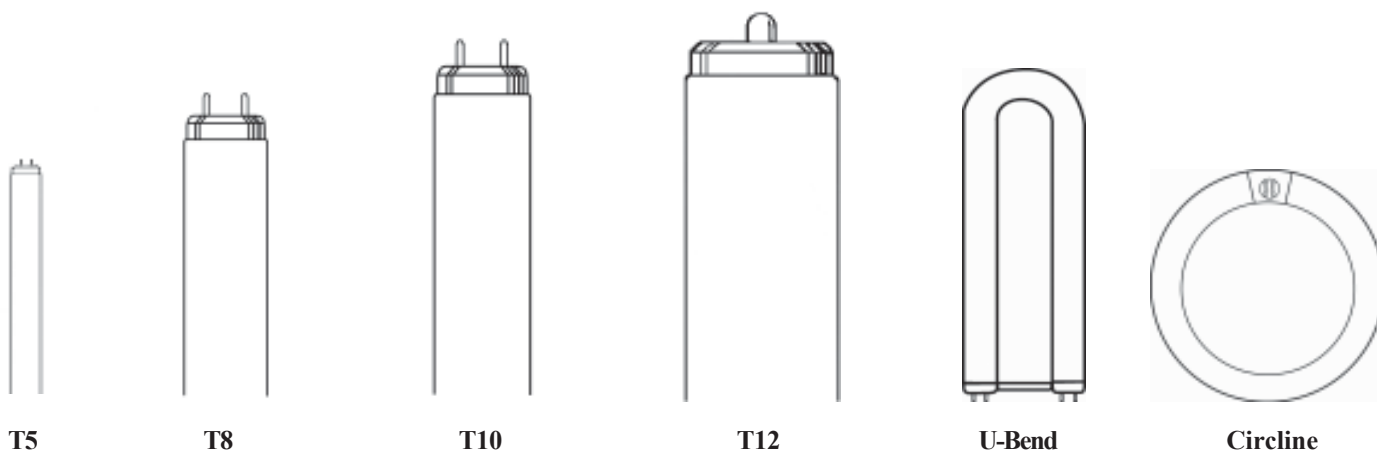
ProLume Eco-Shield T8



ProLume Circline U-Bend

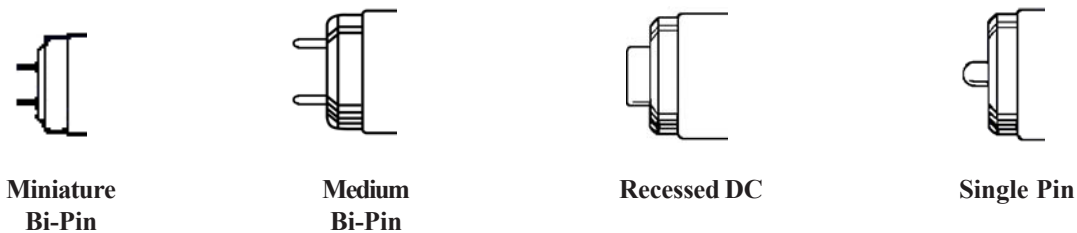
## FLUORESCENT BULB SHAPES

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## BASE TYPES

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**Cross Reference Guide**

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
F20T12/735	F20T12/SP35	F20T12/SPEC35	F20T12/D35
F20T12/ULTRA50	-	-	-
F25T12CW/28	F25T12/CW/28	F25T12/CW/28	F25T12/CW/28
F25T12CW/33	F25T12/CW/33	-	F25T12/CW/33
F30T12CW/30	F30"T12/CW	F25T12/CW/30	F25T12/CW/30
<b>Ultra Efficient T-5</b>			
F14T5/835	F14W/T5/835	F14T5/835	FP14/835
F14T5/841	F14W/T5/841	F14T5/841	FP14/841
F21T5/830	F21W/T5/830	F21T5/830	FP21/830
F21T5/835	F21W/T5/835	F21T5/835	FP21/835
F21T5/841	F21W/T5/841	F21T5/841	FP21/841
F28T5/830	F28W/T5/830	F28T5/830	FP28/830
F28T5/835	F28W/T5/835	F28T5/835	FP28/835
F28T5/841	F28W/T5/841	F28T5/841	FP28/841
F35T5/835	F35W/T5/835	F35T5/835	FP35/835
F35T5/841	F35W/T5/841	F35T5/841	FP35/841
<b>Ultra Efficient T-5 High Output</b>			
F24T5/835/HO	F24W/T5/835	F24T5/835/HO	FP24/835/HO
F24T5/841/HO	F24W/T5/841	F24T5/841/HO	FP24/841/HO
F39T5/830/HO	F39W/T5/830	F39T5/830/HO	FP39/830/HO
F39T5/835/HO	F39W/T5/835	F39T5/835/HO	FP39/835/HO
F39T5/841/HO	F39W/T5/841	F39T5/841/HO	FP39/841/HO
F54T5/830/HO	F54W/T5/830	F54T5/830/HO/ALTO	FP54/830/HO
F54T5/835/HO	F54W/T5/835	F54T5/835/HO/ALTO	FP54/835/HO
F54T5/841/HO	F54W/T5/841	F54T5/841/HO/ALTO	FP54/841/HO
F54T5/850/HO	-	F54T5/850/HO/ALTO	-
<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	F17T8/830/ALTO	FO17/830/ECO
F17T8/835/ECO	F17T8/SPX35/ECO	F17T8/835/ALTO	FO17/835/ECO
F17T8/841/ECO	F17T8/SPX41/ECO	F17T8/841/ALTO	FO17/841/ECO
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	F25T8/830/ALTO	FO25/830/ECO
F25T8/835/ECO	F25T8/SPX35/ECO	F25T8/835/ALTO	FO25/835/ECO
F25T8/841/ECO	F25T8/SPX41/ECO	F25T8/841/ALTO	FO25/841/ECO
F32T8/730/ECO	F32T8/SP30/ECO	F32T8/TL730/ALTO	FO32/730/ECO

