



LED LAMPS BALLAST COMPATIBILITY

JUMP TO:

T5 LAMPS

PL LAMPS

PLL LAMPS

T8 TYPE A LAMPS

10/13W LED T8 Direct Fit (LED1xWT8F/48/8xx-G9DR) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3 Lamp		4 Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
ARCATA	ACT2P32ISUNV	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ARCATA	ACT4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ADVANCE	ICN-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	-	-
ADVANCE	ICN-2P32-N	IS	2	✗	✗	✓	✓	-	-	-	-	-	REV C-E
ADVANCE	ICN-3P32-N	IS	3	-	-	✓	✓	✓	✓	-	-	-	REV D
ADVANCE	ICN-4P32-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV D
ADVANCE	ICN-2P32-SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ADVANCE	ICN-4P32-SC	IS	4	-	-	-	-	✗	✓	✗	✓	-	REV D
ADVANCE	ICN-2S40-N	RS	2	✓	✓	✓	✓	-	-	-	-	-	-
ADVANCE	IOPA-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	-	REV B
ADVANCE	IOPA-2P32-N	IS	2	✗	✗	✓	✓	-	-	-	-	-	REV A
ADVANCE	IOPA-4P32-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV C
ADVANCE	IOPA-1P32-LW-N	IS	1	✗	✗	-	-	-	-	-	-	-	REV A
ADVANCE	IOPA-2P32-LW-N	IS	2	✗	✗	✓	✓	-	-	-	-	-	REV B
ADVANCE	IOPA-4P32-LW-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV A
ADVANCE	IOP-4PSP32-SC	PS	4	-	-	-	-	✓	✓	✓	✓	-	REV B
ADVANCE	RCN-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	-	REV D
ADVANCE	REZ-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	✓	REV E
ADVANCE	REL-2P32-SC	IS	2	✓	-	✓	-	-	-	-	-	-	UL 704G
ADVANCE	REL-4P32-RH-TP	IS	4	-	-	-	-	✗	-	✗	-	-	-
ADVANCE	RELB-2S40-N	RS	2	✗	-	✗	-	-	-	-	-	-	-
EIKO	PM 2x32T8-UNV-IS-L	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIP	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPHE	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPL	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE432MVHIP	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ESPEN	VE432MVHIPE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ESPEN	VE432MVHIPHE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
FULHAM	NPY-120-232-LT8	PS	2	✓	-	✓	-	-	-	-	-	-	-
FULHAM	NPY-120-432-T8B	IS	4	-	-	-	-	✓	-	✓	-	-	-
FULHAM	NPY-120-432-T8-IS	IS	4	-	-	-	-	✓	-	✓	-	-	-
FULHAM	WHCG3-120-T8-IS	IS	3	-	-	✓	-	✓	-	-	-	-	-
FULHAM	WHCG5-120-T12-RS	RS	2	✓	-	✓	-	-	-	-	-	-	-
FULHAM	WH2-120-L	IS	1	✓	-	-	-	-	-	-	-	-	-
FULHAM	WH5-120-L	IS	4	-	-	-	-	✗	-	✓	-	-	-
FUSION	FB232MVE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB232MVE-HE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB232MVE-LHE	IS	2	✓	-	✓	-	-	-	-	-	-	-
FUSION	FB232MVE-PPS-HE	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB332MVE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
FUSION	FB432MVE	IS	4	-	-	-	-	✗	✗	✗	✗	-	-
FUSION	FB432MVE-HE	IS	4	-	-	-	-	✗	✗	✗	✗	-	-
FUSION	FB432MVE-PPS-HE	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
GE	GE132MAXP-N/ULTRA	IS	1	✓	✓	-	-	-	-	-	-	-	-
GE	GE 232-120RES-DIYB	IS	2	✓	-	✓	-	-	-	-	-	-	-
GE	GE 232-120-PS-N	PS	2	✓	-	✓	-	-	-	-	-	-	-
GE	GE232MAX-G-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-L/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-N/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-H/ULTRA	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
GE	GE232-MV-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-L	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-N	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-H	PS	2	✗	✗	✓	✓	-	-	-	-	-	-

✓ = Compatible ✗ = Incompatible

Rev. 5/12/22

10/13W LED T8 Direct Fit (LED1xWT8F/48/8xx-G9DR) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3 Lamp		4 Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
GE	GE332MAX-L/ULTRA	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
GE	GE332MAX90-V60	IS	3	-	-	✗	✗	✓	✓	-	-	✓	-
GE	GE332MV-N-DIY	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
GE	GE432MAX-G-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GE	GE432MAX-H/ULTRA	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GE	GE432MAX-H-42T	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GREENHILL	GH2P59ISUNV	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
GREENHILL	GH4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HALCO	EP232IS/H/MV/HE	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
HALCO	EP332IS/L/MV/HE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HALCO	EP332IS/MV/MC	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HALCO	EP432IS/L/MV/HE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HALCO	EP432IS/MV/MC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HOWARD	EP3/32IS/MV/SC/HE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HOWARD	EP4/32IS/MV/MC/HE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HUAFENG	ENI-T8-32-P2SC-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
HUAFENG	ENI-T8-32-P4MC-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
KEYSTONE	KTEB-132-UV-IS-L-P	IS	1	✓	✓	-	-	-	-	-	-	-	-
KEYSTONE	KTEB-132-UV-PS-N-P	IS	1	✓	✓	-	-	-	-	-	-	-	A4
KEYSTONE	KTEB-232-UV-IS-L-P	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	✓	✓	✓	✓	-	-	-	-	-	D1
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	✗	✗	✓	✓	-	-	-	-	-	D1
KEYSTONE	KTEB-232-UV-PS-VDIM	PS	2	-	-	✓	✓	-	-	-	-	✓	-
KEYSTONE	KTEB-232-UV-PS-H-P	PS	2	✗	✗	✗	✗	-	-	-	-	-	-
KEYSTONE	KTEB-332-UV-IS-L-P	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	-	-	✓	✓	✓	✓	-	-	-	B
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	-	-	✗	✗	✓	✓	-	-	-	D1
KEYSTONE	KTEB-332-UV-PS-L-P	PS	3	-	-	✓	✓	✓	✓	-	-	-	D2
KEYSTONE	KTEB-332-UV-PS-N-P	PS	3	-	-	✓	✓	✓	✓	-	-	-	D2
KEYSTONE	KTEB-332-UV-PS-H-P	PS	3	-	-	✗	✗	✗	✗	-	-	-	-
KEYSTONE	KTEB-432-UV-IS-L-P	IS	4	-	-	-	-	✓	✓	✓	✓	-	A1
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	-	-	-	-	✓	✓	✓	✓	-	A1
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	-	-	-	-	✗	✗	✓	✓	-	A3
KEYSTONE	KTEB-432-UV-PS-L-P	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
KEYSTONE	KTEB-432-UV-PS-N-P	PS	4	-	-	-	-	✓	✓	✓	✓	-	D2
OSRAM	QHE 2x32T8/UNV DIM-TC	PS	2	-	-	✓	✓	-	-	-	-	✓	-
OSRAM	QHE 2x32T8/UNV ISL SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
OSRAM	QTP 2x32T8/UNV ISN-SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
OSRAM	QTP 3x32T8/UNV PSX-SC	PS	3	-	-	-	-	✗	✗	-	-	-	-
OSRAM	QHE 4x32T8/UNV ISL SC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
OSRAM	QHE 4x32T8/UNV PSN-SC	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
OSRAM	QTP 4x32T8/UNV ISN-SC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PACIFIC	EB-332IS-U	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
PACIFIC	EB-432IS-U	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PLUSRITE	BAF232IS/MV/H	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
PQL	70201	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
PQL	70204	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PREMIUM	BB-T8/UVH-2x32	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
PREMIUM	BB-T8/UVH-3x32	IS	3	-	-	-	-	✓	✓	-	-	-	-
ROBERTSON	RSW240T12120	PS	2	✗	-	✗	-	-	-	-	-	-	-
STANDARD	E232PI120L	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8IS120/L/AS	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8IS120/N/AS	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8PS120-277/N/AS/BULK	PS	2	-	-	✓	✓	-	-	-	-	-	-
STANDARD	E432T8IS120/H	IS	4	-	-	-	-	✗	-	✓	-	-	-
STANDARD	E432T8IS120/L/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	-	-
STANDARD	E432T8IS120/N/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	-	-
SUNPARK	SL15T	PS	2	✓	-	✓	-	-	-	-	-	-	-
TCP	E4P32PSUNVE	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
UNIVERSAL	B232PUSV3PLA	PS	2	✓	✓	✓	✓	-	-	-	-	✓	REV A
UNIVERSAL	B232SR120S30	PS	2	-	-	✗	-	-	-	-	-	✓	REV E
UNIVERSAL	B132IUNVHP-N	IS	1	✓	✗	-	-	-	-	-	-	-	REV C
UNIVERSAL	B232IUNVHP-N	IS	2	-	-	✓	✓	-	-	-	-	-	REV B

✓ = Compatible ✗ = Incompatible

10/13W LED T8 Direct Fit (LED1xWT8F/48/8xx-G9DR) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3 Lamp		4 Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
UNIVERSAL	B332IUNVHP-A	IS	3	-	-	✓	✓	✓	✓	-	-	-	REV B
UNIVERSAL	B432IUNVHP-A	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV B
UNIVERSAL	B232PUNVHE-B	PS	2	✗	✗	✓	✓	-	-	-	-	-	REV B

✓ = Compatible ✗ = Incompatible

10/13W LED T8 Direct Fit (LED1xWT8F/48/8xx-G9DR) 347V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3 Lamp		4 Lamp		Dim	Ballast Version
				347	347	347	347	347	347				
ARCATA	ACT2P32IS347	IS	2	✓	✓	-	-	-	-	-	-	-	-
ARCATA	ACT4P32IS347	IS	4	-	-	-	-	✓	✓	-	-	-	-
ADVANCE	GOPA-2P32-LW-N	IS	2	✓	✗	-	-	-	-	-	-	-	REV A
ADVANCE	GOPA-2P32-LW-SC	IS	2	✓	✓	-	-	-	-	-	-	-	REV D
ADVANCE	GOPA-4P32-LW-SC	IS	4	-	-	-	-	✓	✓	-	-	-	REV D
ADVANCE	GOPA-2P32-SC	IS	2	✓	✓	-	-	-	-	-	-	-	REV C
ADVANCE	GOPA-4P32-SC	IS	4	-	-	-	-	✓	✓	-	-	-	REV D
FUSION	FB232347E-HE	IS	2	✓	✓	-	-	-	-	-	-	-	-
FUSION	FB232347E-L	IS	2	✓	✓	-	-	-	-	-	-	-	-
FUSION	FB232347E-PPS-HE	PS	2	✓	✓	-	-	-	-	-	-	-	-
FUSION	FB432347E-HE	IS	4	-	-	-	-	✓	✓	-	-	-	-
FUSION	FB432347E-L	IS	4	-	-	-	-	✓	✓	-	-	-	-
FUSION	FB432347E-PPS-HE	PS	4	-	-	-	-	✓	✓	-	-	-	-
GE	GE232MAX347-H	IS	2	✗	✓	-	-	-	-	-	-	-	-
GE	GE332MAX347-H	IS	3	-	✗	-	-	✓	✓	-	-	-	-
GE	GE432MAX347-H	IS	4	-	-	-	-	✗	✗	-	-	-	-
KEYSTONE	KTEB-232-3-IS-N-P	IS	2	✓	✓	-	-	-	-	-	-	-	-
KEYSTONE	KTEB-432-3-IS-N-P	IS	4	-	-	-	-	✓	✓	-	-	-	-
MAGNETEK	B232I347HP	IS	2	✗	✗	-	-	-	-	-	-	-	-
OSRAM	QHE 2x32 T8/347 ISL-SC	IS	2	✓	✓	-	-	-	-	-	-	-	-
OSRAM	QHE 2x32 T8/347 ISN-SC	IS	2	✓	✓	-	-	-	-	-	-	-	-
OSRAM	QHE 4x32 T8/347 ISL-SC	IS	4	-	-	-	-	✓	✓	-	-	-	-
STANDARD	E232T8IS347/H/90C	IS	2	✗	✗	-	-	-	-	-	-	-	-
STANDARD	E232T8IS347/L/BULK	IS	2	✓	✓	-	-	-	-	-	-	-	-
STANDARD	E232T8IS347/N/BULK	IS	2	✓	✓	-	-	-	-	-	-	-	-
STANDARD	E432PI347G01	IS	4	-	-	-	-	✓	✗	-	-	-	-
STANDARD	E432T8IS347/L/BULK	IS	4	-	-	-	-	✓	✓	-	-	-	-
STANDARD	E432T8IS347/N	IS	4	-	-	-	-	✓	✓	-	-	-	-
STANDARD	E432T8IS347/N/BULK	IS	4	-	-	-	-	✗	✗	-	-	-	-
STANDARD	E432T8IS347/H/90C	IS	4	-	-	-	-	✗	✗	-	-	-	-
ULTRASAVE	JR232347	RS	2	-	✗	-	-	-	-	-	-	-	-
ULTRASAVE	MR232347	IS	2	✗	✓	-	-	-	-	-	-	-	-
UNIVERSAL	B232I347HE-A	IS	2	✓	✓	-	-	-	-	-	-	-	-
UNIVERSAL	B432I347HE-A	IS	4	-	-	-	-	✓	✓	-	-	-	-
UNIVERSAL	B432I347RH	IS	4	-	-	-	-	✓	✓	-	-	-	REV H

