

PROJECT NAME: _____ CAT. #: _____
 NOTES: _____ FIXTURE SCHEDULE: _____

UL TYPE A+B HYBRID T8

TYPE-A +B
Dual-Mode/Hybrid Series UL

PRODUCT DESCRIPTION:

MaxLite offers a safer, more reliable alternative to the dual-mode lamps on the market with the new Hybrid Series UL Type A/B LED T8 Lamp. Designed as a universal solution, the Hybrid Series lamp can be used with a compatible fluorescent ballast (UL-A) or ballast bypass (UL-B). Unlike competitors' lamps, the MaxLite product features improved integrated circuit (IC) technology that detects the lamp connection and corresponding operating mode. Each pin at the lamp base is engineered with a thermal fuse that detects overheating and responds by automatically shutting the lamp off. In addition, the lamp is packaged with a re-lamping label that provides a clear wiring description to help maintenance staff easily identify fixture modifications in the field. The MaxLite T8 also offers more robust ballast compatibility than competitors, including instant start, programmed start, emergency and dimming ballast compatibilities.

FEATURES:

- Dual Mode: Can be used with compatible fluorescent ballast (UL-A) and ballast bypass (UL-B)
- Ballast bypass (UL-B): Can be wired for single-ended power or double-ended power.
- Compatible with shunted and non-shunted lamp holders
- Instant on
- Mercury free and virtually no UV or IR light
- Suitable for damp locations
- ETL Sanitation listed (tested under NSF standard)
- All glass construction with PET coating

Ordering Information

FAMILY	WATTAGE	LAMP TYPE	OPERATION	LENGTH	COLOR TEMPERATURE	CONSTRUCTION
L = Linear Tube	10 = 10W 12 = 12W 13 = 13W	T8 = T8 Tube	AB = Dual Mode A+B	2 = 2ft 3 = 3ft 4 = 4ft	CS = 5CCT 30/35/40/50/65K	PCG - Pet Coated Glass

Stocked Items

ORDER CODE	MODEL NUMBER	DLC PRODUCT ID	DLC CLASSIFICATION	DLC PRIMARY USE DESIGNATION
112145	L10T8AB2CS-PCG	S-GPW1XV	Standard	Dual Mode Internal Driver (UL Type A and Type B)
112144	L12T8AB3CS-PCG	S-DPJ230		
112143	L13T8AB4CS-PCG	S-TT3KHJ		

Accessories

ORDER CODE	MODEL NUMBER	DESCRIPTION	IMAGE
103546	T8B-BBU	BATTERY BACK-UP FOR TYPE B LINEAR	

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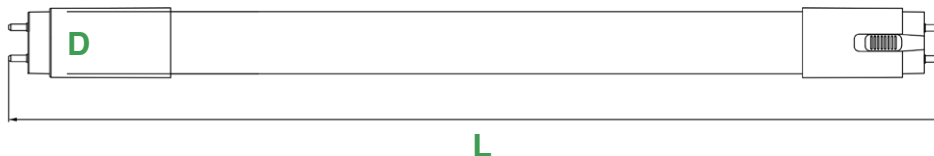
Specifications	L10T8AB2CS-PCG	L12T8AB3CS-PCG	L13T8AB4CS-PCG
Length	2 ft.	3 ft.	4 ft.
Base	G13		
Input Power (W)	Type A: 9W (Tube), 12W (System) Type B: 10W	Type A: 11W (Tube), 14W (System) Type B: 12W	Type A: 12W (Tube), 15.5W (System) Type B: 13W
Lumens Delivered (lm)	1425-1450 lm	1650-1700 lm	1900-1950 lm
Nominal Efficacy (lm/W)	Type A: 120-121 lm/W Type B: 143-145 lm/W	Type A: 120-121 lm/W Type B: 138-142 lm/W	Type A: 120-122 lm/W Type B: 146-150 lm/W
Color Temperature (K)*	3000K, 3500K, 4000K, 5000K, 6500K		
CRI	≥ 80		
Calculated L70 Lumen Maintenance	≥ 50,000 hours		
Dimming Technology	Ballast dependent in Type A applications. TRIAC dimming at 120V AC in Type B applications		
Dimming Range	Type A: Ballast dependent. Type B: TRIAC dimming at 120V AC, 10-100%.		
Input Voltage	120-277V AC, 50/60 Hz (Type B)		
Power Factor	≥ 0.9		
Diffuser	Pet Coated Glass		
Beam Angle	180°		
Operating Temperature**	-4°F to 113°F (-20°C to 45°C)		
Surge Protection	Type B surges: 700V for single ended, 700V for double ended		
Certifications	cULus listed, cULus classified, FCC, Rohs, ETL Sanitation listed: Food Equipment		
Qualifications	DLC Standard		
Environment	Damp Locations		
Warranty	5 Year warranty. Check maxlite.com/warranties for details		
Case Quantity	25 pcs		

