

# ULTRAMAX ELECTRONIC BALLASTS



**GE Lighting**

TRANSFORMING  
THE **POWER** OF  
LIGHT™

BREAKTHROUGH TECHNOLOGY  
THAT DRAMATICALLY IMPROVES  
EFFICIENCY, SIMPLIFIES  
INSTALLATION AND DELIVERS  
OPTIMAL LAMP PERFORMANCE.



# ULTRAMAX ELECTRONIC BALLAST

The right ballast. The right performance. The right light.

## GE revolutionizes lighting again with new, breakthrough technology.

In the GE labs, our engineers have developed a new breed of ballasts to make lighting systems that save more energy, are more adaptable, and deliver optimal lamp performance. The innovative, patented

There's more to

**U L T R A**

**M A X**

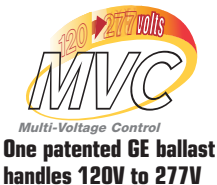
Multi-Voltage Control    Arc-Guard Protection    Xtreme Efficiency

technology in our new UltraMax electronic ballasts exceeds expectations, and is like nothing else available.

### Multi-Voltage technology means a single UltraMax model handles voltage from 120 through 277.

UltraMax Ballasts can virtually "read" the incoming voltage and adapt automatically to any voltage from 108V to 305V. The benefits of Multi-Voltage Control (MVC) are obvious:

- Fewer models handle more jobs, eliminating inventory hassles.
- MVC simplifies installation and eliminates guesswork at the job site.
- MVC compensates for incoming voltage fluctuations or variations from unreliable power.



### UltraMax is the only full line of T8 ballasts with a UL Type CC Anti-Arc Rating.

UL Type CC Rating is a stringent designation of protection against arcing in electrical devices. GE's Arc-Guard design eliminates the damaging effects arcing can have on lamps, ballasts and sockets.

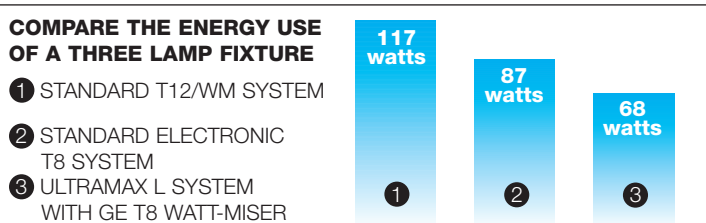


### High efficiency delivers up to 40% energy savings.

Ballasts are the new frontier of energy efficiency. Systems combining UltraMax electronic ballasts and T8/WM lamps can deliver up to 40% energy savings over standard electromagnetically ballasted T12 systems. Since energy costs are typically 80% of the overall cost of light, a more efficient system can pay for itself in a very short time and provide an excellent return on investment.

### UltraMax is ultra lamp friendly.

With an industry low lamp current crest factor (LCCF) of 1.4, UltraMax ensures optimal lamp operation and maximum lamp life, which can save on lamp and maintenance costs.



transforming the power of light™



**Active Current Regulation (ACR) technology is a patented advantage.**

UltraMax's patented ACR modular design means individual inverter modules regulate the output current to each lamp. So, unlike conventional ballasts, if one lamp fails, the remaining lamps are not forced to operate at a higher current. This ensures optimal lamp performance.

**Anti-Striation Control for better light quality, with no striations.**

UltraMax is the only line of T8 ballasts with Anti-Striation Control. This advanced technology eliminates the maintenance issues caused by striating lamps, often referred to as spiraling or swirling. This provides a flicker- and worry-free environment.

**Fully parallel independent lamp operation makes system easier to maintain.**

If one lamp fails, all the others in the system stay lit. That means system maintenance is easier to manage.

**UltraMax is ultra-cool.**

UltraMax's high efficiency design results in ultra-cool operation that can provide additional AC energy savings, especially during peak demand periods.

**A big idea in a small package.**

The UltraMax housing is smaller, lower-profile and lightweight. That can be a big help in retrofits. It also means future fixture designs can be more compact and streamlined.

**Every unit is tested and proven before it's shipped.**

GE does 100% burn-in on every UltraMax ballast using our extreme open/short test, which simulates undesirable and harsh-use situations, so you are assured of a system you can rely on right out of the box.

**GE Six Sigma quality backed by a full 5-year warranty.**

UltraMax is designed by GE's expert engineers and custom-manufactured to our exacting Six Sigma specifications, all backed by a full 5-year warranty. And, when used with GE T8 lamps you get our Total Performance System™ warranty, covering both lamps and ballasts, so you know you are making the right choice.



*For more information, visit [www.gelighting.com](http://www.gelighting.com).*

# A FULL FAMILY OF HIGH EFFICIENCY MULTI-VOLTAGE BALLASTS FOR ALL T8 APPLICATIONS.



**The Low watt option for Max energy savings.** With a ballast factor of .77, the L line is the most energy efficient choice. It provides adequate illumination for most applications. For 1, 2, 3, and 4 T8 lamps in 2', 3', and 4' lengths.