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	P	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	0.78	Parallel	✓	✗	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Cooper Lighting	CL-432ISUNV-R1-B	IS	4	H	1.18	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N	/	Parallel	✗	✗	✗	✗
DAMAR	EL232DIM/120/277HF	DPS	2	L	/	Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H	/	Parallel	✓	P	✓	P
DAMAR	EL332-120/277HF(3654C)	IS	3	N	/	Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H	/	Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H	/	Parallel	✗	✗	✗	✗
EcoSystem	EC5T832GUNV3L	PRS	3	/	/	Parallel	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	P,T	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	P	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
ESPEN	VE2P32MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
General Electric	332MAX-H-42T	IS	3	H	/	Parallel	✗	✗	✗	✗
General Electric	332MAX-H-84TS	IS	3	H	/	Parallel	✗	✗	✗	✗
General Electric	GE132MAX-G-N	IS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	NA	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	L	0.78	NA	NA	NA	✗	✗
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE232MAX347-N	IS	2	H	1.02	Parallel	NA	✗	NA	✗
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	✓	P	✓	P
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	P	✓	✓
General Electric	GE-232-MAX-H/Ultra □	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE-232-MAX-H-42T	IS	2	H	/	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-N/ULTRA □	IS	2	N	0.88	Parallel	✓	P	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE232MAXP-N/ULTRA	IS	2	N	/	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-N □	IS	2	N	0.88	Parallel	✓	P	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✓	✗	✓	✗
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE332MAXP-L/ULTRA	IS	3	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-N/ULTRA	IS	3	N	/	Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-H	PS	3	H	/	Parallel	✗	✗	✗	✗
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✗	NA	✗	NA
General Electric	GE432MAX347-H	IS	4	H	1.18	Parallel	NA	/	NA	/
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	✓4x,T	NA	✓
General Electric	GE432MAX90-S60	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MAX-G-H	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA □	IS	4	H	1.18	Parallel	✓	✗	✓	✓
General Electric	GE432MAX-H-42T	IS	4	H	/	Parallel	✗	✗	✗	✗
General Electric	GE432MAX-L/ULTRA □	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MV-N	IS	4	N	/	Parallel	✓	✓	✓	✓
General Electric	GE432MV-N-42T	IS	4	N	0.93	Parallel	✗	✗	✗	✗
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✗	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	N	0.88	Parallel	✓	NA	✓	NA
Halco	EP432IS/L/MV/HE	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✗	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✗
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	P,T	NA
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3032ISDMVDMCDBHE	IS	3	N	0.88	Parallel	✓	✗	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PPRS/MV/SC/HE	PRS	4	N	/	Parallel	✓	✓	✓	✗
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✓	✗	✓	✗
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	✗	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N	0.85	NA	✗	NA	NA	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-L-P	IS	2	L	/	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	N	0.87	Parallel	✓	P	✓	✓
KEYSTONE	KTEB-2C72-1-TP	PS	1	N	0.97	Parallel	NA	NA	✗	✗
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	✗	✓	✗
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	P,T	NA	P,T	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✗	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTLD-2T8LED-UV-IS-VDIM	IS	2	/	/	Parallel	✗	✗	✗	✗
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
LUTRON	EHDT817MU210	DPRS	2	/	/	Series	✗	✗	✗	✗
MAXLITE	MLEU322HEL/SC	IS	2	N	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	P,T	✓	P,T
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	L	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	✓	✗	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MOTOROLA	M2-IN-T8-GP-D-277	IS	2	/	/	Parallel	/	✓	/	✓
MOTOROLA	M3-IN-T8-GP-A-277	IS	3	/	/	Parallel	/	✓	/	✓
OSRAM	QHE 2x32T8/347 PSN-SC	PRS	2	N	0.88	Parallel	✗	✗	✗	✗
OSRAM	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	✓	NA	✓
OSRAM	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1	N	0.88	NA	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1	L	0.77	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC □	IS	2	H	1.2	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	P,T	✗	✗,P,T	P,T
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC □	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC □	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV DIM-TCL	DPS	3	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3	H	1.15	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV DIM-TCL	DPS	4	N	0.88	Series	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
OSRAM SYLVANIA	QHE 4X32T8/UNV ISH	IS	4	H	/	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH HT-1	IS	4	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H	1.2	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC □	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC □	IS	4	N	0.88	Parallel	✓	✗	✓	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC □	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	L	0.78	Parallel	NA	✗	NA	✗
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	✗	✗	✗	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N	/	Parallel	P,T	NA	P,T	NA
PES	PES120DET8-12SMT	PS	2	N	0.95	Parallel	✗	✗	✗	✗
PES	PES120ET8-12SMT-4	IS	4	N	0.88	Parallel	✗	NA	✗	NA
Philips-Advance	GOPA-2P32-N	IS	2	N	/	Parallel	(347V)	NA	(347V)	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	N	0.91	NA	NA	NA	✗	✗
Philips-Advance	ICN-2P16-TLED-N	IS	2	N	/	NA	✗	✗	✗	✗
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P16-TLED-N	IS	3	N	/	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-3P32-SC	IS	3	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P16-TLED-N	IS	4	N	/	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-SC	IS	4	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-LW-N	IS	1	L	/	Parallel	NA	NA	✓	✓
Philips-Advance	IOP-1P32-LW-SC	IS	1	/	/	NA	NA	NA	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	NA	NA	✗	✗
Philips-Advance	IOP-1P32-SC	IS	1	N	0.87	Parallel	NA	NA	✓	✓
Philips-Advance	IOP-1S32-SC	PS	1	N	0.87	NA	NA	NA	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-LW-SC	IS	2	L	/	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	✗	✗	✗	✗
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3P32-LW-SC	IS	3	L	/	Parallel	✓	P,T	✗	✓
Philips-Advance	IOP-3P32-N	IS	3	N	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-LW-SC	IS	4	L	/	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4	N	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-1P32-N	IS	1	N	0.88	NA	NA	NA	✗	✗
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	N	0.86	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-4P32-HL	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-LW-N	IS	4	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4	N	0.92	Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	✗	✗	✗	✗
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	X	X	X	X
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	X	NA	X	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	P,T	NA	P,T	NA
Philips-Advance	REL-2P32-RH-TP	IS	2	H	/	Parallel	P,T	NA	P,T	NA
Philips-Advance	REZ-132-SC	DPS	1	H	1	NA	NA	NA	X	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N	/	Series	X	NA	X	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	X	X	X	X
Philips-Advance	VEL-2P32-RH-TP	IS	2	N	/	Parallel	NA	X	NA	X
Philips-Advance	VEL-2P32-SC	IS	2	N	0.88	Parallel	NA	X	NA	X
Philips-Advance	VEL-3P32-SC	IS	3	N	0.88	Parallel	NA	/	NA	/
Philips-Advance	VZT-4S32-HL	DPS	4	/	/	Parallel	NA	X	NA	X
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	P,T	NA	P,T	NA
Robertson	RSZ132T8120	PS	1	N	0.80	NA	NA	NA	X	X
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	✓	X
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	✓	NA
SUNPARK	120-3/32IS MPF	IS	3	N	0.88	Parallel	P,T	NA	P,T	NA
SUNPARK	LC 12011T	PS	1	H	/	NA	/	NA	X	NA
SUNPARK	LC 12013T	PS	1	H	/	NA	/	NA	X	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	P,T	NA	P,T	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	NA	NA	NA	X	X
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88	Series	X	X	X	X
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15	Series	X	X	X	X
SUNPARK	U-232PS3	RS	2	N	0.88	Series	X	X	X	X
SUNPARK	U-232PS3-HBF	RS	2	H	1.15	Series	X	X	X	X
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	X	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	X	✓	X
Superior Life	70210	PS	2	N	0.88	Parallel	X	X	X	X
Superior Life	70211	PS	4	N	0.87	Parallel	X	X	X	X
SYLVANIA	QT 2X32/347LP	IS	2	N	0.88	Parallel	NA	P,T	NA	P,T
SYLVANIA	QT 2x32277 IS-SC	IS	2	/	/	Parallel	NA	P,T	NA	T
SYLVANIA	QT 3x32/277 IS	IS	3	N	0.9	Parallel	NA	P,T	NA	P,T
SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	✓	NA	✓
SYLVANIA	QT 4X32/347LP	IS	4	/	/	Parallel	NA	P,T	NA	P,T
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	X	✓	X
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	X
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	X	✓	X
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	X	✓	X
TCP	E4P32ISUNVHE	IS	4	N	1.18	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	X	X	X	X
TCP	TCP3P32ISUNVH	IS	3	H	1.18	Parallel	✓	X	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVEL-A	IS	1	/	/	Parallel	NA	NA	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	NA	NA	NA	✓	X
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	P,T	NA	P,T	NA
Universal Lighting Technologies	B232I277RH-A	IS	4	H	1.09	Parallel	NA	✓	NA	P,T
Universal Lighting Technologies	B232IUNV-3	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHEH-A	IS	2	N	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10W LED T8 Direct Fit (LED10WT8F/36/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	X	X	X	X
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PUS50-A	PRS	2	N	0.88	Parallel	X	X	X	X
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	X	X	X	X
Universal Lighting Technologies	B332I277RH-A	IS	3	N	0.88	Parallel	NA	P	NA	P
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	P	✓	✓
Universal Lighting Technologies	B332PUNVHE-A	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432I347HE-A	IS	4	L	0.77	Parallel	NA	X	NA	X
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	1.15	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HEBSCD	IS	2	N	0.87	Parallel	✓	X	✓	X
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3	H	/	Series	X	X	X	X
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Cooper Lighting	CL-432ISUNV-R1-B	IS	4	H	1.18	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N		Parallel	✓	✓	✓	✓
DAMAR	EL232DIM/120/277HF	DPS	2	L	?	Series	X	X	X	X
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H		Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N		Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H		Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N		Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H		Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	X	X	X	X
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-PS	PS	2	N	0.88	Parallel	X	X	X	X
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	X	X	X	X
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	X	X	X	X
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPEL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	X	X	X	X
ESPEN	VE2P32MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	N	0.88	n.a	NA	NA	X	X
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	n.a	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	L	0.78	n.a	NA	NA	X	X
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	n.a	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	n.a	NA	NA	X	X
General Electric	GE232MAX347-N	IS	2	H	1.02	Parallel	NA	X	NA	X
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE-232-MAX-H-42T	IS	2	H	/	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✗	✗
General Electric	GE232MAXP-N/ULTRA	IS	2	N		Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✓	P,T	✓	P,T
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-H-42T	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-H-84TS	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	(✓4XV)	NA	(✓4XV)
General Electric	GE432MAX90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-H	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H-42T	IS	4	H	/	Parallel	✓	T	✓	T
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✗	✗	✗	✗
General Electric	GE432MAX-N/ULTRA	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MV-N-42T	IS	4	N	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432-MVPS-N	PS	4	N	0.88	Parallel	✗	✗	✗	✗
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	0.88	Parallel	✓	✓	✓	✓
Halco	EP432IS/L/MV/HE	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	✓	NA
HOWARD INDUSTRIES	E2/32IS-277	IS	2			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/208-277	IS	3			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PPRS/MV/SC/HE	PRS	4	N	?	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	P,T	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N	?	NA	NA	NA	✗	NA
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✗	NA	✗	NA

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	N	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	L	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
motorola	M2-IN-T8-GP-D-277	IS	2	/	/	Parallel	NA	✓	NA	✓
motorola	M3-IN-T8-GP-A-277	IS	3	/	/	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1	N	0.88	NA	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1	L	0.77	NA	NA	NA	✓	P,T
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	(✓4xV)	NA	(✓4xV)
OSRAM SYLVANIA	QHE 2x32T8/347 PSN-SC	PRS	2	N	0.88	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	P,T	P,T	✗	P,T
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3	H	1.15	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	(✓4xV)	NA	(✓4xV)
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH HT-1	IS	4	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	1.20	Parallel	NA	NA	NA	(✓4xV)
OSRAM SYLVANIA	QT 3x32/277 IS	IS	3			Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	(✓4xV)	NA	(✓4xV)
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2	N	0.9	Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QT2x32T8/277 ISN-SC	IS			0.88	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	P,T	✓	✓
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	L	0.78	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP2X32T8/UNV DIM-TC	DPS	2	N	0.88	?	✗	✗	✗	✗
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	✗	✗	✗	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N		Parallel	P,T	NA	✗	NA
Philips-Advance	GOPA-2P32-N	IS	2	N	/	Parallel	✓	✓	✓	✓
Philips-Advance	GOPA-4P32-SC	IS	4	-	-	Parallel	(✓4xV)	NA	(✓4xV)	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	✗	✗
Philips-Advance	ICN-1P32-N	IS	1	N	0.91	NA	NA	NA	✗	✗
Philips-Advance	ICN-2P16-TLED-N	IS	2	N	1.18	NA	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2			Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-3P32-SC	IS	3	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P16-TLED-N	IS	4	N		Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	✗	✗	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2PSP32-N	PS	2	N		Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	✗	✗	✗	✗
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3P32-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4	N	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4PSP32-SC	PS	4	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-1P32-N	IS	1	N	0.88	NA	✗	✗	✗	✗
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	N	0.86	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-HL	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-HL-SC	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-N	IS	4	N	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-4P32-SC	IS	4	N	0.92	Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	✗	✗	✗	✗
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	✗	✗	✗	✗
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	✗	✗	✗	✗
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REL-2P32-RH-TP	IS	2	H	/	Parallel	✓	✓	✓	✓
Philips-Advance	REZ-132-SC	DPS	1	H	1	NA	NA	NA	✗	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N	?	Series	✗	NA	✗	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	✗	NA	✗	NA
Philips-Advance	VCN-2P32-SC	IS	2			Parallel	NA	✓	NA	✓
Philips-Advance	VCN-4P32-SC	IS	4			Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-RH-TP	IS	2	N		Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. D)	IS	2	N	0.88	Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. G)	IS	2	N	0.88	Parallel	NA	✓	NA	✓
Philips-Advance	VEL-3P32-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	VZT-4S32-HL	DPS	4			Parallel	NA	✗	NA	✗
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ProLume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✓	NA	✓	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✗	✗	✓	✓
Robertson	ISU232T8HEMV	IS	2			Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Standard Products	E232T8IS120-277/N/AS	IS	2		0.87		✓	✓	✓	✓
Standard Products	E232T8IS120-277/N/AS	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Standard Products	E432T8IS347/N/BULK	IS	4	-	-	Parallel	✓4xV	NA	✓4xV	NA

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	✓	NA
SUNPARK	120-3/32IS MPF	IS	3	N	0.88	Parallel	P,T	NA	P,T	NA
SUNPARK	LC 12011T	PS	1	H		NA	NA	NA	✗	NA
SUNPARK	LC 12013T	PS	1	H		NA	NA	NA	✗	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	✗	NA	✗	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	n.a	NA	NA	✗	✗
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88		✗	✗	✗	✗
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15		✗	✗	✗	✗
SUNPARK	U-232PS3	RS	2	N	0.88		✗	✗	✗	✗
SUNPARK	U-232PS3-HBF	RS	2	H	1.15		✗	✗	✗	✗
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Superior Life	70210	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Superior Life	70211	PS	4	N	0.87	Parallel	✗	✗	✗	✗
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✗	✗	✗	✗
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVHE	IS	3	H	/	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✗	✓	✓
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVHE	IS	4	N	1.18	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✗	✗	✗	✗
TCP	TCP3P32ISUNVH	IS	3	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	n.a	NA	NA	✓	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	T	NA	T	NA
Universal Lighting Technologies	B232I277RH-A	IS	2	H	1.09	Parallel	NA	✗	NA	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHEH-A	IS	2	N	118.00	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHP-A	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IHRVHB-E	IS	3	H	/	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	1.15	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE (SC)	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3	H			✗	✗	✗	✗
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