* Default factory setting for CCT is 4000K

** Install max of 4 tubes in an enclosed fixture. Max Operating Temperature 86°F (30°C)

Product Dimensions

PRODUCT	L	D
L10T8AB2CS-PCG	23.68 in	1.1 in
L12T8AB3CS-PCG	35.7 in	
L13T8AB4CS-PCG	47.7 in	



FCC Statement

NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generated, used, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

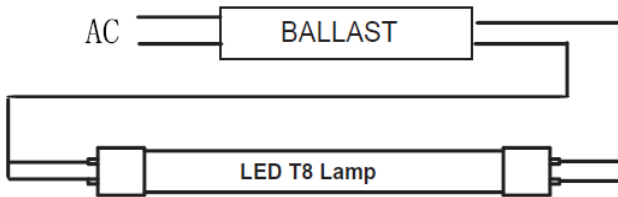
- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

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Wiring Diagram

Type A

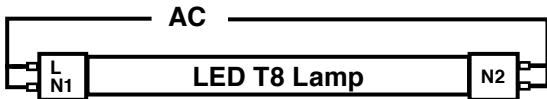


Type B

Single End Wiring Non-Shunted



Double End Wiring Non-Shunted



Dimmer Compatibility List (For Type B)

BRAND	MODEL	COMMENT
Lutron	CTELV-303P-WH	Compatible
	MAELD-600-WH	
	SELV-300P-WH	
	NTEL-600-WH	
	MSLELV-600M-SW	
	DVEL-V-300P	



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H815 Hybrid T8 5CS (2FT, 3FT, 4FT) Electronic Ballast Compatibility List

Ballast Description				1 Lamp Load		2 Lamps Load		3 Lamps Load		4 Lamps Load		Remark	
Brand	Part Number	Start Method	# of Lamps	Input Voltage		Input Voltage		Input Voltage		Input Voltage		Dimming	Ballast Version
				120V	277V	120V	277V	120V	277V	120V	277V		
Arcata	ACT2P32ISUNV	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	ACT4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Advance	ICN-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	/	/
	ICN-2P32-N	IS	2	✗	✗	✓	✓	-	-	-	-	/	REV C/E
	ICN-3P32-N	IS	3	-	-	✓	✓	✓	✓	-	-	/	REV D
	ICN-2P32-SC	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	ICN-2S40-N	RS	2	✓	✓	✓	✓	-	-	-	-	/	/
	IOPA-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	/	REV B
	IOPA-2P32-N	IS	2	✗	✗	✓	✓	-	-	-	-	/	REV A
	IOPA-3P32-N	IS	3	-	-	✓	✓	✓	✓	-	-	/	REV B
	IOPA-1P32-LW-N	IS	1	✗	✗	-	-	-	-	-	-	/	REV A
	IOPA-2P32-LW-N	IS	2	✗	✗	✓	✓	-	-	-	-	/	REV B
	IOPA-4P32-LW-N	IS	4	-	-	-	-	✓	✓	✓	✓	/	REV A
	RCN-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	/	REV D
	REZ-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	Dimming	REV E
	REL-2P32-SC	IS	2	✓	-	✓	-	-	-	-	-	/	/
	REL-4P32-RH-TP	IS	4	-	-	-	-	✓	-	✓	-	/	/
	RELB-2S40-N	RS	2	✗	-	✓	-	-	-	-	-	/	/
	ICN-4P32-N	IS	4	-	-	-	-	✓	✓	✓	✓	/	REV D
ICN-4P32-SC	IS	4	-	-	-	-	✓	✓	✓	✓	/	REV D compatible REV C incompatible	
Eiko	PM 2x32T8-UNV-IS-L	IS	2	✓	✓	✓	✓	-	-	-	-	/	/