### Cross Reference Guide

HALCO	GE.	PHILIPS	OSRAM/SYLVANIA
<b>T-8 Rapid Start (cont'd)</b>			
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	F32T8/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
F32T8/835/ECO	F32T8/SPX35/ECO	F32T8/TL835/ALTO	FO32/835/ECO
F32T8/841/ECO	F32T8/SPX41/ECO	F32T8/TL841/ALTO	FO32/841/ECO
F32T8/850/ECO	F32T8/SPX50/ECO	F32T8/TL850/ALTO	FO32/850/ECO
F32T8/865/ECO	-	-	-
F32T8/ULTRA50	F32T8/SPX50/ECO	F32T8/TL850/ALTO	FO32/850/ECO
F32T8/950	-	-	-
F40T8/735/M	F40T8/SP35	F40T8/TL735/ALTO	FO40/735/ECO
F40T8/741/M	F40T8/SP41	F40T8/TL741/ALTO	FO40/741/ECO
<b>T-10 Rapid Start</b>			
F40T10/ULTRA50	-	-	-
F40T10/955	-	-	-
<b>T-12 Rapid Start</b>			
F34CWES/ECO	F34CW/RS/WM/ECO	F34CW/RS/EW/ALTO	F34CW/SS/ECO
F34/735/ES/M	F34SP35/RS/WM	F34/SPEC35/RS/EW/ALTO	F34/D35/SS/ECO
F40CWX	-	F40/CWX/RS/EW	F40CWX
F40DX	F40/DX	F40/DX/ALTO	F40/DX
F40T12/ULTRA50	F40/SPX50	F40/50U/ALTO	-
F40/350BL	F40BL	F40/350BLACKLIGHT	F40/350BL
F40/730	F40/SP30	F40/SPEC30/ALTO	F40/D30/ECO
F40/735	F40/SP35	F40/SPEC35/ALTO	F40/D35/ECO
F40/741	F40/SP41	F40/SPEC41/ALTO	F40/D41/ECO
F40/950	F40/C50	F40/C50	F40DSGN50
F40/975/M	F40/C75	F40/C75	-
F40BLB	F40/BLB	-	F40/BLB/RP
<b>Instant Start - Slimline</b>			
F96CWES/ECO	F96T12/CW/WM/ECO	F96T12/CW/EW/ALTO	F96T12/CW/SS/ECO
F96DX/ECO	F96T12/DX	F96T12/DX/ALTO	F96T12/DX
F96T50	F96T12/SPX50	F96T12/50U/ALTO	F96T12/DSGN50
F96/735/M	F96T12/SP35	F96T12/SPEC35/EW/ALTO	F96T12/D35
F96/741/M	F96T12/SP41	F96T12/SPEC41/EW/ALTO	F96T12/D41
<b>Rapid Start High Output &amp; Very High Output</b>			
F48CWWHO/M	F48T12CW/1500	F48T12CW/VHO	F48T12/CW/VHO
F72CWWHO/M	F72T12/CW/1500	F72T12/CW/VHO	F72T12/CW/VHO
F96CWHOO/ECO	-	F96T12/CW/HO-O	F96T12/CW/HO/CT/ECO
F96CWHOES/ECO	F96T12/CW/HO/WM/ECO	F96T12/CW/HO/EW/ALTO	F96T12/CW/HO/SS/ECO
F96CWWHO/M	F96T12/CW/1500	F96T12/CW/VHO	F96T12/CW/VHO
F96DXHO/SG	F96T12/DX/HO	F96T12/DX/HO	F96T12/D865/HO
<b>U-Bend Fluorescents</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

## Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA
<b>U-Bend Fluorescents</b>			
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/M	F31/SPX30/U	-	FBO31/830/ECO
FB31/835/M	F31/SPX/35/U	-	FBO31/835/ECO
FB31/841/M	F31/SPX/41/U	-	FBO31/841/ECO
FB34CWU6/ES	F35CW/U/6/WM	FB34/CW/6/EW/ALTO	FB34/CW/6/SS
FB34WWU6/ES	F35WW/U/6/WM	FB34WW/6/EW/ALTO	FB34/WW/6/SS
FB34CWU3ES/M	F35CW/U/3/WM	FB34CW/3/EW	-
FB40/735/6/M	F40SP35/U/6	FB40/SPEC35/6/ALTO	FB40/D35/6
FB40/741/6/M	F40SP41/U/6	FB40/SPEC41/6/ALTO	FB40/D41/6
<b>Cross Reference Guide</b>			
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	850	D850

## Linear



Miniature Bi-Pin



Medium Bi-Pin

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### ProLume® Preheat Lamps - Miniature Bi-Pin