12W LED T8 Direct Fit (LED12WT8/48/8xx-G8DR) - Emergency Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	N Lamp
ESPEN	VEM500DV(L)	AC	1	✓
ESPEN	VEM700DV(L)	AC	2	✓
EXITRONIX	XEB-7-B-LM	AC	1	✓
KEYSTONE	KT-EMRG-800-T5	AC	1	✓
TAMLITE	BAL1400LPACTD	AC	2	✓
TAMLITE	PACO457	AC	2	✓

✓ = Compatible

15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Cooper Lighting	CL-432ISUNV-R1-B	IS	4	H	1.18	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N	?	Parallel	✓	✗	✓	✓
DAMAR	EL232DIM/120/277HF	DPS	2	L	?	Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N	?	Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N	?	Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H	?	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✗	✗	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✗	✗	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✗	✗	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
ESPEN	VE2P32MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-L/ULTRA	IS	1	L	0.78	NA	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	NA	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	n.a	NA	NA	✗	✗
General Electric	GE232MAX347-N	IS	2	H	1.02	Parallel	NA	P,T,347V	NA	347V
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE-232-MAX-H-42T	IS	2	H	/	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-H-42T	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-H-84TS	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	X	X	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	X	X	X	X
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	347V	NA	347V
General Electric	GE432MAX90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-H	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H-42T	IS	4	H	/	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	X	X	X	X
General Electric	GE432MV-N-42T	IS	4	N	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432-MVPS-N	PS	4	N	0.88	Parallel	X	X	X	X
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	X	X	X	X
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	0.88	Parallel	X	X	X	X
Halco	EP432IS/L/MV/HE	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	✓	NA	✓	NA
HOWARD INDUSTRIES	E2/32IS-277	IS	2			Parallel	NA	X	NA	X
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	X	X	X	X
HOWARD INDUSTRIES	EP3/32IS/208-277	IS	3			Parallel	NA	X	NA	X
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PPRS/MV/SC/HE	PRS	4	N	?	Parallel	X	X	X	X
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	X	X	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	X	X	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	X	X	X	X
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N	?	NA	NA	NA	X	NA
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	X	X	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	X	X	✓	✓
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	N	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	L	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
motorola	M2-IN-T8-GP-D-277	IS	2	/	/	Parallel	NA	✓	NA	✓
motorola	M3-IN-T8-GP-A-277	IS	3	/	/	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1	N	0.88	NA	NA	NA	X	X
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1	H	1.20	NA	NA	NA	✓	P,T
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	347V	NA	347V
OSRAM SYLVANIA	QHE 2x32T8/347 PSN-SC	PRS	2	N	0.88	Parallel	X	X	X	X
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	X	X	X	X
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	X	X	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	X	X	X	X
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	X	X	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	X	X	X	X
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3	H	1.15	Parallel	X	X	X	X
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	347V	NA	347V
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH HT-1	IS	4	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	X	X	X	X
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	X	X	X	X
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2	L	0.71	Parallel	X	X	X	X
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	1.20	Parallel	NA	NA	NA	347V
OSRAM SYLVANIA	QT 3x32/277 IS	IS	3			Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	347V	NA	347V
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2	N	0.9	Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QT2x32T8/277 ISN-SC	IS			0.88	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	X	X	X	X
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88	?	X	X	X	X
OSRAM SYLVANIA	QTP2X32T8/277 ISN-D	IS	2	L	0.78	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	X	X	X	X
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N		Parallel	✓	NA	✓	NA
Philips-Advance	GOPA-2P32-N	IS	2	N	/	Parallel	✓	✓	✓	✓
Philips-Advance	GOPA-4P32-SC	IS	4	-	-	Parallel	347V	NA	347V	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	N	0.91	NA	NA	NA	X	X
Philips-Advance	ICN-2P16-TLED-N	IS	2	N		Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2			Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	X	X	X	X
Philips-Advance	ICN-3P32-SC	IS	3	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P16-TLED-N	IS	4	N		Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	X	X	X	X
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	X	X	X	X
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	X	X	X	X
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	X	X	X	X
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	X	X	X	X
Philips-Advance	IOP-3P32-N	IS	3	N	0.87	Parallel	X	X	X	X
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	X	X	X	X
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4	N	0.87	Parallel	X	X	X	X
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4PSP32-SC	PS	4	N	0.89	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable



15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	IOPA-1P32-N	IS	1	N	0.88	NA	X	X	X	X
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	X	X	X	X
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	N	0.86	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-HL	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4	N	0.92	Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	X	X	X	X
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	X	X	X	X
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	X	X	X	X
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	X	NA	✓	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REL-2P32-RH-TP	IS	2	H	/	Parallel	✓	✓	✓	✓
Philips-Advance	REZ-132-SC	DPS	1	H	1	n.a	NA	NA	X	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N	?	Series	X	NA	X	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	X	NA	X	NA
Philips-Advance	VCN-2P32-SC	IS	2			Parallel	NA	✓	NA	✓
Philips-Advance	VCN-4P32-SC	IS	4			Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-RH-TP	IS	2	N		Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. D)	IS	2	N	0.88	Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. G)	IS	2	N	0.88	Parallel	NA	T	NA	✓
Philips-Advance	VEL-3P32-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	VZT-4S32-HL	DPS	4			Parallel	NA	X	NA	X
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88	?	✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ProLume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	P,T	NA	P,T	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Robertson	ISU232T8HEMV	IS	2			Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	X	X
Standard Products	E232T8IS120-277/N/AS	IS	2		0.87		✓	✓	✓	✓
Standard Products	E232T8IS120-277/N/AS	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Standard Products	E432T8IS347/N/BULK	IS	4	-	-	Parallel	347V	NA	347V	NA
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	✓	NA
SUNPARK	120-3/32IS MPF	IS	3	N	0.88	Parallel	✓	NA	✓	NA
SUNPARK	LC 12011T	PS	1	H		NA	NA	NA	X	NA
SUNPARK	LC 12013T	PS	1	H		NA	NA	NA	X	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	X	NA	X	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	n.a	NA	NA	X	X
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88		X	X	X	X
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-232PS3	RS	2	N	0.88		X	X	X	X
SUNPARK	U-232PS3-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	X	X	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	X	X	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	X	✓	✓
Superior Life	70210	PS	2	N	0.88	Parallel	X	X	X	X
Superior Life	70211	PS	4	N	0.87	Parallel	X	X	X	X
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	X	X	✓	✓
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVHE	IS	3	H	/	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	X	✓	✓
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVHE	IS	4	N	1.18	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✗	✓	✓
TCP	TCP3P32ISUNVH	IS	3	H	1.18	Parallel	✗	✗	✓	✓
TOPAZ	B232IUNVVEH/A-TPZ	IS	2	H	1.18	Parallel	✗	✗	✓	✓
TOPAZ	B432IUNVVEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	NA	NA	NA	✗	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	T	NA	T	NA
Universal Lighting Technologies	B232I277RH-A	IS	2	H	1.09	Parallel	NA	T	NA	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHEH-A	IS	2	H	1.18	Parallel	✗	✗	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✗	✗	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHP-A	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IHRVHB-E	IS	3	H	/	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	1.15	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE (SC)	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3	H			✗	✗	✗	✗
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G8DR) - Emergency Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	N Lamp
ESPEN	VEM500DV(L)	AC	1	✓
ESPEN	VEM700DV(L)	AC	2	✓
EXITRONIX	XEB-7-B-LM	AC	1	✓
KEYSTONE	KT-EMRG-800-T5	AC	1	✓
TAMLITE	BAL1400LPACTD	AC	2	✓
TAMLITE	PACO457	AC	2	✓

✓ = Compatible

11.5W LED T8 U-Bend Direct Fit (LED11.5WT8F/Ux/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A3278MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N	?	Parallel	✓	✗	✓	✓
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N	?	Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N	?	Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H	?	Parallel	✗	✗	✗	✗
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 U-Bend Direct Fit (LED11.5WT8F/Ux/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✗	✗	✗	✗
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	H	0.88	n.a	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	n.a	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	H	0.78	n.a	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	n.a	NA	NA	✓	✓
General Electric	GE232MAX347-N	IS	2	N	1.02	Parallel	NA	P,T(347V)	NA	(347V)
General Electric	GE232MAX-G-L	IS	2			Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	H	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3			Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✗	NA	✗	NA
General Electric	GE432MAX347-H	IS	2			Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MV-N-42T	IS	4	H	0.93	Parallel	✓	✓	✓	✓
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	H	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/L/MV/HE	IS	4	H	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	H	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	✓	NA
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✗	✗	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	P,T	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✗	✗	✗	✗
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	H	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 U-Bend Direct Fit (LED11.5WT8F/Ux/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✗	✗	✗	✗
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	L	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	H	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	H	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	H	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1			NA	NA	NA	✓	P,T
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	P	✗	P
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH HT-1	IS	4	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	1.2	Parallel	✗	NA	(347V)	NA
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2	/	/	Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	H	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	T	✓	✓
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	N	0.78	Parallel	NA	✗	NA	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2			Parallel	✓	NA	✓	NA
Philips-Advance	ICN-132-MC	IS	1			NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	H	0.91	n.a	NA	NA	✗	✗
Philips-Advance	ICN-2P16-TLED-N	IS	2			Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	n.a	NA	NA	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3P32HL-90C-SC	IS	3			Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3P32-N	IS	3	H	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4			Parallel	✓	✓	✗	✗
Philips-Advance	IOPA-1P32-N	IS	1	H	0.88	n.a	NA	NA	✗	✗
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-3P32-N	IS	3	H	0.86	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-HL-SC	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	✗	NA	✓	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✗	NA	✗	NA
Philips-Advance	VEL-2P32-RH-TP	IS	2			Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC	IS	2	N	0.88	Parallel	NA	✗	NA	✗
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 U-Bend Direct Fit (LED11.5WT8F/Ux/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✗	NA	✗	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	✓	NA
SUNPARK	120-3/32IS MPF	IS	3	H	0.88	Parallel	P,T	NA	P,T	NA
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.88	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	✗	✓	✓
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	✗	✓	✓
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✗	✗	✓
TCP	TCP3P32ISUNVH	IS	3			Parallel	✓	✓	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✗	✗	✗	✗
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	n.a	NA	NA	✓	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	✗	NA	✗	NA
Universal Lighting Technologies	B232I277RH-A	IS	4			Parallel	NA	T	NA	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IUNVHP-A	IS	3	H	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	H	0.88	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE (SC)	IS	2	N	0.87	Parallel	✓	✗	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	P	✓	✓
ANTRON ELECTRONICS	A3278MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N		Parallel	✓	✗	✓	✗
DAMAR	EL232DIM/120/277HF	DPS	2			Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H		Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N		Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H		Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N		Parallel	✓	T	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H		Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable



8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
General Electric	332MAX-H-42T	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	332MAX-H-84TS	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	H	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	NA	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	H	0.78	NA	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	NA	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE232MAX-G-L	IS	2			Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.91	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE232-MAX-H-42T	IS	2				✓	✓	✓	✓
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✓	P,T	✓	P,T
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✓	P	✓	✓
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	H	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✓	P,T	✓	T
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3			Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	P,T	✓	P,T
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432-MAX-H-42T	IS	4			Parallel	✓	✓	✓	✓
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MV-N-42T	IS	4	H	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432-MVPS-N	PS	4	N	0.88	Parallel	✓	T	✓	✗
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	H	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	0.88	Parallel	✓	✓	✓	✓
Halco	EP432IS/L/MV/HE	IS	4	H	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	H	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	P,T	NA
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✗	✓	✗
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PPRS/MV/SC/HE	PRS	4	N		Parallel	✓	✗	✓	✓
HOWARD INDUSTRIES	EPH2/321S/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	P,T	✓	✗
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N		NA	NA	NA	✓	NA
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	H	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	✗	✓	✗
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	P	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	L	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	P,T	✓	P,T
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	H	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	H	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	H	0.88	Parallel	✓	✓	✓	✓
OSRAM	QHE 2x32T8/347 PSN-SC	PRS	2			Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1			na	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	P,T	P,T	✗	P,T
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3			Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2			Parallel	✗	✗	✓	✓
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2			Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2			Parallel	P,T	NA	P,T	NA
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	H	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	P,T	✓	P,T

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88		X	X	X	X
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	N	0.78	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	X	X	X	X
Pacific Fluorescent	EB-232IS-120-RES	IS	2			Parallel	✓	NA	✓	NA
Philips-Advance	ICN-132-MC	IS	1			NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	H	0.91	NA	NA	NA	X	X
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	X	X	X	X
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	X	X	X	X
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	X	X	✓	✓
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	X	X	X	X
Philips-Advance	IOP-3P32HL-90C-SC	IS	3			Parallel	X	X	X	X
Philips-Advance	IOP-3P32-N	IS	3	H	0.87	Parallel	X	X	X	X
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4			Parallel	X	X	X	X
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4PSP32-SC Rev. A	PS	4	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-1P32-N	IS	1	H	0.88	NA	X	X	X	X
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	X	X	X	X
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	H	0.86	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-N	IS	4	N	0.87	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	X	X	X	X
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	X	X	X	X
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	X	X	X	X
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	✓	NA	X	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REZ-132-SC	DPS	1			NA	NA	NA	X	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N		Series	X	NA	X	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	X	NA	X	NA
Philips-Advance	VEL-2P32-RH-TP	IS	2			Parallel	NA	P,T	NA	P,T
Philips-Advance	VEL-2P32-SC (rev. G)	IS	2	N	0.88	Parallel	NA	P	NA	✓
Philips-Advance	VZT-4S32-HL	PS	4		1.18		X	X	X	X
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3				✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✓	NA	✓	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	P	✓	✓
Standard	E232T8IS120-277/NA/S	IS	2	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	P,T	NA
SUNPARK	120-3/32IS MPF	IS	3	H	0.88	Parallel	✓	NA	✓	NA
SUNPARK	LC 12011T	PS	1			NA	NA	NA	X	NA
SUNPARK	LC 12013T	PS	1			NA	NA	NA	X	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	NA	NA	✓	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	NA	NA	NA	✓	✓
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88		X	X	X	X