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Ballast Description				1 Lamp Load		2 Lamps Load		3 Lamps Load		4 Lamps Load		Remark	
Brand	Part Number	Start Method	# of Lamps	Input Voltage		Input Voltage		Input Voltage		Input Voltage		Dimming	Ballast Version
				120V	277V	120V	277V	120V	277V	120V	277V		
ESPEN	VE232MVHIP	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	VE232MVHIPE	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	VE232MVHIPHE	IS	2	X	X	✓	✓	-	-	-	-	/	/
	VE232MVHIPL	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	VE432MVHIP	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	VE432MVHIPE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	VE432MVHIPHE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Fulham	NPY-120-232-LT8	PS	2	X	-	X	-	-	-	-	-	/	/
	NPY-120-432-T8B	IS	4	-	-	-	-	✓	-	✓	-	/	/
	NPY-120-432-T8-IS	IS	4	-	-	-	-	✓	-	✓	-	/	/
	WHCG3-120-T8-IS	IS	3	-	-	✓	-	✓	-	-	-	/	/
	WHCG5-120-T12-RS	RS	2	✓	-	✓	-	-	-	-	-	/	/
	WH2-120-L	IS	1	✓	-	-	-	-	-	-	-	/	/
	WH5-120-L	IS	4	-	-	-	-	✓	-	✓	-	/	/
Fusion	FB232MVE	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	FB232MVE-N	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	FB232MVE-HE	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	FB232MVE-LHE	IS	2	✓	-	✓	-	-	-	-	-	/	/
	FB232MVE-PPS-HE	PS	2	✓	✓	✓	✓	-	-	-	-	/	/
	FB332MVE	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	FB432MVE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	FB432MVE-HE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	FB432MVE-N	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	FB432MVE-PPS-HE	PS	4	-	-	-	-	✓	✓	✓	✓	/	/

✓ = Yes - = N/A X = No



UL TYPE A+B HYBRID T8

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Dual-Mode/Hybrid Series UL

H815 Hybrid T8 5CS (2FT, 3FT, 4FT) Electronic Ballast Compatibility List

Ballast Description				1 Lamp Load		2 Lamps Load		3 Lamps Load		4 Lamps Load		Remark	
Brand	Part Number	Start Method	# of Lamps	Input Voltage		Input Voltage		Input Voltage		Input Voltage		Dimming	Ballast Version
				120V	277V	120V	277V	120V	277V	120V	277V		
GE	GE132MAXP-N/ULTRA	IS	1	✓	✓	-	-	-	-	-	-	/	/
	GE 232-120RES-DIYB	IS	2	✓	-	✓	-	-	-	-	-	/	/
	GE 232-120-PS-N	PS	2	✓	-	✓	-	-	-	-	-	/	/
	GE232MAX-G-N	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232MAXP-L/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232MAXP-N/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232MAXP-H/ULTRA	IS	2	✗	✗	✓	✓	-	-	-	-	/	/
	GE232-MV-N	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232-MVPS-L	PS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232-MVPS-N	PS	2	✓	✓	✓	✓	-	-	-	-	/	/
	GE232-MVPS-H	PS	2	✗	✗	✓	✓	-	-	-	-	/	/
	GE332MAX-L/ULTRA	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	GE332MAX90-V60	IS	3	-	-	✗	✗	✓	✓	-	-	Dimming	/
	GE332MV-N-DIY	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	GE432-120-N	IS	4	-	-	-	-	✓	-	✓	-	/	/
	GE432MAX-G-N	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	GE432MAX-H/ULTRA	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
GE432MAX-H-42T	IS	4	-	-	-	-	✓	✓	✓	✓	/	/	
GE432MV-N-DIY	IS	4	-	-	-	-	✓	✓	✓	✓	/	/	
Greenhill	GH2P59ISUNV	IS	2	✗	✗	✓	✓	-	-	-	-	/	/
	GH4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Halco	EP232IS/H/MV/HE	IS	2	✗	✗	✓	✓	-	-	-	-	/	/
	EP332IS/L/MV/HE	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	EP332IS/MV/MC	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	EP432IS/L/MV/HE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
	EP432IS/MV/MC	IS	4	-	-	-	-	✓	✓	✓	✓	/	/