T5	4	9213	2,7	F4T5CW	Cool White	10/1000	4200	65	100	6,000	6"
	6	9200	2,7	F6T5CW	Cool White	10/500	4200	65	200	6,000	9"
	8	9201	2,7	F8T5CW	Cool White	10/500	4200	65	280	6,000	12"
	8	109215	2,7	F8T5DL	Daylight	10/500	6500	75	330	6,000	12"
	8	109210	2,7	F8T5WW	Warm White	10/500	3000	53	400	6,000	12"
	8	9206	2,7	F8T5BLB	Blacklight Blue	10/500	-	-	-	6,000	12"
	13	9231	2,7	F13T5CW	Cool White	10/200	4200	65	620	6,000	21"
	13	9232	2,7	F13T5WW	Warm White	10/200	3000	53	870	6,000	21"

### ProLume® Preheat Lamps - Medium Bi-Pin

T8	14	109370	†,2	F14T8CW	Cool White	25	4200	62	650	8,000	15"
	15	9202	2	F15T8CW	Cool White	30	4200	62	770	7,500	18"
	15	835884	2	F15T8BL/M	Blacklight Major	6	-	-	-	7,500	18"
	15	109212	2	F15T8DL	Daylight	30	6500	74	750	6,000	18"
	15	109208	2	F15T8WW	Warm White	30	3000	53	845	6,000	18"
	30	9225	2	F30T8CW	Cool White	30	4200	62	2100	9,000	36"
T12	14	9228	1	F14T12CW	Cool White	30	4200	62	480	9,000	15"
	15	9212	1	F15T12CW	Cool White	30	4200	62	600	9,000	18"
	15	109214	1	F15T12WW	Warm White	30	3000	53	780	9,000	18"
	20	9203	1	F20T12CW	Cool White	30	4200	62	1200	9,000	24"
	20	9235	1	F20T12DL	Daylight	30	6500	74	1050	9,000	24"
	20	9227	1	F20T12WW	Warm White	30	3000	52	1300	9,000	24"
	20	109612	†,1	F20T12/ULTRA50	850 Phosphor Ultra50	30	5000	86	1300	10,000	24"

### ProLume® T-5 Programmed Start - Miniature Bi-Pin

T5	14	105440	\$.2,7	F14T5/835	835 Phosphor	25	3500	85	1350	20,000	22"
	14	105420	\$.2,7	F14T5/841	841 Phosphor	25	4100	85	1350	20,000	22"
	21	105400	\$.2,7	F21T5/830	830 Phosphor	25	3000	85	2100	20,000	34"
	21	105460	\$.2,7	F21T5/835	835 Phosphor	25	3500	85	2100	20,000	34"
	21	105480	\$.2,7	F21T5/841	841 Phosphor	25	4100	85	2100	20,000	34"
	24	105580	\$.2,7	F24T5/835/HO	835 Phosphor HO	25	3500	85	2000	20,000	21.6"
	24	105600	\$.2,7	F24T5/841/HO	841 Phosphor HO	25	4100	85	2000	20,000	21.6"
	28	105402	\$.Ⓜ,2,7	F28T5/830	830 Phosphor	25	3000	85	2900	20,000	46"
	28	105500	\$.Ⓜ,2,7	F28T5/835	835 Phosphor	25	3500	85	2900	20,000	46"
	28	105520	\$.Ⓜ,2,7	F28T5/841	841 Phosphor	25	4100	85	2900	20,000	46"
	35	105540	\$.2,7	F35T5/835	835 Phosphor	25	3500	85	3650	20,000	58"
	35	105560	\$.2,7	F35T5/841	841 Phosphor	25	4100	85	3650	20,000	58"
	39	105404	\$.2,7	F39T5/830/HO	830 Phosphor HO	25	3000	85	3500	20,000	33.4"

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

Ⓜ Means this lamp meets Federal Minimum Efficiency standards.

Fluorescent Tube symbols, footnotes, and abbreviations located on page 65.



Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
<b>ProLume® T-5 Programmed Start - Miniature Bi-Pin (cont'd)</b>											
T5	39	105620	\$,2,7	F39T5/835/HO	835 Phosphor HO	25	3500	85	3500	20,000	33.4"
	39	105640	\$,2,7	F39T5/841/HO	841 Phosphor HO	25	4100	85	3500	20,000	33.4"
	54	105406	Ⓜ,Ⓢ,Ⓣ,2,7	F54T5/830/HO	830 Phosphor HO	25	3000	85	5000	20,000	45.2"
	54	105660	Ⓜ,Ⓢ,Ⓣ,2,7	F54T5/835/HO	835 Phosphor HO	25	3500	85	5000	20,000	45.2"
	54	105680	Ⓜ,Ⓢ,Ⓣ,2,7	F54T5/841/HO	841 Phosphor HO	25	4100	85	5000	20,000	45.2"
	54	105700	Ⓜ,Ⓢ,Ⓣ,2,7	F54T5/850/HO	850 Phosphor HO	25	5000	85	5000	20,000	45.2"