**The Normal light option balances efficiency and illumination.** The most-used type of ballast, the N line saves energy without sacrificing lumens. A ballast factor of .87 meets most application needs. For 1, 2, 3, and 4 T8 lamps in 2', 3', 4', and 8' lengths.



**The choice for High light output.** With a ballast factor of 1.15, UltraMax H delivers the most lumens for maximum light or when you want more savings using fewer lamps. This is the first high-efficiency high-light output line for 2, 3 and 4 T8 lamps.



13 UltraMax L, N and H models can replace more than 40 conventional electronic ballasts.

ACTUAL SIZE



See for yourself how different UltraMax ballasts perform.

	BALLAST FACTOR	*SYSTEM LUMENS (2850 Lumens/Lamp)	*INPUT WATTS	LUMENS PER WATT
L	.77	4389	48	91
N	.87	4959	53	94
H	1.15	6555	73	90

\* For a 2-Lamp F32T8 System at 277V

### Safety

- No PCBs
- UL Listed
  - Class P, Type 1
  - Type CC
  - Type HL (Hazardous Location)

### Application Information

- Minimum Starting Temperature: 0°F, 18°C
- Maximum Ambient Temperature: 105°F, 40°C
- Sound Rated A
- Remote Mounting: 18' maximum lead length, 18 AWG
- High Frequency Lamp Operation: Above 60 kHz

### Physical Parameters

(Except for the 4H model)  
 Length: 9.50 in.  
 Width: 1.70 in.  
 Height: 1.2 in.  
 Weight: 1.4 lbs.

### Applications:

Offices	Plants
Retail	Hotels
Schools	Warehouses
Universities	Hospitals

*transforming the power of light™*

# System Performance Comparison Matrix

Compare the overall performance of a GE UltraMax system to conventional lamp and ballast systems.

Lamps	Electromagnetic Ballasts				Electronic Ballasts		
<b>2-Lamp System Performance 4' Fluorescent</b>							
	Electromagnetic E.S.	Rapid Start	Low Power (L)	Normal	UltraMax L	UltraMax N	UltraMax H
Watt-Miser T12 (CW)	Watts: 74 BF: 0.90 Light: 100% RLPW: 100%	Watts: 64 BF: 0.86 Light: 96% RLPW: 110%	Not Available	Not Available	Not Available	Not Available	Not Available
F32T8 & F32T8/XL (SP)	Watts: 69 BF: 0.88 Light: 116% RLPW: 125%	Watts: 63 BF: 0.88 Light: 116% RLPW: 137%	Watts: 51 BF: 0.78 Light: 103% RLPW: 149%	Watts: 58 BF: 0.88 Light: 116% RLPW: 148%	Watts: 48 BF: 0.77 Light: 102% RLPW: 157%	Watts: 53 BF: 0.87 Light: 115% RLPW: 160%	Watts: 73 BF: 1.15 Light: 152% RLPW: 154%
F32T8/WM ULTRA & XL (SP)	Not Recommended	Not Recommended	Watts: 48 BF: 0.78 Light: 102% RLPW: 157%	Watts: 54 BF: 0.88 Light: 115% RLPW: 157%	Watts: 46 BF: 0.77 Light: 100% RLPW: 161%	Watts: 52 BF: 0.87 Light: 113% RLPW: 161%	Watts: 70 BF: 1.15 Light: 150% RLPW: 158%

## 3-Lamp System Performance 4' Fluorescent

	Electromagnetic E.S.	Rapid Start	Low Power (L)	Normal	UltraMax L	UltraMax N	UltraMax H
Watt-Miser T12 (CW)	Watts: 117 BF: 0.91 Light: 100% RLPW: 100%	Watts: 93 BF: 0.86 Light: 95% RLPW: 119%	Not Available	Not Available	Not Available	Not Available	Not Available
F32T8 & F32T8/XL (SP)	Watts: 105 BF: 0.88 Light: 115% RLPW: 128%	Watts: 93 BF: 0.88 Light: 115% RLPW: 145%	Watts: 77 BF: 0.78 Light: 102% RLPW: 155%	Watts: 87 BF: 0.88 Light: 115% RLPW: 155%	Watts: 72 BF: 0.77 Light: 101% RLPW: 163%	Watts: 80 BF: 0.87 Light: 114% RLPW: 166%	Watts: 109 BF: 1.15 Light: 150% RLPW: 161%
F32T8/WM ULTRA & XL (SP)	Not Recommended	Not Recommended	Watts: 72 BF: 0.78 Light: 101% RLPW: 163%	Watts: 81 BF: 0.88 Light: 113% RLPW: 164%	Watts: 68 BF: 0.77 Light: 99% RLPW: 171%	Watts: 77 BF: 0.87 Light: 112% RLPW: 170%	Watts: 104 BF: 1.15 Light: 148% RLPW: 167%