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Brand	Part Number	Start Method	# of Lamps	Input Voltage		Input Voltage		Input Voltage		Input Voltage		Dimming	Ballast Version
				120V	277V	120V	277V	120V	277V	120V	277V		
Howard	EP3/32IS/MV/SC/HE	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	EP4/32IS/MV/MC/HE	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Huafeng	ENI-T8-32-P2SC-N	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	ENI-T8-32-P4MC-N	IS	4	-	-	-	-	✗	✓	✗	✓	/	/
Keystone	KTEB-232-UV-IS-N-P	IS	2	✓	✓	✓	✓	-	-	-	-	/	Version D1
	KTEB-232-UV-PS-VDIM	PS	2	-	-	✓	✓	-	-	-	-	Dimming	/
	KTEB-332-UV-IS-N-P	IS	3	-	-	✓	✓	✓	✓	-	-	/	Version B
	KTEB-432-UV-IS-N-P	IS	4	-	-	-	-	✓	✓	✓	✓	/	Version A1
Osram	QHE 2x32T8/UNV DIM-TC	PS	2	-	-	✓	✓	-	-	-	-	Dimming	/
	QHE 2x32T8/UNV ISL SC	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	QTP 2x32T8/UNV ISN-SC	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	QTP 3x32T8/UNV PSX-SC	PS	3	-	-	-	-	✗	✗	-	-	/	/
	QHE 4x32T8/UNV PSN-SC	PS	4	-	-	-	-	✓	✓	✓	✓	/	/
	QTP 4x32T8/UNV ISN-SC	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Pacific	EB-332IS-U	IS	3	-	-	✓	✓	✓	✓	-	-	/	/
	EB-432IS-U	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Plusrite	BAF232IS/MV/H	IS	2	✗	✗	✓	✓	-	-	-	-	/	/
PQL	70201	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	70204	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Premium	BB-T8/UVH-2x32	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	BB-T8/UVH-3x32	IS	3	-	-	-	-	✓	✓	-	-	/	/
Robertson	RSW240T12120	PS	2	✓	-	✓	-	-	-	-	-	/	/