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
<b>ProLume® T-8 Rapid Start Lamps - Medium Bi-Pin</b>											
T8	17	109320	Ⓢ,Ⓢ,Ⓣ,2	F17T8/730/ECO	730 Phosphor Eco-Shield™	25	3000	75	1325	20,000	24"
	17	109322	Ⓢ,Ⓢ,Ⓣ,2	F17T8/735/ECO	735 Phosphor Eco-Shield™	25	3500	75	1325	20,000	24"
	17	109324	Ⓢ,Ⓢ,Ⓣ,2	F17T8/741/ECO	741 Phosphor Eco-Shield™	25	4100	75	1325	20,000	24"
	17	109326	Ⓢ,Ⓢ,Ⓣ,2	F17T8/750/ECO	750 Phosphor Eco-Shield™	25	5000	75	1325	20,000	24"
	17	109800	Ⓢ,Ⓢ,Ⓣ,2	F17T8/830/ECO	830 Phosphor Eco-Shield™	25	3000	85	1400	20,000	24"
	17	109802	Ⓢ,Ⓢ,Ⓣ,2	F17T8/835/ECO	835 Phosphor Eco-Shield™	25	3500	85	1400	20,000	24"
	17	109804	Ⓢ,Ⓢ,Ⓣ,2	F17T8/841/ECO	841 Phosphor Eco-Shield™	25	4100	85	1400	20,000	24"
	25	109340	Ⓢ,Ⓢ,Ⓣ,2	F25T8/730/ECO	730 Phosphor Eco-Shield™	25	3000	75	2125	20,000	36"
	25	109342	Ⓢ,Ⓢ,Ⓣ,2	F25T8/735/ECO	735 Phosphor Eco-Shield™	25	3500	75	2125	20,000	36"
	25	109344	Ⓢ,Ⓢ,Ⓣ,2	F25T8/741/ECO	741 Phosphor Eco-Shield™	25	4100	75	2125	20,000	36"
	25	109346	Ⓢ,Ⓢ,Ⓣ,2	F25T8/750/ECO	750 Phosphor Eco-Shield™	25	5000	75	2125	20,000	36"
	25	109806	Ⓢ,Ⓢ,Ⓣ,2	F25T8/830/ECO	830 Phosphor Eco-Shield™	25	3000	85	2250	20,000	36"
	25	109808	Ⓢ,Ⓢ,Ⓣ,2	F25T8/835/ECO	835 Phosphor Eco-Shield™	25	3500	85	2250	20,000	36"
	25	109810	Ⓢ,Ⓢ,Ⓣ,2	F25T8/841/ECO	841 Phosphor Eco-Shield™	25	4100	85	2250	20,000	36"
	32	109412	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/730/ECO	730 Phosphor Eco-Shield™	25	3000	75	2850	20,000	48"
	32	109414	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/735/ECO	735 Phosphor Eco-Shield™	25	3500	75	2850	20,000	48"
	32	109416	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/741/ECO	741 Phosphor Eco-Shield™	25	4100	75	2850	20,000	48"
	32	109418	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/750/ECO	750 Phosphor Eco-Shield™	25	5000	75	2850	20,000	48"
	32	109424	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/765/ECO	765 Phosphor Eco-Shield™	25	6500	75	2750	20,000	48"
	32	109398	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/830/ECO	830 Phosphor Eco-Shield™	25	3000	85	3050	20,000	48"
	32	109400	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/835/ECO	835 Phosphor Eco-Shield™	25	3500	85	3050	20,000	48"
	32	109402	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/841/ECO	841 Phosphor Eco-Shield™	25	4100	85	3050	20,000	48"
	32	109404	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/850/ECO	850 Phosphor Eco-Shield™	25	5000	85	3050	20,000	48"
	32	109428	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/865/ECO	865 Phosphor Eco-Shield™	25	6500	85	3050	20,000	48"
	32	109610	†,Ⓢ,Ⓢ,Ⓢ,2	F32T8/ULTRA50	850 Phosphor Ultra50™	30	5000	86	2950	20,000	48"
	32	109360	Ⓢ,Ⓢ,Ⓣ,Ⓢ,2	F32T8/ULTRA950	950 Phosphor Ultra950™	25	5000	98	2000	20,000	48"
	40	815951	Ⓢ,2	F40T8/735/M	735 Phosphor Major	25	3500	75	3600	20,000	60"
	40	815952	Ⓢ,2	F40T8/741/M	741 Phosphor Major	30	4100	75	3600	20,000	60"
	59	823411	Ⓢ,Ⓢ,2	F96T8/735/M	735 Phosphor Major	24	3500	78	5800	15,000	96"

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

Ⓢ Means this lamp meets Federal Minimum Efficiency standards.

## Linear



Single Pin



Medium Bi-Pin

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### ProLume® T-8 Rapid Start Lamps - Medium Bi-Pin (cont'd)

T8	59	823412	\$,ⓔ,2	F96T8/741/M	741 Phosphor Major	24	4100	78	5800	15,000	96"
	59	205773	\$,ⓔ,2	F96T8/850/M	850 Phosphor Major	24	5000	86	5950	15,000	96"

### ProLume® T-10 Rapid Start Lamps - Medium Bi-Pin

T10	40	109600	ⓔ,2	F40T10/ULTRA50	850 Phosphor Ultra50™	30	5000	86	3600	20,000	48"
	40	109602	h,ⓔ,2	F40T10/955	955 Phosphor	25	5550	92	3600	20,000	48"