## 4-Lamp System Performance 4' Fluorescent

	Electromagnetic E.S.	Rapid Start	Low Power (L)	Normal	UltraMax L	UltraMax N	UltraMax H
Watt-Miser T12 (CW)	Watts: 148 BF: 0.90 Light: 100% RLPW: 100%	Watts: 128 BF: 0.86 Light: 96% RLPW: 110%	Not Available	Not Available	Not Available	Not Available	Not Available
F32T8 & F32T8/XL (SP)	Watts: 138 BF: 0.88 Light: 116% RLPW: 125%	Watts: 120 BF: 0.88 Light: 116% RLPW: 143%	Watts: 100 BF: 0.78 Light: 103% RLPW: 152%	Watts: 114 BF: 0.88 Light: 116% RLPW: 151%	Watts: 96 BF: 0.77 Light: 102% RLPW: 158%	Watts: 107 BF: 0.87 Light: 115% RLPW: 159%	TBD
F32T8/WM ULTRA & XL (SP)	Not Recommended	Not Recommended	Watts: 95 BF: 0.78 Light: 102% RLPW: 158%	Watts: 107 BF: 0.88 Light: 115% RLPW: 159%	Watts: 91 BF: 0.77 Light: 100% RLPW: 163%	Watts: 103 BF: 0.87 Light: 113% RLPW: 163%	TBD

**Notes:**

Light refers to "mean" lumen output relative to highlighted T12 Electromagnetic E.S. (energy saving) ballast systems.

RLPW is mean system Lumens/Watt relative to highlighted T12 Electromagnetic E.S. (energy saving) ballast systems.

Watts shown at 277 volts.

# Ordering Guide and System Wattage

There's a combination of GE UltraMax ballasts and T8 lamps that can make virtually any lighting system perform better. The chart below lets you see for yourself.

Starting Power	Power # Lamps	GE UltraMax Ballasts			F32T8 Input Watts			F32T8/WM Input Watts			Units Per Case		
		Product Code	Description	Input Voltage	Input Watts <sup>†</sup>	In Fixture <sup>Δ</sup>		Input Watts <sup>†</sup>	In Fixture <sup>Δ</sup>				
						Open	Enclosed		Open	Enclosed			
Instant Start	Low	1	49706	GE-132-MAX-L/Ultra	Multi-Volt 120	25	24	24	24	23	23	10	
					277	25	24	24	24	23	23		
		2	49707	GE-232-MAX-L/Ultra	Multi-Volt 120	48	48	47	46	46	45	45	10
					277	48	48	47	46	46	45	45	
		3	49708	GE-332-MAX-L/Ultra	Multi-Volt 120	73	72	71	69	68	67	66	10
					277	72	71	70	68	67	66		
		4	49709	GE-432-MAX-L/Ultra	Multi-Volt 120	97	95	93	92	90	88	87	10
					277	96	93	92	91	89	87		
		Normal	1	49771	GE-132-MAX-N/Ultra	Multi-Volt 120	28	28	27	27	26	26	10
						277	28	28	27	27	26	26	
	2		49772	GE-232-MAX-N/Ultra	Multi-Volt 120	54	54	53	53	52	51	50	10
						277	53	53	52	52	51	50	
		3	49773	GE-332-MAX-N/Ultra	Multi-Volt 120	82	80	78	78	77	74	10	
					277	80	78	77	77	75	73		
		4	49774	GE-432-MAX-N/Ultra	Multi-Volt 120	109	105	103	105	101	98	10	
					277	107	103	101	103	99	97		
	High	2	49775	GE-232-MAX-H/Ultra	Multi-Volt 120	74	71	69	71	69	67	10	
					277	73	70	68	70	68	66		
3		49776	GE-332-MAX-H/Ultra	Multi-Volt 120	111	105	102	106	102	97	96	10	
					277	109	103	100	104	100	96		
		4	49777	GE-432-MAX-H/Ultra*	Multi-Volt 120	TBD	TBD	TBD	TBD	TBD	TBD	10	
					277	TBD	TBD	TBD	TBD	TBD	TBD		
		GE UltraMax Ballasts			F96T8 Input Watts			F96T8/WM Input Watts			Units Per Case		
		Product Code	Description	Input Voltage	Input Watts <sup>†</sup>	In Fixture <sup>Δ</sup>		Input Watts <sup>†</sup>	In Fixture <sup>Δ</sup>				
						Open	Enclosed		Open	Enclosed			
	Normal	1	49766	GE-159-MAX-N/Ultra*	Multi-Volt 120	TBD	TBD	TBD	TBD	TBD	TBD	10	
						277	TBD	TBD	TBD	TBD	TBD	TBD	
		2	49767	GE-259-MAX-N/Ultra*	Multi-Volt 120	TBD	TBD	TBD	TBD	TBD	TBD	10	
					277	TBD	TBD	TBD	TBD	TBD	TBD		

\* Available first quarter of 2003

† Denotes standard laboratory non-fixture open bench testing.

Δ In fixture watts represent typical field operating conditions with ballast and lamps in fixture/luminaire. Open fixture denotes non-lensed fixture/luminaire. Enclosed fixture denotes lensed fixture/luminaire.

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### GE Lighting Web Center

GE is taking the lead in developing innovative uses of e-business technology to provide to you product and application information that can help you achieve your business goals. From interactive catalogs that deliver lamp and system performance information to Design Wizards that help in lamp and ballast selection and application, GELighting.com is the lighting site you will want to visit frequently.

[www.GELighting.com](http://www.GELighting.com)