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-232PS3	RS	2	N	0.88		X	X	X	X
SUNPARK	U-232PS3-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.88	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	P	✓	P
Superior Life	70210	PS	2	N	0.88	Parallel	X	X	X	X
Superior Life	70211	PS	4	N	0.87	Parallel	X	X	X	X
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	X	✓	X
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVHE	IS	3	H	/	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	X	✓	X
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	X
TCP	E4P32ISUNVHE	IS	4	H	1.18	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✓	✓	X
TCP	TCP3P32ISUNVH	IS	3			Parallel	✓	X	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	NA	NA	NA	✓	X
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Universal Lighting Technologies	B232I277RH-A	IS	4			Parallel	NA	P,T	NA	T
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVLE-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✓	T	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	X	X	X	X
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✓	P,T	✓	P,T
Universal Lighting Technologies	B232PUNVHP-A	PS	2			Parallel	X	X	X	X
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IHRVHB-E	IS	3	H	/	Parallel	X	X	X	X
Universal Lighting Technologies	B332IUNVHP-A	IS	3	H	0.88	Parallel	✓	P	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	H	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE (SC)	IS	2	N	0.87	Parallel	✓	P	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3				X	X	X	X
WORK HORSE	WHS3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHS4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

8W LED T8 Direct Fit (LED8WT8/24/8xx-G7DR) - Emergency Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	N Lamp
ESPEN	VEM500DV(L)	AC	1	✓
ESPEN	VEM700DV(L)	AC	2	✓
EXITRONIX	XEB-7-B-LM	AC	1	✓
KEYSTONE	KT-EMRG-800-T5	AC	1	✓
KEYSTONE	KT-EMRG-1400	DC	2	✓
POWER SENTRY	PSQ500QD MVOLT	DC	1	✓
TAMLITE	BAL1400LPACTD	AC	2	✓
TAMLITE	PAC0457	AC	2	✓

✓ = Compatible

10.5W LED T8 Direct Fit (LED10.5WT8/36/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	P	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N		Parallel	✓	✗	✓	✗
DAMAR	EL232DIM/120/277HF	DPS	2	L		Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H		Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N		Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H		Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
General Electric	GE132MAX-G-N	IS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	NA	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	L	0.78	NA	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	NA	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MV-N-42T	IS	4	N	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/L/MV/HE	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable



10.5W LED T8 Direct Fit (LED10.5WT8/36/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	P	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	L	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM	QHE 2x32T8/347 PSN-SC	PRS	2	N	0.88	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1	N	0.88	na	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	P,T	P,T	✗	P,T
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3	H	1.15	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2	L	0.71	Parallel	✗	✗	✓	✓
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	1.20	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88		✗	✗	✗	✗
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	✗	✗	✗	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N		Parallel	✓	NA	✓	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	N	0.91	NA	NA	NA	✗	✗
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	✗	✗	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	✗	✗	✓	✓
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	✗	✗	✗	✗
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10.5W LED T8 Direct Fit (LED10.5WT8/36/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4	N	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-1P32-N	IS	1	N	0.88	NA	✗	✗	✗	✗
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4	N	0.92	Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	✗	✗	✗	✗
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	✗	✗	✗	✗
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	✗	✗	✗	✗
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REZ-132-SC	DPS	1	H	1	NA	NA	NA	✗	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N		Series	✗	NA	✗	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	✗	NA	✗	NA
Philips-Advance	VEL-2P32-RH-TP	IS	2	N		Parallel	NA	P,T	NA	P,T
Philips-Advance	VZT-4S32-HL	PS	4		1.18		✗	✗	✗	✗
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88		✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✓	NA	✓	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Standard Products	E232T8IS120-277/NA/S	IS	2	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	P,T	NA
SUNPARK	120-3/32IS MPF	IS	3	N	0.88	Parallel	✓	NA	✓	NA
SUNPARK	LC 12011T	PS	1	H		NA	NA	NA	✗	NA
SUNPARK	LC 12013T	PS	1	H		NA	NA	NA	✗	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	NA	NA	✓	NA
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88		✗	✗	✗	✗
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15		✗	✗	✗	✗
SUNPARK	U-232PS3	RS	2	N	0.88		✗	✗	✗	✗
SUNPARK	U-232PS3-HBF	RS	2	H	1.15		✗	✗	✗	✗
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Superior Life	70210	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Superior Life	70211	PS	4	N	0.87	Parallel	✗	✗	✗	✗
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	✗	✓	✗
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVHE	IS	4	H	1.18	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✓	✓	✗
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHP-A	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	P	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

10.5W LED T8 Direct Fit (LED10.5WT8/36/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	1.15	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3	H			✗	✗	✗	✗
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N		Parallel	✓	✗	✓	✓
DAMAR	EL232DIM/120/277HF	DPS	2			Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H		Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N		Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H		Parallel	✓	P	✓	P
DAMAR	EL432-120/277HF(3093B)	IS	4	N		Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H		Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
General Electric	332MAX-H-42T	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	332MAX-H-84TS	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	H	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	NA	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	H	0.78	NA	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	NA	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE232MAX347-N	IS	2	N	1.02	Parallel	NA	P,T (347V)	NA	✗
General Electric	GE232MAX-G-L	IS	2			Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.91	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✗	✗	✗	✗
General Electric	GE232-MAX-H-42T	IS	2				✗	✗	✗	✗
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✓	P,T	✓	✓
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
General Electric	GE332MAX-G-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	H	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✓	P,T	✓	✓
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3			Parallel	✓	P	✓	✓
General Electric	GE332MV-N	IS	3	H	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432-MAX-H-42T	IS	4			Parallel	✓	✓	✓	✓
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	H	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MV-N-42T	IS	4	H	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432-MVPS-N	PS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	H	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	0.88	Parallel	✓	✓	✓	✓
Halco	EP432IS/L/MV/HE	IS	4	H	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	H	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✗	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	P	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	✓	NA
HOWARD INDUSTRIES	E2/32IS-277	IS	2			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/208-277	IS	3			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PRS/MV/SC/HE	PRS	4	N		Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✓	P	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	P,T	✓	✗
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N		NA	NA	NA	✓	NA
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	H	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	P	✓	P
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	L	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	H	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	H	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	H	0.88	Parallel	✓	✓	✓	✓
motorola	M2-IN-T8-GP-D-277	IS	2	/	/	Parallel	NA	✓	NA	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
motorola	M3-IN-T8-GP-A-277	IS	3	/	/	Parallel	NA	✓	NA	✓
OSRAM	QHE 2x32T8/347 PSN-SC	PRS	2			Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1			NA	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1			NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	P,T	P,T	✗	P,T
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3			Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	✓	✓	✗	✓
OSRAM SYLVANIA	QHE5 2x32T8/UNV PSL-SC	PRS	2			Parallel	✗	✗	✓	✓
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2			Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2			Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	H	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	P,T	✓	✓
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88		✗	✗	✗	✗
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	N	0.78	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	✗	✗	✗	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2			Parallel	✓	NA	✓	NA
Philips-Advance	GOP-2PS-32-SC	DPS	2			Parallel	NA	(347V)	NA	(347V)
Philips-Advance	GOPA-4P32-SC	IS	4	-	-	Parallel	(347V)	NA	(347V)	NA
Philips-Advance	ICN-132-MC	IS	1			NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	H	0.91	NA	NA	NA	✗	✗
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2			Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	✗	✗	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	✗	✗	✓	✓
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	✗	✗	✗	✗
Philips-Advance	IOP-3P32HL-90C-SC	IS	3			Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3P32-N	IS	3	H	0.87	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	IOP-4P32-SC	IS	4			Parallel	X	X	X	X
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4PSP32-SC Rev. A	PS	4	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-1P32-N	IS	1	H	0.88	NA	X	X	X	X
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	X	X	X	X
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	X	X	X	X
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	H	0.86	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-LW-N	IS	4	L	0.76	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-N	IS	4	N	0.87	Parallel	X	X	X	X
Philips-Advance	IOPA-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	X	X	X	X
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	X	X	X	X
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	X	X	X	X
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REZ-132-SC	DPS	1			NA	NA	NA	X	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N		Series	X	NA	X	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	X	NA	X	NA
Philips-Advance	VCN-2P32-SC	IS	2			Parallel	NA	✓	NA	✓
Philips-Advance	VCN-4P32-SC	IS	4			Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-RH-TP	IS	2			Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. D)	IS	2	N	0.88	Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. G)	IS	2	N	0.88	Parallel	NA	P	NA	✓
Philips-Advance	VZT-4S32-HL	PS	4		1.18		X	X	X	X
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3				✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✓	NA	✓	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Robertson	ISU232T8HEMV	IS	2			Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Standard Products	E232T8IS120-277/NA/S	IS	2		0.87		✓	✓	✓	✓
Standard Products	E232T8IS120-277/NA/S	IS	2	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	T	NA
SUNPARK	120-3/32IS MPF	IS	3	H	0.88	Parallel	✓	NA	✓	NA
SUNPARK	LC 12011T	PS	1			NA	NA	NA	✓	NA
SUNPARK	LC 12013T	PS	1			NA	NA	NA	X	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	✓	NA	✓	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	NA	NA	NA	✓	✓
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88		X	X	✓	✓
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-232PS3	RS	2	N	0.88		X	X	X	X
SUNPARK	U-232PS3-HBF	RS	2	H	1.15		X	X	X	X
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.88	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	P	✓	✓
Superior Life	70210	PS	2	N	0.88	Parallel	X	X	X	X
Superior Life	70211	PS	4	N	0.87	Parallel	X	X	X	X
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	X	✓	✓
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVHE	IS	3	H	/	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	X	✓	✓
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✗	✓	✗
TCP	TCP3P32ISUNVH	IS	3			Parallel	✓	✓	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	NA	NA	NA	✓	✗
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Universal Lighting Technologies	B232I277RH-A	IS	4			Parallel	NA	P,T	NA	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✓	P,T	✓	✓
Universal Lighting Technologies	B232PUNVHP-A	PS	2			Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IHRVHB-E	IS	3	H	/	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B332IUNVHP-A	IS	3	H	0.88	Parallel	✓	P	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4			Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	H	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE(SC)	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3				✗	✗	✗	✗
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR) - Emergency Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	N Lamp	N-1 Lamp
BODINE	B50ST	DC	2	✓	✓
ESPEN	VEM500DV(L)	AC	1	✓	
ESPEN	VEM700DV(L)	AC	2	✓	
EXITRONIX	XEB-7-B-LM	AC	1	✓	
KEYSTONE	KT-EMRG-800-T5	AC	1	✓	
KEYSTONE	KT-EMRG-1400	DC	2	✓	
POWER SENTRY	PSQ500QD MVOLT	DC	1	✓	
TAMLITE	BAL1400LPACTD	AC	2	✓	
TAMLITE	PAC0457	AC	2	✓	

✓ = Compatible

15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A3278MICLO	IS	2	L	0.78	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N	?	Parallel	✓	✗	✓	✓
DAMAR	EL232DIM/120/277HF	DPS	2	L	?	Series	✗	✗	✗	✗
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL332-120/277HF(3654C)	IS	3	N	?	Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H	?	Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N	?	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H	?	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-2x32T8-UNV-PS	PS	2	N	0.88	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	0.87	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-PS	PS	3	N	0.88	Series	✗	✗	✗	✗
EIKO	PM-3X32T8-UNV-PS-H	PS	3	H	1.18	Series	✗	✗	✗	✗
EIKO	PM-4X32T8-UNV-IS	IS	4	N	0.88	Parallel	✓	✓	✓	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPLE	IS	2	L	0.77	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHRPHT3-AB	DPS	2	H	1.20	Series	✗	✗	✗	✗
General Electric	332MAX-H-42T	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	332MAX-H-84TS	IS	3	H	/	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	1.18	NA	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	L	0.78	NA	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	0.88	NA	NA	NA	✓	✓
General Electric	GE132MVPSN-V03	DPS	1	N	0.88	NA	NA	NA	✗	✗
General Electric	GE232MAX347-N	IS	2	H	1.02	Parallel	NA	(347V)	NA	(347V)
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	1.15	Parallel	✓	T	✓	✓
General Electric	GE-232-MAX-H-42T	IS	2	H	/	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-L/ULTRA	IS	2	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MAXP90-V60	IS	2	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE232MVPS-L-S30	DPS	2	N	0.96	Parallel	✗	✗	✗	✗
General Electric	GE232-MVPS-N	PS	2	N	0.88	Parallel	✗	✗	✗	✗
General Electric	GE-232-MV-PS-N	PS	2	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP90-V60	IS	3	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE332MAXP-H/ULTRA	IS	3	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-L/ULTRA	IS	3	L	0.77	Parallel	✓	✓	✓	✓
General Electric	GE332MV-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE-332-MVPS-N	PS	3	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE332MVPSN-V03	DPS	3	N	0.98	Parallel	✗	✗	✗	✗
General Electric	GE432-120-RES	IS	4	N	0.83	Parallel	✓	NA	✓	NA
General Electric	GE432MAX347-H	IS	2	H	1.18	Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX347-N	IS	4	N	0.94	Parallel	NA	(347V)	NA	(347V)
General Electric	GE432MAX90-S60	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	1.18	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-H-42T	IS	4	H	/	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-L/ULTRA	IS	4	L	0.78	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	N	0.88	Parallel	✓	✓	✓	✓
General Electric	GE432MAXP90-S60	IS	4	H	1.18	Parallel	✗	✗	✗	✗
General Electric	GE432MV-N-42T	IS	4	N	0.93	Parallel	✓	✓	✓	✓
General Electric	GE432-MVPS-N	PS	4	N	0.88	Parallel	✗	✗	✗	✗
General Electric	GE432MVPS-N-V03	PS	4	N	0.90	Parallel	✗	✗	✗	✗
Halco	EP232IS/H/MV/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable