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

T12	30	9204	1	F30T12CW	Cool White ProLume®	30	4200	62	1900	18,000	36"
	30	9236	1	F30T12DL	Daylight ProLume®	30	6500	74	1750	18,000	36"
	30	313742	1	F30T12WW	Warm White Major	30	3000	53	2300	18,000	36"
	34	40212	Ⓢ,Ⓢ,1	F34CWES/ECO	CW ProLume® Eco-Shield™	30	4150	62	2650	20,000	48"
	34	256867	Ⓢ,1	F34WWES/M	Warm White ES Low Mercury Major	30	3000	53	2700	20,000	48"
	34	813807	Ⓢ,1	F34/735/ES/M	735 Phosphor ES Major	30	3500	73	2750	20,000	48"
	40	230474	ⓔ,1	F40AB	Arctic Brite Deluxe	30	5100	82	2400	20,000	48"
	40	109490	1	F40BLB	Blacklight Blue ProLume®	6	-	-	-	20,000	48"
	40	109480	†,1	F40/350BL	Blacklight ProLume®	6	-	-	-	20,000	48"
	40	109430	1	F40CWX	CW Deluxe ProLume®	30	4100	90	2200	20,000	48"
	40	109420	1	F40DX	Daylight Deluxe ProLume®	30	6500	85	2650	20,000	48"
	40	313130	ⓔ,1	F40NL	Natural Light	30	5600	91	2150	20,000	48"
	40	346817	ⓔ,1	F40SL	Spectralite Full Spectrum	30	5900	90	2430	20,000	48"
	40	15075	ⓔ,1	F40/730	730 Low Mercury Major	30	3000	70	3200	20,000	48"
	40	109442	†,ⓔ,1	F40/735	735 Phosphor ProLume®	30	3500	75	3050	20,000	48"
	40	109444	†,ⓔ,1	F40/741	741 Phosphor ProLume®	30	4100	75	3050	20,000	48"
	40	109440	†,ⓔ,1	F40/950	950 Phosphor ProLume®	30	5200	92	2200	20,000	48"
	40	813795	ⓔ,1	F40/975/M	975 Phosphor Major	30	7500	92	1950	20,000	48"
	40	109614	†,ⓔ,1	F40/ULTRA50	850 Phosphor ProLume® Ultra50™	30	5000	86	3450	20,000	48"

### Slimline Instant Start Lamps - Single Pin

T6	25	824266	1	F42T6CW/M	Cool White Major	24	4200	62	1750	7,500	42"
	40	826466	1	F64T6CW/M	Cool White Major	24	4200	62	2800	7,500	64"
T12	39	363218	1	F48CW/M	Cool White Low Mercury Major	15	4100	62	2950	9,000	48"
	39	387019	1	F48DL/M	Daylight Low Mercury Major	30	6500	79	2500	9,000	48"
	50	260012	1	F60CW/M	Cool White Major	30	4200	62	3600	12,000	60"
	50	823076	1	F60DL/M	Daylight Major	15	6500	75	3000	12,000	60"

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Fluorescent Tube symbols, footnotes, and abbreviations located on page 65.





Single Pin



Recessed D.C.

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### Slimline Instant Start Lamps - Single Pin (cont'd)

T12	50	355768	1	<b>F64CW/M</b>	Cool White Major	30	4200	62	3900	12,000	64"
	50	355776	1	<b>F64DL/M</b>	Daylight Major	30	6500	76	3300	12,000	64"
	56	369892	1	<b>F72CW/M</b>	Cool White Low Mercury Major	15	4100	62	4450	12,000	72"
	56	369850	1	<b>F72DL/M</b>	Daylight Major	15	6500	79	3800	12,000	72"
	70	813764	1	<b>F84CW/M</b>	Cool White Major	15	4200	62	5300	12,000	84"
	75	231548	Ⓔ,1	<b>F96AB</b>	Artic Brite	15	5100	82	4775	12,000	96"
	60	402440	\$,Ⓔ,1	<b>F96CWES/ECO</b>	Cool White ProLume® Eco-Shield™	15	4150	62	5400	12,000	96"
	75	840117	1	<b>F96CW/SGD</b>	Cool White Shatter Guard	15	4100	60	5960	12,000	96"
	75	109422	Ⓔ,1	<b>F96DX/ECO</b>	Daylight Deluxe ProLume® Eco-Shield™	15	6500	84	4500	26,000	96"
	75	214932	Ⓔ,1	<b>F96NL</b>	Natural Light	15	5600	91	4360	12,000	96"
	75	350157	Ⓔ,1	<b>F96SL</b>	Spectralite Full Spectrum	15	5900	90	4340	12,000	96"
	75	814067	Ⓔ,1	<b>F96/735/M</b>	735 Phosphor Major	15	3500	73	6110	12,000	96"
	75	815358	Ⓔ,1	<b>F96/741/M</b>	741 Phosphor Major	15	4100	72	6110	12,000	96"
	75	298018	Ⓔ,1	<b>F96/850</b>	Triten 50	15	5000	85	6500	12,000	96"
	75	813752	Ⓔ,1	<b>F96/950/M</b>	950 Phosphor Major	15	5000	90	4600	12,000	96"