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Brand	Part Number	Start Method	# of Lamps	Input Voltage		Input Voltage		Input Voltage		Input Voltage		Dimming	Ballast Version
				120V	277V	120V	277V	120V	277V	120V	277V		
Standard	E232PI120L	IS	2	✓	-	✓	-	-	-	-	-	/	/
	E232T8IS120/L/AS	IS	2	✓	-	✓	-	-	-	-	-	/	/
	E232T8IS120/N/AS	IS	2	✓	-	✓	-	-	-	-	-	/	/
	E432T8IS120/H	IS	4	-	-	-	-	X	-	✓	-	/	/
	E432T8IS120/L/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	/	/
	E432T8IS120/N/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	/	/
Sunpark	SL15T	PS	2	X	-	✓	-	-	-	-	-	/	/
TCP	E4P32PSUNVE	PS	4	-	-	-	-	✓	✓	✓	✓	/	/
Universal	B232PUSV3PLA	PS	2	X	X	X	X	-	-	-	-	Dimming	REV A
	B232SR120S30	PS	2	-	-	X	-	-	-	-	-	Dimming	REV E
	B232IUNVHP-N	IS	2	-	-	✓	✓	-	-	-	-	/	REV B
	B332IUNVHP-A	IS	3	-	-	✓	✓	✓	✓	-	-	/	REV B
	B432IUNVHP-A	IS	4	-	-	-	-	✓	✓	✓	✓	/	REV B
Arcata	ACT2P32IS347	IS	2	✓	✓	✓	✓	-	-	-	-	/	/
	ACT4P32IS347	IS	4	-	-	-	-	✓	✓	✓	✓	/	/
Advance	GOPA-2P32-LW-SC	IS	2	✓	-	✓	-	-	-	-	-	/	REV D
	GOPA-4P32-LW-SC	IS	4	-	-	-	-	✓	-	✓	-	/	REV D
	GOPA-2P32-SC	IS	2	✓	-	✓	-	-	-	-	-	/	REV C
	GOPA-4P32-SC	IS	4	-	-	-	-	✓	-	✓	-	/	REV D
Fusion	FB232347E-HE	IS	2	✓	-	✓	-	-	-	-	-	/	/
	FB232347E-L	IS	2	✓	-	✓	-	-	-	-	-	/	/
	FB232347E-N	IS	2	✓	-	✓	-	-	-	-	-	/	/
	FB232347E-PPS-HE	PS	2	✓	-	✓	-	-	-	-	-	/	/
	FB432347E-HE	IS	4	-	-	-	-	✓	-	✓	-	/	/
	FB432347E-L	IS	4	-	-	-	-	✓	-	✓	-	/	/
	FB432347E-N	IS	4	-	-	-	-	✓	-	✓	-	/	/
FB432347E-PPS-HE	PS	4	-	-	-	-	✓	-	✓	-	/	/	

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				120V	277V	120V	277V	120V	277V	120V	277V		
GE	GE232MAX347-H	IS	2	X	-	✓	-	-	-	-	-	/	/
	GE232PS347-N	PS	2	✓	-	✓	-	-	-	-	-	/	/
	GE332MAX347-H	IS	3	-	-	X	-	✓	-	-	-	/	/
	GE432MAX347-H	IS	4	-	-	-	-	X	-	✓	-	/	/
	GE432PS347-N	PS	4	-	-	-	-	✓	-	✓	-	/	/
Osram	QHE 2x32 T8/347 ISL-SC	IS	2	✓	-	✓	-	-	-	-	-	/	/
	QHE 2x32 T8/347 ISN-SC	IS	2	✓	-	✓	-	-	-	-	-	/	/
Standard	E232T8IS347/H/90C	IS	2	X	-	X	-	-	-	-	-	/	/
	E232T8IS347/L/BULK	IS	2	✓	-	✓	-	-	-	-	-	/	/
	E232T8IS347/N/BULK	IS	2	✓	-	✓	-	-	-	-	-	/	/
	E432PI347G01	IS	4	-	-	-	-	✓	-	✓	-	/	/
	E432T8IS347/L/BULK	IS	4	-	-	-	-	✓	-	✓	-	/	/
	E432T8IS347/N	IS	4	-	-	-	-	✓	-	✓	-	/	/
	E432T8IS347/N/BULK	IS	4	-	-	-	-	✓	-	✓	-	/	/
E432T8IS347/H/90C	IS	4	-	-	-	-	✓	-	X	-	-	/	/
Ultrasave	MR232347	IS	2	X	-	✓	-	-	-	-	-	/	/
Universal	B232I347HE-A	IS	2	✓	-	✓	-	-	-	-	-	/	/
	B432I347HE-A	IS	4	-	-	-	-	✓	-	✓	-	/	/

✓ = Yes - = N/A X = No