15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Halco	EP332IS/MV/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	0.88	Parallel	✗	✗	✗	✗
Halco	EP432IS/L/MV/HE	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HATCH	HL232BIS/UV/HE/W	IS	2	N	0.9	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	0.9	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	0.85	Parallel	P,T	NA	✓	NA
HOWARD INDUSTRIES	E2/32IS-277	IS	2			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	0.89	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32PRS/MV/MC/HE	PRS	2	N	0.86	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/208-277	IS	3			Parallel	NA	✗	NA	✗
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32PPRS/MV/SC/HE	PRS	4	N	?	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH2/321S/MV/MC/HE	IS	2	H	1.18	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	0.91	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	1.16	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	0.78	Parallel	✓	P,T	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-132-1-TP-FC	RS	1	N		NA	NA	NA	✗	NA
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	0.88	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	0.80	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	1.18	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	0.87	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEL/SC	IS	2	N	0.83	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
MAXLITE	MLEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	L	0.77	Parallel	✓	✓	✓	✓
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
motorola	M2-IN-T8-GP-D-277	IS	2	/	/	Parallel	NA	✓	NA	✓
motorola	M3-IN-T8-GP-A-277	IS	3	/	/	Parallel	NA	✓	NA	✓
OSRAM	QHE 2x32T8/347 PSN-SC	PRS	2	N	0.88	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV DIM-TC	DPS	1	N	0.88	na	NA	NA	✗	✗
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1	H	1.20	NA	NA	NA	✓	P,T
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	0.88	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/347 ISN-SC	IS	2	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 2X32T8/UNV DIM-TC	PRS	2	N	0.88	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H		Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	1.20	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSH-HT	PRS	2	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV PSN-MC	PRS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISH-SC	IS	3	H	1.18	Parallel	✗	P	✗	P
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSH-HT-SC	DPS	3	H	1.15	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV PSN-SC	PRS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/347 ISN-SC	IS	4	H	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH HT-1	IS	4	H	1.18	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H		Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
OSRAM SYLVANIA	QHE 4X32T8/UNV PSN-SC	PRS	4	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV PSX-SC	PRS	4	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QHES 2x32T8/UNV PSL-SC	PRS	2	L	0.71	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QT 2x32 T8/277 ISN-SC	IS	2				NA	✓	NA	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	1.20	Parallel	NA	NA	NA	(347V)
OSRAM SYLVANIA	QT 4x32 T8/347 ISN-SC	IS	4	N	/	Parallel	NA	(347V)	NA	(347V)
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2	N	0.9	Parallel	P,T	NA	✓	NA
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV PSX-SC	PRS	3	L	0.71	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	0.88	Parallel	✓	T	✓	✓
OSRAM SYLVANIA	QTP2x32T8/UNV DIM-TC	DPS	2	N	0.88	?	✗	✗	✗	✗
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	L	0.78	Parallel	NA	✗	NA	✗
OSRAM SYLVANIA	QTP3X32T8/UNV PSN-SC	PRS	3	N	0.88	Series	✗	✗	✗	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N		Parallel	✓	NA	✓	NA
Philips-Advance	GOP-2PS-32-SC	DPS	2			Parallel	NA	(347V)	NA	(347V)
Philips-Advance	GOPA-2P32-N	IS	2	N	/	Parallel	NA	(347V)	NA	(347V)
Philips-Advance	GOPA-4P32-SC	IS	4	-	-	Parallel	(347V)	NA	(347V)	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	✓	✓
Philips-Advance	ICN-1P32-N	IS	1	N	0.91	NA	NA	NA	✗	✗
Philips-Advance	ICN-2P16-TLED-N	IS	2	N		Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2			Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	0.88	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-4P16-TLED-N	IS	4	N		Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-N	IS	4	N	0.90	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-SC	IS	4			Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	0.89	NA	✗	✗	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-LW-N	PS	2	L	0.71	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2PSP32-N	PS	2	N	0.94	Parallel	✗	✗	✓	✓
Philips-Advance	IOP-2S32-SC	PS	2	N	0.87	Series	✗	✗	✗	✗
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-3P32-N	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-LW-SC	PS	3	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3PSP32-SC	PS	3	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	1.18	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-LW-N	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-SC	IS	4	N	0.87	Parallel	✓	✓	✗	✗
Philips-Advance	IOP-4PSP32-LW-SC	PS	4	L	0.69	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4PSP32-SC Rev. A	PS	4	N	0.89	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-1P32-N	IS	1	N	0.88	NA	✗	✗	✗	✗
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	0.76	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-3P32-LW-SC	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-N	IS	3	N	0.86	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-HL-SC	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-N	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4	N	0.92	Parallel	✓	✓	✓	✓
Philips-Advance	IZT-2PSP32-SC	DPS	2	N	1.00	Parallel	✗	✗	✗	✗
Philips-Advance	IZT-2S32-SC	DPS	2	N	1.00	Series	✗	✗	✗	✗
Philips-Advance	IZT-3PSP32-SC	DPS	3	H	1	Parallel	✗	✗	✗	✗
Philips-Advance	REB-2P32-SC	IS	2	N	0.88	Parallel	✗	NA	✓	NA
Philips-Advance	REB-4P32-SC	IS	4	N	0.81	Parallel	✓	NA	✓	NA
Philips-Advance	REZ-132-SC	DPS	1	H	1	NA	NA	NA	✗	NA
Philips-Advance	REZ-2S32-SC	DPS	2	N	?	Series	✗	NA	✗	NA
Philips-Advance	REZ-3S32-SC	DPS	3	N	0.97	Series	✗	NA	✗	NA
Philips-Advance	VCN-2P32-SC	IS	2			Parallel	NA	✓	NA	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Philips-Advance	VCN-4P32-SC	IS	4			Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-RH-TP	IS	2	N		Parallel	NA	P,T	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. D)	IS	2	N	0.88	Parallel	NA	✓	NA	✓
Philips-Advance	VEL-2P32-SC (Rev. G)	IS	2	N	0.88	Parallel	NA	✗	NA	✗
Philips-Advance	VZT-4S32-HL	PS	4		1.18		✗	✗	✗	✗
PLUSRITE	BAF232IS/MV	IS	2	N	0.89	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	0.78	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	0.88	?	✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	0.78	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	0.78	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	0.87	Parallel	✓	NA	✓	NA
ProLume	EP232IS/L/MV/SL	IS	2	L	0.78	Parallel	✓	✓	✓	✓
Robertson	ISU232T8HEMV	IS	2			Parallel	✓	✓	✓	✓
SOLA	E-758-U-232-MC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Standard Products	E232T8IS120-277/N/AS	IS	2		0.87		✓	✓	✓	✓
Standard Products	E232T8IS120-277/N/AS	IS	2	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	0.88	NA	NA	NA	✓	NA
SUNPARK	120-3/32IS MPF	IS	3	N	0.88	Parallel	✓	NA	✓	NA
SUNPARK	LC 12011T	PS	1	H	?	NA	NA	NA	✓	NA
SUNPARK	LC 12013T	PS	1	H	?	NA	NA	NA	✗	NA
SUNPARK	SL15T	PS	2	N	0.88	Series	P,T	NA	P,T	NA
SUNPARK	U-1/32PSE	PS	1	N	0.88	NA	NA	NA	✗	✗
SUNPARK	U-2/32IS HBF	IS	2	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	0.78	Parallel	✓	✓	✓	✓
SUNPARK	U-2/32PSE	RS	2	N	0.88	?	✗	✗	✗	✗
SUNPARK	U-2/32PSE-HBF	RS	2	H	1.15	?	✗	✗	✗	✗
SUNPARK	U-232PS3	RS	2	N	0.88	?	✗	✗	✗	✗
SUNPARK	U-232PS3-HBF	RS	2	H	1.15	?	✗	✗	✗	✗
SUNPARK	U-3/32ISE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE-HBF	IS	3	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	1.18	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HP,F	IS	4	N	0.88	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	0.88	Parallel	✓	✗	✓	✓
Superior Life	70210	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Superior Life	70211	PS	4	N	0.87	Parallel	✗	✗	✗	✗
TCP	E2P32ISUNVHE	IS	2	H	1.18	Parallel	✓	✗	✓	✓
TCP	E3P32ISUNVE	IS	3	N	0.88	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVHE	IS	3	H	/	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	0.78	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVE	IS	4	N	0.88	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	0.78	Parallel	✓	✗	✓	✓
TCP	TCP3P32ISUNVH	IS	3	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	1.18	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	0.88	NA	NA	NA	✓	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	0.88	Parallel	✓	NA	✓	NA
Universal Lighting Technologies	B232I277RH-A	IS	4	H	1.09	Parallel	NA	T	NA	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PU104S50A	PRS	2	H	1.04	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B232PUNVHE-B	PS	2	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232PUNVHP-A	PS	2	N	0.88	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IHRVHB-E	IS	3	H	/	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332PUNVHEH-A	PS	3	H	1.18	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	1.15	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Direct Fit (LED15WT8/48/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
Universal Lighting Technologies	B4321UNVHP-A	IS	4	N	0.88	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432PUNVHE-A	PS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE (SC)	IS	2	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	0.87	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	0.77	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	0.87	Parallel	✓	✓	✓	✓
Watran	DBG32N-MV-TP-PS-HL	PS	3	H	?	?	✗	✗	✗	✗
WORK HORSE	WHSG3-UNV-T8-IS	IS	3	N	0.99	Parallel	✓	✓	✓	✓
WORK HORSE	WHSG4-UNV-T8-IS	IS	4	N	0.96	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

11.5W LED T8 Direct Fit (LED11.5WT8/48/8xx-G7DR) - Emergency Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	N Lamp	N-1 Lamp
BODINE	B50ST	DC	2	✓	✗
ESPEN	VEM500DV(L)	AC	1	✓	
ESPEN	VEM700DV(L)	AC	2	✓	
EXITRONIX	XEB-7-B-LM	AC	1	✓	
KEYSTONE	KT-EMRG-800-T5	AC	1	✓	
KEYSTONE	KT-EMRG-1400	DC	2	✓	
POWER SENTRY	PSQ500QD MVOLT	DC	1	✓	
TAMLITE	BAL1400LPACTD	AC	2	✓	
TAMLITE	PAC0457	AC	2	✓	

✓ = Compatible ✗ = Incompatible

14.5W LED T8 Direct Fit (Builder's Best: BB-14.5WT8/48/8xx-G1)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp		3Lamp		4Lamp	
					Type	Value		120	277	120	277	120	277	120	277
ADVANCE	VEL-2P32-SC	IS	277	2	N	0.87	Parallel	NA	✓	NA	✓	NA	NA	NA	NA
DAMAR	1688B	IS	120-277	2			Parallel	✓	✓	✓	✓	NA	NA	NA	NA
EIKO Global	PM-2x32T8-UNV-IS-L	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
EIKO Global	PM-3x32T8-UNV-IS-H	IS	120-277	3	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
EIKO Global	PM-3x32T8-UNV-IS-L	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
EIKO Global	PM-4x32T8-UNV-IS	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
EIKO Global	PM-4x32T8-UNV-IS-L	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
ESPEN	VE232MVHIPE	IS	120-277	2	N	0.89	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
ESPEN	VE232MVHIPL	IS	120-277	2			Parallel	✓	✓	✓	✓	NA	NA	NA	NA
FULHAM	WHCG4-120-T8-IS	IS	120	4	N	0.99	Parallel	✓	NA	✓	NA	✓	NA	✓	NA
FULHAM	WHSG3-UNV-T8-IS	IS	120-277	3	N	0.99	Parallel	✓	✓	✓	✓	✓	✓	✓	NA
FULHAM	WHSG4-UNV-T8-IS	IS	120-277	4	N	0.96	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
FUSION	FB232MVE	IS	120-277	2			Parallel	✓	✓	✓	✓	NA	NA	NA	NA
FUSION	FB232MVE-HE	IS	120-277	2			Parallel	✓	✓	✓	✓	NA	NA	NA	NA
FUSION	FB332MVE	IS	120-277	3			Parallel	✓	✓	✓	✓	✓	✓	✓	NA
FUSION	FB432MVE	IS	120-277	4			Parallel	✓	✓	✓	✓	✓	✓	✓	✓
FUSION	FB432MVE-HE	IS	120-277	4			Parallel	✓	✓	✓	✓	✓	✓	✓	✓
GE	GE132MAX-H/ULTRA	IS	120-277	1	H	1.18	n.a	✓	✓	NA	NA	NA	NA	NA	NA
GE	GE132MAX-L/ULTRA	IS	120-277	1	L	0.77	n.a	✓	✓	NA	NA	NA	NA	NA	NA
GE	GE132MAX-N/ULTRA	IS	120-277	1	N	0.87	n.a	✓	✓	NA	NA	NA	NA	NA	NA
GE	GE132MAXP-L/ULTRA	IS	120-277	1	L	0.78	n.a	✓	✓	NA	NA	NA	NA	NA	NA
GE	GE132MAXP-N/ULTRA	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
GE	GE232MAX-G-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE232MAX-G-N-DIY8	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE-232-MAX-H/ULTRA	IS	120-277	2	H	1.18	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE232MAX-N/ULTRA	IS	120-277	2	N	0.87	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE232MAXP-L/ULTRA	IS	120-277	2	L	0.77	Parallel	✓	✓	✗	✗	NA	NA	NA	NA
GE	GE232MAXP-N/ULTRA	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE-232-MV-N-DIY	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
GE	GE-332-120-N	IS	120	3	N	0.9	Parallel	✗	NA	✗	NA	NA	NA	NA	NA

✓ = Compatible ✗ = Incompatible NA = Not applicable

14.5W LED T8 Direct Fit (Builder's Best: BB-14.5WT8/48/8xx-G1)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp		3Lamp		4Lamp	
					Type	Value		120	277	120	277	120	277	120	277
GE	GE332MAX90-V60	IS	120-277	3			Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MAX-G-N	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MAX-G-N-DIY8	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MAX-N/ULTRA	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MAXP-H/ULTRA	IS	120-277	3	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MAXP-L/ULTRA	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✗	✗	NA	NA
GE	GE332MAXP-N/ULTRA	IS	120-277	3	N	0.89	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE332MV-N	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
GE	GE432-120RESDIYB	IS	120	4	N	0.83	Parallel	✗	NA	✗	NA	✗	NA	✗	NA
GE	GE432MAX90-S60	IS	120-277	4			Parallel	✓	✓	✓	✓	✓	✓	✓	✓
GE	GE432MAX-G-N	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
GE	GE432MAXP-H/ULTRA	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
GE	GE432MAXP-L/ULTRA	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✗	✗	✗	✗
GE	GE432MAXP-N/ULTRA	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
GE	GE-432-MV-N-DIY	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Halco Lighting	EP232IS/H/MV/HE	IS	120-277	2	H	1.18	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Halco Lighting	EP232IS/L/MV/HE	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Halco Lighting	EP332IS/L/MV/HE	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Halco Lighting	EP332IS/MV/HE	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Halco Lighting	EP432IS/120/MC	IS	120	4	N	0.88	Parallel	✓	NA	✓	NA	✗	NA	✗	NA
Halco Lighting	EP432IS/L/MV/HE	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Halco Lighting	EP432IS/MV/HE	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✗	✗
Hatch	HL232BIS/UV/HE/W	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Hatch	HL432BIS/UV/HE/W	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	120	2	N	0.88	Parallel	✓	NA	✓	NA	NA	NA	NA	NA
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	120-277	2	N	0.89	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	120-277	3	N	0.87	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✗	✓
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	120-277	2	H	1.18	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	120-277	3	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
HOWARD INDUSTRIES	EPH4/32IS/MV/MC/HE	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✗	✓	✗	✓
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
HOWARD INDUSTRIES	EPL3/32IS/MV/MC/HE	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
HUAFENG	ENI-T8-32-P25C-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
KEYSTONE	CAT.NO.KTEB-232-UV-IS-N-P	IS	120-277	2	N	0.9	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
KEYSTONE	KTEB-332-UV-IS-N-P	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	120	4	N	0.88	Parallel	✓	NA	✓	NA	✓	NA	✓	NA
KEYSTONE	KTEB-432-UV-IS-N-P	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Luna Pro	4KGH1 EB-432IS-120	IS	120	4	N	0.88	Parallel	✓	NA	✓	NA	✓	NA	✓	NA
MAXLITE	MLEU324HE/SC	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
MAXLITE	SKEU323L/SC	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
MAXLITE	SKEU324HE/SC	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	GOPA-2P32-SC	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	GOPA-4P32-LW-SC	IS	120-277	4	N	0.88	Parallel	✗	✗	✗	✗	✗	✗	✗	✗
Philips ADVANCE	GOPA-4P32-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	ICN-1P32-N	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
Philips ADVANCE	ICN2P16TLEDN	IS	120-277	2	N	0.88	n.a	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	ICN-2P32-N	IS	120-277	2	N	0.88	n.a	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	ICN3P16TLEDN	IS	120-277	3	N	0.88	n.a	✓	✓	✓	✓	✓	✓	NA	NA
Philips ADVANCE	ICN-3P32-N	IS	120-277	3	N	0.88	n.a	✓	✓	✓	✓	✓	✓	NA	NA
Philips ADVANCE	ICN-3P32-N	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Philips ADVANCE	ICN-3P32-SC	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Philips ADVANCE	ICN4P16HLTLEDSC	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	ICN4P16TLEDN	IS	120-277	4	N	0.88	n.a	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	ICN-4P32-N	IS	120-277	4	N	0.88	n.a	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	ICN-4P32-N	IS	120-277	4	N	0.9	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	IOP-2P32-HL-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	IOP-2P32-LW-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✗	✗	NA	NA	NA	NA
Philips ADVANCE	IOP-2P32-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	IOP-4P32-HL-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	IOP-4P32-N	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible NA = Not applicable