### High Output Lamps (800MA) - Recessed DC Base

T8	86	812537	\$,Ⓔ,2,4,5	<b>F96T8/735HO/M</b>	735 Phosphor HO Major	24	3500	78	8000	18,000	96"
	86	812538	\$,Ⓔ,2,4,5	<b>F96T8/741HO/M</b>	741 Phosphor HO Major	24	4100	78	8000	18,000	96"
T12	35	262790	1,4,5	<b>F24T12CWHO/M</b>	Cool White HO Major	30	4100	62	1650	9,000	24"
	35	262741	1,4,5	<b>F24T12DLHO/M</b>	Daylight HO Major	30	6500	79	1400	9,000	24"
	40	226464	1,4,5	<b>F30T12CWHO/M</b>	Cool White HO Major	30	4100	62	2290	9,000	30"
	40	343343	1,4,5	<b>F30T12DLHO/M</b>	Daylight HO Major	24	6500	79	1920	9,000	30"
	50	262865	1,4,5	<b>F36T12CWHO/M</b>	Cool White HO Major	30	4100	62	2800	9,000	36"
	50	262907	1,4,5	<b>F36T12DLHO/M</b>	Daylight HO Major	30	6500	79	2500	9,000	36"
	55	810559	1,4,5	<b>F42CWHO/M</b>	Cool White HO Major	30	4100	62	3400	9,000	42"
	55	810560	1,4,5	<b>F42DLHO/M</b>	Daylight HO Major	30	6500	79	3000	9,000	42"
	60	369785	1,4,5	<b>F48CWHO/M</b>	Cool White HO Low Mercury Major	15	4100	62	4050	12,000	48"
	60	369843	1,4,5	<b>F48DLHO/M</b>	Daylight HO Low Mercury Major	15	6500	79	3400	12,000	48"
	75	251260	1,4,5	<b>F60CWHO/M</b>	Cool White HO Major	30	4200	62	5200	12,000	60"
	75	825120	1,4,5	<b>F60DLHO/M</b>	Daylight HO Major	30	6500	76	4600	12,000	60"
	80	823083	1,4,5	<b>F64CWHO/M</b>	Cool White HO Major	15	4100	60	5600	12,000	64"
	80	823087	1,4,5	<b>F64DLHO/M</b>	Daylight HO Major	15	6500	75	4750	12,000	64"
	85	366518	1,4,5	<b>F72CWHO/M</b>	Cool White HO Low Mercury Major	15	4100	62	6350	12,000	72"

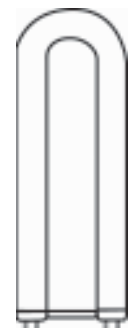
To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

Ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Fluorescent Tube symbols, footnotes, and abbreviations located on page 65.



Recessed D.C.



T-8/T-12  
U-Bend

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### High Output Lamps (800MA) - Recessed DC Base (cont'd)

T12	85	366534	1,4,5	F72DLHO/M	Daylight HO Low Mercury Major	15	6500	79	5600	12,000	72"
	100	813766	1,4,5	F84CWHO/M	Cool White HO Major	15	4100	62	7800	12,000	84"
	100	813767	1,4,5	F84DLHO/M	Daylight HO Major	15	6500	76	6700	12,000	84"
	110	392639	1,4,5	F96ABHO	Arctic Brite HO Low Mercury	15	5100	82	6885	12,000	96"
	110	402600	1,4,5,6	F96CWHOO/ECO	Cool White HO Low Mercury ProLume® Eco-Shield™	15	4150	62	8800	12,000	96"
	95	402640	Ⓢ,1,4,5	F96CWHOES/ECO	Cool White HO ES ProLume® Eco-Shield™	15	4150	62	8000	12,000	96"
	110	381774	1,4,5,6	F96DLHOO/A	Daylight HO-O Low Mercury Major	15	6500	79	7800	12,000	96"
	110	274233	Ⓢ,1,4,5	F96T50HO	Triten 50 HO	15	5000	85	9675	12,000	96"

### Very High Output Lamps (1500MA) - Recessed DC Base

T12	110	810751	1,4,5	F48CWVHO/M	Cool White VHO Major	24	4100	60	6200	10,000	48"
	160	813760	1,4,5	F72CWVHO/M	Cool White VHO Major	15	4100	62	7850	10,000	72"
	215	342345	1,4,5	F96CWVHO/M	Cool White VHO Major	15	4200	62	14000	10,000	96"

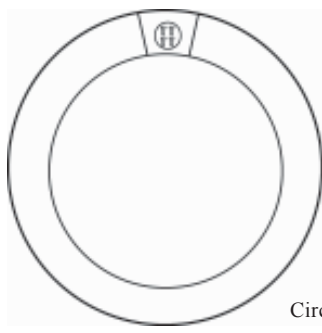
### U-Bend Rapid Start - Medium Bi-Pin Base