14.5W LED T8 Direct Fit (Builder's Best: BB-14.5WT8/48/8xx-G1)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp		3Lamp		4Lamp	
					Type	Value		120	277	120	277	120	277	120	277
Philips ADVANCE	IOPA-1P32-HL-N	IS	120-277	1	N	0.88	Parallel	✓	✓	NA	NA	NA	NA	NA	NA
Philips ADVANCE	IOPA-1P32-LW-N	IS	120-277	1	N	0.88	Parallel	✓	✓	NA	NA	NA	NA	NA	NA
Philips ADVANCE	IOPA-1P32-N	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
Philips ADVANCE	IOPA-2P32-HL-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	IOPA-2P32-LW-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	IOPA-2P32-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	IOPA-3P32-LW-N	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✗	✗	NA	NA
Philips ADVANCE	IOPA-3P32-N	IS	120-277	3	N	0.86	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Philips ADVANCE	IOPA-4P32-HL-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	IOPA-4P32-LW-N	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	IOPA-4P32-N	IS	120-277	4	N	0.86	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Philips ADVANCE	IOPA-4P32-SC	IS	120-277	4	N	0.88	Parallel	✗	✗	✗	✗	✗	✗	✗	✗
Philips ADVANCE	IZT-2P16-TLED-SC	IS	120-277	2	N	0.88	n.a	✓	✓	✓	✓	NA	NA	NA	NA
Philips ADVANCE	REB-2P32-N	IS	120	2	N	0.88	Parallel	✓	NA	✓	NA	NA	NA	NA	NA
Philips ADVANCE	REB-4P32-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Plusrite	BAF232IS/MV	IS	120-277	2	N	0.89	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Plusrite	BAF332IS/MV	IS	120-277	3	N	0.89	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Robertson	ISU232T8120	IS	120	2	N	0.88	Parallel	✓	NA	✓	NA	NA	NA	NA	NA
SOLA	E-758-U-232-MC	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Sunpark	120-1/32IS	IS	120	1	N	0.88	n.a	✓	NA	NA	NA	NA	NA	NA	NA
Sunpark	120-3/32IS MPF	IS	120	2	N	0.88	Parallel	✓	NA	✓	NA	NA	NA	NA	NA
Sunpark	U-2/32ISE-LBF	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Sunpark	U-3/32IS HPF	IS	120-277	3	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Sunpark	U-3/32ISE-HBF	IS	120-277	3	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Sunpark	U-4/32IS HPF	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Sunpark	U-4/32ISE-LBF	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Sunpark	U-4/32IS-HBF	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Superior Life	70201	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QHE 1x32T8/UNV ISH-SC	IS	120-277	1	H	1.18	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QHE 1x32T8/UNV ISN-SC-1	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QHE 1X32T8/UNV ISH HT SC	IS	120-277	1	H	1.18	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QHE 1x32T8/UNV ISL-SC	IS	120-277	1	L	0.78	n.a	✗	✗	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QHE 1x32T8/UNV ISN-SC	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QHE 2x32T8/UNV ISH-SC	IS	120-277	2	H	1.18	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QHE 2x32T8/UNV ISL-SC	IS	120-277	2	L	0.78	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QHE 2X32T8/UNV ISH HT SC	IS	120-277	2	H	1.18	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QHE 2X32T8/UNV ISN-SC	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QHE 3x32T8/UNV ISL-SC	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
SYLVANIA Osram	QHE 3x32T8/UNV ISN-SC	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
SYLVANIA Osram	QHE 3x32T8/UNV ISL-SC-1	IS	120-277	3	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
SYLVANIA Osram	QHE 3x32T8/UNV ISN-SC-1	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
SYLVANIA Osram	QHE 4x32T8/UNV ISH-HT-1	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✗	✗	✗	✗
SYLVANIA Osram	QHE 4x32T8/UNV ISH-SC	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QHE 4x32T8/UNV ISL-SC	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QHE 4X32T8/347 ISN-SC	IS	347	4	N	0.88	Parallel	347v	347v	347v	347v	347v	347v	347v	347v
SYLVANIA Osram	QHE 4x32T8/UNV ISH	IS	120-277	4	H	1.18	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QHE 4x32T8/UNV ISL-SC-1	IS	120-277	4	L	0.78	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QHE 4X32T8/UNV ISN-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QHE 4x32T8/UNV ISN-SC-1	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
SYLVANIA Osram	QTP 1x32T8/UNV ISL-SC	IS	120-277	1	L	0.78	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QTP 1X32T8/UNV ISN-SC	IS	120-277	1	N	0.88	n.a	✓	✓	NA	NA	NA	NA	NA	NA
SYLVANIA Osram	QTP 2X32T8/347 ISN-SC	IS	347	2	N	0.88	Parallel	347v	347v	347v	347v	NA	NA	NA	NA
SYLVANIA Osram	QTP 2X32T8/UNV ISN-SC	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
SYLVANIA Osram	QTP 3X32T8/UNV ISN-SC	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
SYLVANIA Osram	QTP 4X32T8/UNV ISN-SC	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Ultra Save	UT232347	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Ultra Save	UT432347	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Universal/TRIAD	B132IUNVHP-N	IS	120-277	1	N	0.88	n.a	✓	✗	NA	NA	NA	NA	NA	NA
Universal/TRIAD	B232IUNVEL-A	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Universal/TRIAD	B232IUNVEL-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Universal/TRIAD	B232IUNVHE-A	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Universal/TRIAD	B232IUNVHEH-A	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Universal/TRIAD	B232IUNVHE-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA

✓ = Compatible ✗ = Incompatible NA = Not applicable

14.5W LED T8 Direct Fit (Builder's Best: BB-14.5WT8/48/8xx-G1)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp		3Lamp		4Lamp	
					Type	Value		120	277	120	277	120	277	120	277
Universal/TRIAD	B232IUNVHP-N	IS	120-277	2	N	0.88	Parallel	✓	✓	✓	✓	NA	NA	NA	NA
Universal/TRIAD	B332IUNVEL-A	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Universal/TRIAD	B332IUNVHE-A	IS	120-277	3	N	0.95 ~ 0.99	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Universal/TRIAD	B332IUNVHL-A	IS	120-277	3	N	0.88	Parallel	✗	✗	✗	✗	✗	✗	NA	NA
Universal/TRIAD	B332IUNVHP-A	IS	120-277	3	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	NA	NA
Universal/TRIAD	B432I120RES-A	IS	120	4	N	0.88	Parallel	✓	NA	✓	NA	✓	NA	✓	NA
Universal/TRIAD	B432IUNVEL-A	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Universal/TRIAD	B432IUNVHE-A	IS	120-277	4	N	0.9	Parallel	✓	✓	✓	✓	✓	✓	✓	✓
Universal/TRIAD	B432IUNVHP-A	IS	120-277	4	N	0.88	Parallel	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible NA = Not applicable

T8 TYPE A+B LAMPS

12W LED T8 Dual Mode (LED12WT8/48/8xx-G9DM)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		N			N-1		
					Type	Value	120	277	347	120	277	347
ADVANCE	GOPA-2P32-SC	IS	347	2	N	0.88	NT	NT	✓	NT	NT	✓
ADVANCE	GOPA-4P32-LW-SC	IS	347	4	N	0.88	NT	NT	✗	NT	NT	✓
ADVANCE	GOPA-4P32-SC	IS	347	4	N	0.88	NT	NT	✓	NT	NT	✓
ADVANCE	ICN-1P32-N	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
ADVANCE	ICN2P16HLTLEDSC	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
ADVANCE	ICN2P16TLEDN	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	ICN-2P32-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	ICN3P16TLEDN	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	ICN-3P32-N	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	ICN4P16HLTLEDSC	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
ADVANCE	ICN4P16TLEDN	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	ICN-4P32-N	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOP-2P32-HL-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOP-2P32-LW-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOP-2P32-N	IS	120-277	2	N	0.88	✓	✗	NT	✓	✓	NT
ADVANCE	IOP-4P32-HL-SC	IS	120-277	4	N	0.88	✗	✗	NT	✗	✗	NT
ADVANCE	IOP-4P32-N	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-1P32-HL-N	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
ADVANCE	IOPA-1P32-LW-N	IS	120-277	1	N	0.88	✓	✗	NT	NT	NT	NT
ADVANCE	IOPA-1P32-N	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
ADVANCE	IOPA-2P32-HL-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-2P32-LW-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-2P32-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-3P32-LW-N	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-3P32-N	IS	120-277	3	N	0.86	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-4P32-HL-SC	IS	120-277	4	N	0.88	✓	✗	NT	✓	✗	NT
ADVANCE	IOPA-4P32-LW-N	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IOPA-4P32-N	IS	120-277	4	N	0.86	✓	✓	NT	✓	✓	NT
ADVANCE	IZT-2P16-TLED-SC	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	IZT-4P16-TLED-SC	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ADVANCE	REB-2P32-N	IS	120	2	N	0.88	✓	NT	NT	✓	NT	NT
ADVANCE	REB-2P32-SC	IS	120	2	N	0.88	✓	NT	NT	✓	NT	NT
ADVANCE	REB-4P32-SC	IS	120	4	N	0.88	✓	NT	NT	✓	NT	NT
ESPEN	VE232MVHIPE	IS	120-277	2	N	0.89	✓	✓	NT	✓	✓	NT
ESPEN	VE232MVHIPE	IS	120-277	2	N		✓	✓	NT	✓	✓	NT
FULHAM	WHSG3-UNV-T8-IS	IS	120-277	3	N	0.99	✓	✓	NT	✓	✓	NT
FULHAM	WHSG4-UNV-T8-IS	IS	120-277	4	N	0.96	✓	✓	NT	✓	✓	NT
GE	GE132MAX-HNTULTRA	IS	120-277	1	H	1.18	✗	✗	NT	NT	NT	NT
GE	GE132MAX-LNTULTRA	IS	120-277	1	L	0.77	✓	✓	NT	NT	NT	NT
GE	GE132MAX-NNTULTRA	IS	120-277	1	N	0.87	✗	✗	NT	NT	NT	NT
GE	GE132MAXP-LNTULTRA	IS	120-277	1	L	0.78	✓	✓	NT	NT	NT	NT