T8	31	821877	Ⓢ,\$,2,3	FB31/830/M	830 Phosphor 1-5/8" Major	15	3000	82	2725	20,000	22.5"
	31	821878	Ⓢ,\$,2,3	FB31/835/M	835 Phosphor 1-5/8" Major	15	3500	82	2725	20,000	22.5"
	31	821879	Ⓢ,\$,2,3	FB31/841/M	841 Phosphor 1-5/8" Major	15	4100	82	2725	20,000	22.5"
	32	109500	Ⓢ,Ⓢ,\$,2,3	FB32/730/6/ECO	730 ProLume® Eco-Shield™	20	3000	75	2650	20,000	22.5"
	32	109502	Ⓢ,Ⓢ,\$,2,3	FB32/735/6/ECO	735 ProLume® Eco-Shield™	20	3500	75	2650	20,000	22.5"
	32	109504	Ⓢ,Ⓢ,\$,2,3	FB32/741/6/ECO	741 ProLume® Eco-Shield™	20	4100	75	2650	20,000	22.5"
	32	109506	Ⓢ,Ⓢ,\$,2,3	FB32/750/6/ECO	750 ProLume® Eco-Shield™	20	5000	75	2650	20,000	22.5"
	32	109812	Ⓢ,Ⓢ,\$,2,3	FB32/830/6/ECO	830 ProLume® Eco-Shield™	20	3000	85	2550	20,000	22.5"
	32	109814	Ⓢ,Ⓢ,\$,2,3	FB32/835/6/ECO	835 ProLume® Eco-Shield™	20	3500	85	2800	20,000	22.6"
	32	109816	Ⓢ,Ⓢ,\$,2,3	FB32/841/6/ECO	841 ProLume® Eco-Shield™	20	4100	85	2550	20,000	22.6"
	32	109818	Ⓢ,Ⓢ,\$,2,3	FB32/850/6/ECO	850 ProLume® Eco-Shield™	20	5000	85	2750	20,000	22.6"
T12	34	812199	Ⓢ,1,3	FB34CWU3ES/M	Cool White 3" Major	12	4100	60	2200	14,000	22.5"
	34	378696	Ⓢ,1,3	FB34CWU6/ES	Cool White 6" ProLume®	12	4100	62	2500	14,000	22.5"
	34	378698	Ⓢ,1,3	FB34WWU6/ES	Warm White 6" ProLume®	12	3000	54	2500	14,000	22.5"
	40	230375	Ⓢ,1,3	FB40ABU6	Arctic Brite 6"	12	5100	82	2285	14,000	22.5"
	40	219931	1,3	FB40DX/6/M	Daylight 6" Major	12	6500	84	2250	18,000	22.5"
	40	445940	Ⓢ,1,3	FB40SLU6	Spectralite 6"	12	5900	90	1980	14,000	22.5"
	40	378588	Ⓢ,1,3	FB40/TRI50	850 Phosphor 6" Low Mercury	12	5000	84	3150	14,000	22.5"
	40	814227	Ⓢ,1,3	FB40/735/6/M	735 Phosphor 6" Major	12	3500	73	3050	14,000	22.5"
	40	815265	Ⓢ,1,3	FB40/741/6/M	741 Phosphor 6" Major	12	4100	72	3050	14,000	22.5"

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

Ⓢ Means this lamp meets Federal Minimum Efficiency standards.

Fluorescent Tube symbols, footnotes, and abbreviations located on page 65.



Circline



Medium Bi-Pin

Bulb	Watts	Product Number	Footnotes	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### Circline Rapid Start - 4-Pin

T9	22	109040	1	<b>FC8T9CW</b>	Cool White 8" ProLume®	12	4200	57	1040	10,000	8"
	32	109050	1	<b>FC12T9CW</b>	Cool White 12" ProLume®	12	4200	57	2050	10,000	12"
	40	109060	1	<b>FC16T9CW</b>	Cool White 16" ProLume®	12	4200	62	2750	12,000	16"

### Circline Program Start - T-5

T5	22	109080	†,\$,2,7	<b>FC22T5/835</b>	9" ProLume®	12	3500	80	1400	8,000	9"
	22	109082	†,\$,2,7	<b>FC22T5/841</b>	9" ProLume®	12	4100	80	1400	8,000	9"
	40	109084	†,\$,2,7	<b>FC40T5/835</b>	12" ProLume®	12	3500	80	2800	8,000	12"
	40	109086	†,\$,2,7	<b>FC40T5/841</b>	12" ProLume®	12	4100	80	2800	8,000	12"

### Appliance Lamps - Medium Bi-Pin Base

T8	18	109234	†,2	<b>F18T8CW/K24</b>	Cool White 24" ProLume®	30	4100	62	1175	7,500	24"
	18	810702	2	<b>F18T8CW/K26</b>	Cool White 26" Major	24	4200	62	1280	7,500	26"
	18	817704	2	<b>F18T8CW/K28</b>	Cool White 28" Major	24	4200	62	1360	7,500	28"
	18	810349	2	<b>F18T8CW/K30</b>	Cool White 30" Major	24	4200	62	1400	7,500	30"
T12	25	810280	1	<b>F25T12CW/28</b>	Cool White 28" Major	6	4200	62	1670	7,500	28"
	25	838201	1	<b>F25T12CW/33</b>	Cool White 33" Major	6	4200	62	1850	7,500	33"

### Blacklight & Blacklight Blue Lamps

T4	8	109206	1	<b>F8T5BLB</b>	Blacklight Blue ProLume®	10/500	-	-	-	5,000	12"
T8	15	314369	2	<b>F15T8BL/M</b>	Blacklight Major	6	-	-	-	7,500	18"
T12	40	109490	1	<b>F40BLB</b>	Blacklight Blue ProLume®	6	-	-	-	20,000	48"
	40	109480	†,1	<b>F40/350BL</b>	Blacklight ProLume®	6	-	-	-	20,000	48"

### Germicidal

T5	8	299305	2,7	<b>G8T5</b>	Clear Major	1/25	-	-	-	8,000	12"
T8	15	308643	2	<b>G15T8</b>	Clear Major	1/25	-	-	-	8,000	18"

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

ⓔ Means this lamp meets Federal Minimum Efficiency standards.