✓ = Compatible ✗ = Incompatible NA = Not applicable



12W LED T8 Dual Mode (LED12WT8/48/8xx-G9DM)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		N			N-1		
					Type	Value	120	277	347	120	277	347
GE	GE132MAXP-NNTULTRA	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
GE	GE232-120RES-DIY	IS	120	2	N	0.88	✗	NT	NT	✗	NT	NT
GE	GE232MAX-HNTULTRA	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
GE	GE232MAX-LNTULTRA	IS	120-277	2	L	0.77	✓	✓	NT	✓	✓	NT
GE	GE232MAX-NNTULTRA	IS	120-277	2	N	0.87	✓	✓	NT	✓	✓	NT
GE	GE232MAXP-LNTULTRA	IS	120-277	2	L	0.77	✓	✓	NT	✗	✗	NT
GE	GE232MAXP-NNTULTRA	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
GE	GE-232-MV-N-DIY	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
GE	GE332MAX-NNTULTRA	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
GE	GE332MAXP-HNTULTRA	IS	120-277	3	H	1.18	✓	✓	NT	✓	✓	NT
GE	GE332MAXP-LNTULTRA	IS	120-277	3	L	0.78	✓	✓	NT	✓	✓	NT
GE	GE332MAXP-NNTULTRA	IS	120-277	3	N	0.89	✓	✓	NT	✓	✓	NT
GE	GE432MAX347-N	IS	347	4	N	0.88	NT	NT	✓	NT	NT	✓
GE	GE432MAX-NNTULTRA	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
GE	GE432MAXP-HNTULTRA	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
GE	GE432MAXP-LNTULTRA	IS	120-277	4	L	0.78	✓	✓	NT	✓	✓	NT
GE	GE432MAXP-NNTULTRA	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
GE	GE-432-MV-N-DIY	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
HALCO	EP232ISNTHNTMVNTHE	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
HALCO	EP232ISNTLNTMVNTHE	IS	120-277	2	L	0.78	✓	✓	NT	✓	✓	NT
HALCO	EP332ISNTLNTMVNTHE	IS	120-277	3	L	0.78	✓	✓	NT	✓	✓	NT
HALCO	EP332ISNTMVNTHE	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
HALCO	EP432ISNTMVNTHE	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EP3NT32ISNTMVNTMCNTHE	IS	120-277	3	N	0.87	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EP4NT32ISNTMVNTMCNTHE	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPH2NT32ISNTMVNTMCNTHE	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPH3NT32ISNTMVNTMCNTHE	IS	120-277	3	H	1.18	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPH4NT32ISNTMVNTSCNTHE	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPL2NT32ISNTMVNTMCNTHE	IS	120-277	2	L	0.78	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPL3NT32ISNTMVNTSCNTHE	IS	120-277	3	L	0.78	✓	✓	NT	✓	✓	NT
HOWARD INDUSTRIES	EPL4NT32ISNTMVNTMCNTHE	IS	120-277	4	L	0.78	✓	✓	NT	✓	✓	NT
KEYSTONE	KTEB-232-UV-IS-H-P	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
KEYSTONE	KTEB-232-UV-IS-N-P	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
KEYSTONE	KTEB-332-UV-IS-H-P	IS	120-277	3	H	1.18	✓	✓	NT	✓	✓	NT
KEYSTONE	KTEB-332-UV-IS-N-P	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
KEYSTONE	KTEB-432-UV-IS-L-P	IS	120-277	4	L	0.78	✓	✓	NT	✓	✓	NT
MAXLITE	MLEU324HENTSC	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
MAXLITE	SKEU324HENTSC	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 1x32T8NTUNV ISH-SC	IS	120-277	1	H	1.18	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 1X32T8NTUNV ISH HT SC	IS	120-277	1	H	1.18	✓	✓	NT	NT	NT	NT
SYLVANIA OSRAM	QHE 1x32T8NTUNV ISL-SC	IS	120-277	1	L	0.78	✓	✓	NT	NT	NT	NT
SYLVANIA OSRAM	QHE 1x32T8NTUNV ISN-SC	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
SYLVANIA OSRAM	QHE 2x32T8NTUNV ISH-SC	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 2x32T8NTUNV ISL-SC	IS	120-277	2	L	0.78	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 2X32T8NTUNV ISH HT SC	IS	120-277	2	H	1.18	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 2X32T8NTUNV ISN-SC	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 3x32T8NTUNV ISL-SC	IS	120-277	3	L	0.78	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 3x32T8NTUNV ISN-SC	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 3x32T8NTUNV ISL-SC-1	IS	120-277	3	L	0.78	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 3x32T8NTUNV ISN-SC-1	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 4x32T8NTUNV ISL-SC	IS	120-277	4	L	0.78	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 4X32T8NT347 ISN-SC	IS	347	4	N	0.88	NT	NT	✓	NT	NT	✓
SYLVANIA OSRAM	QHE 4x32T8NTUNV ISH	IS	120-277	4	H	1.18	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 4x32T8NTUNV ISL-SC-1	IS	120-277	4	L	0.78	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 4X32T8NTUNV ISN-SC	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QHE 4x32T8NTUNV ISN-SC-1	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QTP 1X32T8NTUNV ISN-SC	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
SYLVANIA OSRAM	QTP 2X32T8NT347 ISN-SC	IS	347	2	N	0.88	NT	NT	✓	NT	NT	✓
SYLVANIA OSRAM	QTP 2X32T8NTUNV ISN-SC	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QTP 3X32T8NTUNV ISN-SC	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
SYLVANIA OSRAM	QTP 4X32T8NTUNV ISN-SC	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
ULTRA SAVE	UT232347	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
ULTRA SAVE	UT432347	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT

✓ = Compatible ✗ = Incompatible NA = Not applicable

12W LED T8 Dual Mode (LED12WT8/48/8xx-G9DM)

Manufacturer	Part Number	Start Method	Volts	# of Lamps	BF		N			N-1		
					Type	Value	120	277	347	120	277	347
UNIVERSAL TRIAD	B132IUNVHE-A	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
UNIVERSAL TRIAD	B132IUNVHP-N	IS	120-277	1	N	0.88	✓	✓	NT	NT	NT	NT
UNIVERSAL TRIAD	B232IUNVEL-A	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B232IUNVHE-A	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B232IUNVHEH-A	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B232IUNVHP-N	IS	120-277	2	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B332IUNVEL-A	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B332IUNVHE-A	IS	120-277	3	N	0.95	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B332IUNVHP-A	IS	120-277	3	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B432IUNVEL-A	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B432IUNVHE-A	IS	120-277	4	N	0.9	✓	✓	NT	✓	✓	NT
UNIVERSAL TRIAD	B432IUNVHP-A	IS	120-277	4	N	0.88	✓	✓	NT	✓	✓	NT

✓ = Compatible X = Incompatible NA = Not applicable

13W LED T8 U-Bend Dual Mode (LED13WT8/U1/8xx-G9DM) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
ARCATA	ACT2P32ISUNV	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ARCATA	ACT4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ADVANCE	ICN-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	-	-
ADVANCE	ICN-2P32-N	IS	2	X	X	✓	✓	-	-	-	-	-	REV C-E
ADVANCE	ICN-3P32-N	IS	3	-	-	✓	✓	✓	✓	-	-	-	REV D
ADVANCE	ICN-4P32-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV D
ADVANCE	ICN-2P32-SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ADVANCE	ICN-4P32-SC	IS	4	-	-	-	-	X	✓	X	✓	-	REV D
ADVANCE	ICN-2S40-N	RS	2	✓	✓	✓	✓	-	-	-	-	-	-
ADVANCE	IOPA-1P32-N	IS	1	✓	✓	-	-	-	-	-	-	-	REV B
ADVANCE	IOPA-2P32-N	IS	2	X	X	✓	✓	-	-	-	-	-	REV A
ADVANCE	IOPA-4P32-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV C
ADVANCE	IOPA-1P32-LW-N	IS	1	X	X	-	-	-	-	-	-	-	REV A
ADVANCE	IOPA-2P32-LW-N	IS	2	X	X	✓	✓	-	-	-	-	-	REV B
ADVANCE	IOPA-4P32-LW-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV A
ADVANCE	IOP-4PSP32-SC	PS	4	-	-	-	-	✓	✓	✓	✓	-	REV B
ADVANCE	RCN-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	-	REV D
ADVANCE	REZ-2S32-SC	PS	2	-	-	✓	-	-	-	-	-	✓	REV E
ADVANCE	REL-2P32-SC	IS	2	✓	-	✓	-	-	-	-	-	-	UL 704G
ADVANCE	REL-4P32-RH-TP	IS	4	-	-	-	-	X	-	X	-	-	-
ADVANCE	RELB-2S40-N	RS	2	X	-	X	-	-	-	-	-	-	-
EIKO	PM 2x32T8-UNV-IS-L	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIP	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPHE	IS	2	X	X	✓	✓	-	-	-	-	-	-
ESPEN	VE232MVHIPE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ESPEN	VE432MVHIP	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ESPEN	VE432MVHIPE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ESPEN	VE432MVHIPHE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
FULHAM	NPY-120-232-LT8	PS	2	✓	-	✓	-	-	-	-	-	-	-
FULHAM	NPY-120-432-T8B	IS	4	-	-	-	-	✓	-	✓	-	-	-
FULHAM	NPY-120-432-T8-IS	IS	4	-	-	-	-	✓	-	✓	-	-	-
FULHAM	WHCG3-120-T8-IS	IS	3	-	-	✓	-	✓	-	-	-	-	-
FULHAM	WHCG5-120-T12-RS	RS	2	✓	-	✓	-	-	-	-	-	-	-
FULHAM	WH2-120-L	IS	1	✓	-	-	-	-	-	-	-	-	-
FULHAM	WH5-120-L	IS	4	-	-	-	-	X	-	✓	-	-	-
FUSION	FB232MVE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB232MVE-HE	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB232MVE-LHE	IS	2	✓	-	✓	-	-	-	-	-	-	-
FUSION	FB232MVE-PPS-HE	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
FUSION	FB332MVE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
FUSION	FB432MVE	IS	4	-	-	-	-	X	X	X	X	-	-
FUSION	FB432MVE-HE	IS	4	-	-	-	-	X	X	X	X	-	-
FUSION	FB432MVE-PPS-HE	PS	4	-	-	-	-	✓	✓	✓	✓	-	-

✓ = Compatible X = Incompatible



13W LED T8 U-Bend Dual Mode (LED13WT8/U1/8xx-G9DM) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
GE	GE132MAXP-N/ULTRA	IS	1	✓	✓	-	-	-	-	-	-	-	-
GE	GE 232-120RES-DIYB	IS	2	✓	-	✓	-	-	-	-	-	-	-
GE	GE 232-120-PS-N	PS	2	✓	-	✓	-	-	-	-	-	-	-
GE	GE232MAX-G-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-L/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-N/ULTRA	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232MAXP-H/ULTRA	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
GE	GE232-MV-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-L	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-N	PS	2	✓	✓	✓	✓	-	-	-	-	-	-
GE	GE232-MVPS-H	PS	2	✗	✗	✓	✓	-	-	-	-	-	-
GE	GE332MAX-L/ULTRA	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
GE	GE332MAX90-V60	IS	3	-	-	✗	✗	✓	✓	-	-	✓	-
GE	GE332MV-N-DIY	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
GE	GE432MAX-G-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GE	GE432MAX-H/ULTRA	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GE	GE432MAX-H-42T	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
GREENHILL	GH2P59ISUNV	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
GREENHILL	GH4P32ISUNV	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HALCO	EP232IS/H/MV/HE	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
HALCO	EP332IS/L/MV/HE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HALCO	EP332IS/MV/MC	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HALCO	EP432IS/L/MV/HE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HALCO	EP432IS/MV/MC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HOWARD	EP3/32IS/MV/SC/HE	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
HOWARD	EP4/32IS/MV/MC/HE	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
HUAFENG	ENI-T8-32-P2SC-N	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
HUAFENG	ENI-T8-32-P4MC-N	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
KEYSTONE	KTEB-132-UV-IS-L-P	IS	1	✓	✓	-	-	-	-	-	-	-	-
KEYSTONE	KTEB-132-UV-PS-N-P	IS	1	✓	✓	-	-	-	-	-	-	-	A4
KEYSTONE	KTEB-232-UV-IS-L-P	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	✓	✓	✓	✓	-	-	-	-	-	D1
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	✗	✗	✓	✓	-	-	-	-	-	D1
KEYSTONE	KTEB-232-UV-PS-VDIM	PS	2	-	-	✓	✓	-	-	-	-	✓	-
KEYSTONE	KTEB-232-UV-PS-H-P	PS	2	✗	✗	✗	✗	-	-	-	-	-	-
KEYSTONE	KTEB-332-UV-IS-L-P	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	-	-	✓	✓	✓	✓	-	-	-	B
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	-	-	✗	✗	✓	✓	-	-	-	D1
KEYSTONE	KTEB-332-UV-PS-L-P	PS	3	-	-	✓	✓	✓	✓	-	-	-	D2
KEYSTONE	KTEB-332-UV-PS-N-P	PS	3	-	-	✓	✓	✓	✓	-	-	-	D2
KEYSTONE	KTEB-332-UV-PS-H-P	PS	3	-	-	✗	✗	✗	✗	-	-	-	-
KEYSTONE	KTEB-432-UV-IS-L-P	IS	4	-	-	-	-	✓	✓	✓	✓	-	A1
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	-	-	-	-	✓	✓	✓	✓	-	A1
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	-	-	-	-	✗	✗	✓	✓	-	A3
KEYSTONE	KTEB-432-UV-PS-L-P	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
KEYSTONE	KTEB-432-UV-PS-N-P	PS	4	-	-	-	-	✓	✓	✓	✓	-	D2
OSRAM	QHE 2x32T8/UNV DIM-TC	PS	2	-	-	✓	✓	-	-	-	-	✓	-
OSRAM	QHE 2x32T8/UNV ISL SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
OSRAM	QTP 2x32T8/UNV ISN-SC	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
OSRAM	QTP 3x32T8/UNV PSX-SC	PS	3	-	-	-	-	✗	✗	-	-	-	-
OSRAM	QHE 4x32T8/UNV ISL SC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
OSRAM	QHE 4x32T8/UNV PSN-SC	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
OSRAM	QTP 4x32T8/UNV ISN-SC	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PACIFIC	EB-332IS-U	IS	3	-	-	✓	✓	✓	✓	-	-	-	-
PACIFIC	EB-432IS-U	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PLUSRITE	BAF232IS/MV/H	IS	2	✗	✗	✓	✓	-	-	-	-	-	-
PQL	70201	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
PQL	70204	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
PREMIUM	BB-T8/UVH-2x32	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
PREMIUM	BB-T8/UVH-3x32	IS	3	-	-	-	-	✓	✓	-	-	-	-
ROBERTSON	RSW240T12120	PS	2	✗	-	✗	-	-	-	-	-	-	-
STANDARD	E232P1120L	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8IS120/L/AS	IS	2	✓	-	✓	-	-	-	-	-	-	-

✓ = Compatible ✗ = Incompatible

13W LED T8 U-Bend Dual Mode (LED13WT8/U1/8xx-G9DM) 120-277V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
STANDARD	E232T8IS120/N/AS	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8PS120-277/N/AS/BULK	PS	2	-	-	✓	✓	-	-	-	-	-	-
STANDARD	E432T8IS120/H	IS	4	-	-	-	-	✗	-	✓	-	-	-
STANDARD	E432T8IS120/L/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	-	-
STANDARD	E432T8IS120/N/AS/BULK	IS	4	-	-	-	-	✓	-	✓	-	-	-
SUNPARK	SL15T	PS	2	✓	-	✓	-	-	-	-	-	-	-
TCP	E4P32PSUNVE	PS	4	-	-	-	-	✓	✓	✓	✓	-	-
UNIVERSAL	B232PUSV3PLA	PS	2	✓	✓	✓	✓	-	-	-	-	✓	REV A
UNIVERSAL	B232SR120S30	PS	2	-	-	✗	-	-	-	-	-	✓	REV E
UNIVERSAL	B232IUNVHP-N	IS	2	-	-	✓	✓	-	-	-	-	-	REV B
UNIVERSAL	B332IUNVHP-A	IS	3	-	-	✓	✓	✓	✓	-	-	-	REV B
UNIVERSAL	B432IUNVHP-A	IS	4	-	-	-	-	✓	✓	✓	✓	-	REV B
UNIVERSAL	B232PUNVHE-B	PS	2	✗	✗	✓	✓	-	-	-	-	-	REV B