Bulb	Watts	Product Number	Product Code	Description	Inner/Master	Color Temp.	CRI	Initial Lumens	Avg. Life	Nom. Length
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### Fluorescent Ballasts

#### Electronic

T8	-	209602	<b>BL232IS/120</b>	F32 2-Lamp 120V	10	-	-	-	-	-
	-	209604	<b>BL232IS/277</b>	F32 2-Lamp 277V	10	-	-	-	-	-
	-	209614	<b>BL232IS/120-277</b>	F32 2-Lamp DualVoltage	10	-	-	-	-	-
	-	209606	<b>BL432IS/120</b>	F32 4-Lamp 120V	10	-	-	-	-	-
	-	209608	<b>BL432IS/277</b>	F32 4-Lamp 277V	10	-	-	-	-	-
	-	209616	<b>BL432IS/120-277</b>	F32 4-Lamp Dual Voltage	10	-	-	-	-	-
	-	209610	<b>BL259IS/120</b>	F96 2-Lamp 120V	10	-	-	-	-	-

#### Electromagnetic

T12	-	209570	<b>BL240/120</b>	F40 2-Lamp 120V	10	-	-	-	-	-
	-	209572	<b>BL240/277</b>	F40 2-Lamp 277V	10	-	-	-	-	-
	-	209576	<b>BL296/120</b>	F96 2-Lamp 120V	6	-	-	-	-	-
	-	209580	<b>BL296HO/120</b>	F96 HO 2-Lamp 120V	4	-	-	-	-	-
	-	209578	<b>BL296/277</b>	F96 2-Lamp 277V	6	-	-	-	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

Ⓜ Means this lamp meets Federal Minimum Efficiency standards.

Linear Symbols, Footnotes, and Abbreviations

SYMBOLS	
h	Exclusive to Halco Lighting.
†	New product introduced within the past year.
\$	Energy saving product.
Ⓔ	This lamp meets Federal Minimum Efficiency standards.
♻️	ProLume® Eco-Shield™ Low-Mercury fluorescent lamps pass the Federal TCLP for hazardous wastes.
FOOTNOTES	
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.
2	Commercial average life under specified test conditions with lamps turned off and restarted every 12 hours. Lamp life is longer if lamps are started less frequently.
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.
4	Initial lumens are based on 800ma. operation. For 1000ma. operation, lumens are approximately 10% higher and watts approximately 15% higher.
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.
6	Meets the National Energy Policy Act (EPACT) of 1992 exemption for outdoor or cold temperature applications only.
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.
ABBREVIATIONS	
/730	Suffix used to indicate lamps with CRI of 70+ and color temperature of 3000°K.
/735	Suffix used to indicate lamps with CRI of 70+ and color temperature of 3500°K.
/741	Suffix used to indicate lamps with CRI of 70+ and color temperature of 4100°K.
/750	Suffix used to indicate lamps with CRI of 70+ and color temperature of 5000°K.
/765	Suffix used to indicate lamps with CRI of 70+ and color temperature of 6500°K.
/830	Suffix used to indicate lamps with CRI of 80+ and color temperature of 3000°K.
/835	Suffix used to indicate lamps with CRI of 80+ and color temperature of 3500°K.
/841	Suffix used to indicate amps with CRI of 80+ and color temperature of 4100°K.
/850	Suffix used to indicate amps with CRI of 80+ and color temperature of 5000°K.
/865	Suffix used to indicate lamps with CRI of 80+ and color temperature of 6500°K.
/950	Suffix used to indicate lamps with CRI of 90+ and color temperature of 5000°K.
/955	Suffix used to indicate lamps with CRI of 90+ and color temperature of 5550°K.
/975	Suffix used to indicate lamps with CRI of 90+ and color temperature of 7500°K.
AB	Code abbreviation for Artic Brite lamps.
BL	Code abbreviation for Blacklight lamps.
BLB	Code abbreviation for Blacklight Blue lamps.
CW	Code abbreviation for Cool White lamps.
CWX	Code abbreviation for ProLume® Cool White Deluxe lamps.
DL	Code abbreviation for Daylight lamps.
DX	Code abbreviation for ProLume® Daylight Deluxe lamps.
/ECO	Suffix used to indicate Eco-Shield™ lamps.
/ES	Suffix used to indicate ProLume® Energy Saving fluorescent lamps.
FB	Code abbreviation for Fluorescent U-Bend lamps.
FC	Code abbreviation for Fluorescent Circline lamps.
HO	Suffix used to indicate High Output lamps.
/HOO	Suffix used to indicate High Output Outside lamps.
IS	Code abbreviation for Instant Start lamps.
M	Suffix used to indicate a Major brand Fluorescent lamps (GE, Philips, Osram/Sylvania).
NL	Code abbreviation for Natural Light lamps.
/SGD	Suffix used to indicate Shatter Guard lamps.
SL	Code abbreviation for Spectralite lamps.
T50	Code abbreviation for Triten50 lamps.
VHO	Suffix used to indicate Very High Output lamps.
WW	Code abbreviation for Warm White lamps.