✓ = Compatible ✗ = Incompatible

13W LED T8 U-Bend Dual Mode (LED13WT8/U1/8xx-G9DM) 347-480V Ballasts

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Dim	Ballast Version
				120	277	120	277	120	277	120	277		
ARCATA	ACT2P32IS347	IS	2	✓	✓	✓	✓	-	-	-	-	-	-
ARCATA	ACT4P32IS347	IS	4	-	-	-	-	✓	✓	✓	✓	-	-
ADVANCE	GOPA-2P32-LW-N	IS	2	✓	-	✗	-	-	-	-	-	-	REV A
ADVANCE	GOPA-2P32-LW-SC	IS	2	✓	-	✓	-	-	-	-	-	-	REV D
ADVANCE	GOPA-4P32-LW-SC	IS	4	-	-	-	-	✓	-	✓	-	-	REV D
ADVANCE	GOPA-2P32-SC	IS	2	✓	-	✓	-	-	-	-	-	-	REV C
ADVANCE	GOPA-4P32-SC	IS	4	-	-	-	-	✓	-	✓	-	-	REV D
FUSION	FB232347E-HE	IS	2	✓	-	✓	-	-	-	-	-	-	-
FUSION	FB232347E-L	IS	2	✓	-	✓	-	-	-	-	-	-	-
FUSION	FB232347E-PPS-HE	PS	2	✓	-	✓	-	-	-	-	-	-	-
FUSION	FB432347E-HE	IS	4	-	-	-	-	✓	-	✓	-	-	-
FUSION	FB432347E-L	IS	4	-	-	-	-	✓	-	✓	-	-	-
FUSION	FB432347E-PPS-HE	PS	4	-	-	-	-	✓	-	✓	-	-	-
GE	GE232MAX347-H	IS	2	✗	-	✓	-	-	-	-	-	-	-
GE	GE332MAX347-H	IS	3	-	-	✗	-	✓	-	-	-	-	-
GE	GE432MAX347-H	IS	4	-	-	-	-	✗	-	✗	-	-	-
KEystone	KTEB-232-3-IS-N-P	IS	2	✓	-	✓	-	-	-	-	-	-	-
KEystone	KTEB-432-3-IS-N-P	IS	4	-	-	-	-	✓	-	✓	-	-	-
MAGNETEK	B232I347HP	IS	2	✗	-	✗	-	-	-	-	-	-	-
OSRAM	QHE 2x32 T8/347 ISL-SC	IS	2	✓	-	✓	-	-	-	-	-	-	-
OSRAM	QHE 2x32 T8/347 ISN-SC	IS	2	✓	-	✓	-	-	-	-	-	-	-
OSRAM	QHE 4x32 T8/347 ISL-SC	IS	4	-	-	-	-	✓	-	✓	-	-	-
STANDARD	E232T8IS347/H/90C	IS	2	✗	-	✗	-	-	-	-	-	-	-
STANDARD	E232T8IS347/L/BULK	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E232T8IS347/N/BULK	IS	2	✓	-	✓	-	-	-	-	-	-	-
STANDARD	E432PI347G01	IS	4	-	-	-	-	✓	-	✗	-	-	-
STANDARD	E432T8IS347/L/BULK	IS	4	-	-	-	-	✓	-	✓	-	-	-
STANDARD	E432T8IS347/N	IS	4	-	-	-	-	✓	-	✓	-	-	-
STANDARD	E432T8IS347/N/BULK	IS	4	-	-	-	-	✗	-	✗	-	-	-
STANDARD	E432T8IS347/H/90C	IS	4	-	-	-	-	✗	-	✗	-	-	-
ULTRASAVE	JR232347	RS	2	-	-	✗	-	-	-	-	-	-	-
ULTRASAVE	MR232347	IS	2	✗	-	✓	-	-	-	-	-	-	-
UNIVERSAL	B232I347HE-A	IS	2	✓	-	✓	-	-	-	-	-	-	-
UNIVERSAL	B432I347HE-A	IS	4	-	-	-	-	✓	-	✓	-	-	-
UNIVERSAL	B432I347RH	IS	4	-	-	-	-	✓	-	✓	-	-	REV H

✓ = Compatible ✗ = Incompatible



12W LED T8 Dual Mode (LED12WT8/48/8xx-DM-A)

Manufacturer	Part Number	Start Method	# of Lamps	Ballast Factor	Value	Lamp Connection	N-1 Lamp		N Lamp	
							120	277	120	277
ESPEN	VE232MVHIPHE	IS	2	H	1.19	Parallel	✓	P	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2	N	0.89	Parallel	✓	✓	✓	✓
ESPEN	VE2P32MVHIPHE	IS	2	N	0.89	Parallel	✓	P	✓	✓
General Electric	GE232MAX-G-N	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	2	N	0.88	NA	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	0.88	Parallel	✓	✓	✓	✓
Philips-Advance	VEL-2P32-SC	IS	2	N	0.88	Parallel	NA	P	NA	✓
Philips-Advance	ICN-3P32-SC	IS	3	N	0.89	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QT 2x32277 IS-SC	IS	2	N	0.88	Parallel	NA	P,T	NA	✓
EIKO	PM-2x32T8-UNV-IS	IS	2	N	0.87	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H	1.2	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IUNVHP-A	IS	3	N	0.88	Parallel	✓	P	✓	✓
Universal Lighting Technologies	B232I277RH-A	IS	2	N	0.88	Parallel	NA	P,T	NA	✓
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	N	0.88	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	0.87	Parallel	✓	✓	✓	✓
General Electric	GE232MAX347-N	IS	2	H	1.02	Parallel	NA	NA	NA	NA
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	N	0.87	Parallel	NA	NA	NA	NA
MAXLITE	SKEU323L/SC	IS	3	L	0.78	Parallel	NA	NA	✗	NA
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	0.78	Parallel	NA	NA	NA	NA
General Electric	GE232MAX-G-L	IS	2	L	0.77	Parallel	NA	NA	NA	NA
Philips-Advance	ICN-132-MC	IS	1	N	0.88	NA	NA	NA	NA	NA
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	1.22	Parallel	✓	✗	✓	✗
MAXLITE	MLEU323H/SC	IS	3	H	1.18	Parallel	✓	✓	NA	NA
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	0.87	Parallel	✓	✓	NA	NA
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	1.18	Parallel	NA	NA	NA	NA
KEYSTONE	KTEB-232-UV-IS-L-P	IS	2	L	0.78	Parallel	NA	NA	NA	NA
Philips-Advance	IOPA-2P32-LW-N	IS	2	L	0.76	Parallel	NA	NA	NA	NA
General Electric	GE232MAXP-N/ULTRA	IS	2	N	0.87	Parallel	NA	NA	NA	NA
Philips-Advance	IOP-1P32-LW-N	IS	1	L	0.77	NA	NA	NA	NA	NA
Philips-Advance	IOP-2P32-LW-N	IS	2	L	0.77	Parallel	NA	NA	NA	NA
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	0.78	NA	NA	NA	NA	NA
TCP	TCP3P32ISUNVH	IS	3	H	1.18	Parallel	NA	NA	NA	NA
Universal Lighting Technologies	B232IUNVHEH-A	IS	2	H	1.18	Parallel	NA	NA	NA	NA
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	1.18	Parallel	NA	NA	NA	NA

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

12W LED T8 Dual Mode - 120-277V (LED12WT8/48/8xx-G8DM)

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Ballast Version
				120	277	120	277	120	277	120	277	
ADVANCE	ICN-2P32-N	IS	2	✗	✗	✓	✓	NA	NA	NA	NA	REV C/E
ADVANCE	ICN-2P32-SC	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
ADVANCE	ICN-3P32-N	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	REV D
ADVANCE	ICN-4P32-N	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	REV D
ADVANCE	ICN-4P32-SC	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	REV D
ADVANCE	IOPA-1P32-LW-N	IS	1	✗	✗	NA	NA	NA	NA	NA	NA	REV A
ADVANCE	IOPA-1P32-N	IS	1	✓	✓	NA	NA	NA	NA	NA	NA	REV B
ADVANCE	IOPA-2P32-LW-N	IS	2	✗	✗	✓	✓	NA	NA	NA	NA	REV B
ADVANCE	IOPA-2P32-N	IS	2	✗	✗	✓	✓	NA	NA	NA	NA	REV A
ADVANCE	IOPA-3P32-N	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	REV B
ADVANCE	IOPA-4P32-LW-N	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	REV A
ADVANCE	REL-2P32-SC	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
ADVANCE	VEL-2P32-SC	IS	2	NA	✗	NA	✓	NA	NA	NA	NA	REV D
ARCATA	ACT2P32ISUNV	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
ARCATA	ACT4P32ISUNV	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
ESPEN	VE232MVHIPHE	IS	2	✗	✗	✓	✓	NA	NA	NA	NA	NA
ESPEN	VE232MVHIPL	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
ESPEN	VE432MVHIP	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
ESPEN	VE432MVHIPE	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
FULHAM	NPY-120-232-LT8	PS	2	✗	NA	✗	NA	NA	NA	NA	NA	NA

✓ = Compatible ✗ = Incompatible NA = Not applicable

12W LED T8 Dual Mode - 120-277V (LED12WT8/48/8xx-G8DM)

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Ballast Version
				120	277	120	277	120	277	120	277	
FULHAM	NPY-120-432-T8B	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
FULHAM	NPY-120-432-T8-IS	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
FULHAM	WH2-120-L	IS	1	✓	NA	NA	NA	NA	NA	NA	NA	NA
FULHAM	WH5-120-L	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
FULHAM	WHCG3-120-T8-IS	IS	3	NA	NA	✓	NA	✓	NA	NA	NA	NA
FUSION	FB232MVE	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
FUSION	FB232MVE-HE	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
FUSION	FB232MVE-LHE	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
FUSION	FB232MVE-N	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
FUSION	FB232MVE-PPS-HE	PS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
FUSION	FB332MVE	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	NA
FUSION	FB432MVE	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
FUSION	FB432MVE-HE	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
FUSION	FB432MVE-N	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
FUSION	FB432MVE-PPS-HE	PS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
General Electric	GE 232-120-PS-N	PS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
General Electric	GE232MAXP-H/ULTRA	IS	2	✗	✗	✓	✓	NA	NA	NA	NA	NA
General Electric	GE232MAXP-N/ULTRA	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
General Electric	GE232-MVPS-H	PS	2	✗	✗	✓	✓	NA	NA	NA	NA	NA
General Electric	GE232-MVPS-L	PS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
General Electric	GE332MAX90-V60	IS	3	NA	NA	✗	✗	✓	✓	NA	NA	NA
General Electric	GE332MAX-L/ULTRA	IS	3	NA	NA	✓	✓	✓	✓			NA
General Electric	GE332MV-N-DIY	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	NA
General Electric	GE432-120-N	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
General Electric	GE432MAX-G-N	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
General Electric	GE432MAX-H-42T	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
General Electric	GE432MV-N-DIY	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Greenhill	GH4P32ISUNV	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Halco	EP332IS/MV/MC	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	NA
Halco	EP432IS/L/MV/HE	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Halco	EP432IS/MV/MC	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Howard Industries	EP4/32IS/MV/MC/HE	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Huafeng	ENI-T8-32-P25C-N	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
Huafeng	ENI-T8-32-P4MC-N	IS	4	NA	NA	NA	NA	✗	✓	✗	✓	NA
Keystone	KTEB-232-UV-IS-N-P	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	REV D1
Keystone	KTEB-232-UV-PS-VDIM	PS	2	NA	NA	✓	✓	NA	NA	NA	NA	NA
Keystone	KTEB-332-UV-IS-N-P	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	REV B
Keystone	KTEB-432-UV-IS-N-P	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	REV A1
Osram Sylvania	QHE 2x32T8/UNV DIM-TC	PS	2	NA	NA	✓	✓	NA	NA	NA	NA	NA
Osram Sylvania	QTP 4x32T8/UNV ISN-SC	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Pacific	EB-332IS-U	IS	3	NA	NA	✓	✓	✓	✓	NA	NA	NA
Pacific	EB-432IS-U	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
PQL	70201	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
PQL	70204	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
Premium	BB-T8/UVH-2x32	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
Premium	BB-T8/UVH-3x32	IS	3	NA	NA	NA	NA	NA	✓	NA	NA	NA
Robertson	RSW240T12120	PS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
Standard	E232P1120L	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
Standard	E432T8IS120/H	IS	4	NA	NA	NA	NA	✗	NA	✓	NA	NA
Standard	E432T8IS120/N/AS/BULK	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
Sunpark	SL15T	PS	2	✗	NA	✓	NA	NA	NA	NA	NA	NA
Universal Lighting Technologies	B232PUSV3PLA	PS	2	✗	✗	✗	✗	NA	NA	NA	NA	REV A
Universal Lighting Technologies	B232SR120S30	PS	2	NA	NA	✗	NA	NA	NA	NA	NA	REV E
Universal Lighting Technologies	B432IUNVHP-A	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	REV B

✓ = Compatible ✗ = Incompatible NA = Not applicable

12W LED T8 Dual Mode - 347-480V (LED12WT8/48/8xx-G8DM)

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Ballast Version
				120	277	120	277	120	277	120	277	
advance	GOPA-2P32-LW-SC	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	REV D
advance	GOPA-2P32-SC	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	REV C

✓ = Compatible ✗ = Incompatible NA = Not applicable

12W LED T8 Dual Mode - 347-480V (LED12WT8/48/8xx-G8DM)

Manufacturer	Part Number	Start Method	# of Lamps	1 Lamp		2 Lamp		3Lamp		4Lamp		Ballast Version
				120	277	120	277	120	277	120	277	
advance	GOPA-4P32-LW-SC	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	REV D
advance	GOPA-4P32-SC	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	REV D
Arcata	ACT2P32IS347	IS	2	✓	✓	✓	✓	NA	NA	NA	NA	NA
Arcata	ACT4P32IS347	IS	4	NA	NA	NA	NA	✓	✓	✓	✓	NA
fusion	FB232347E-HE	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
fusion	FB232347E-L	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
fusion	FB232347E-N	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
fusion	FB232347E-PPS-HE	PS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
fusion	FB432347E-HE	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
fusion	FB432347E-L	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
fusion	FB432347E-N	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
fusion	FB432347E-PPS-HE	PS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
general electric	GE232MAX347-H	IS	2	✗	NA	✓	NA	NA	NA	NA	NA	NA
general electric	GE232PS347-N	PS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
general electric	GE332MAX347-H	IS	3	NA	NA	✗	NA	✓	NA	NA	NA	NA
general electric	GE432MAX347-H	IS	4	NA	NA	NA	NA	✗	NA	✓	NA	NA
general electric	GE432PS347-N	PS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
osram sylvania	QHE 2x32 T8/347 ISL-SC	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
osram sylvania	QHE 2x32 T8/347 ISN-SC	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
standard	E232T8IS347/H/90C	IS	2	✗	NA	✗	NA	NA	NA	NA	NA	NA
standard	E232T8IS347/L/BULK	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
standard	E232T8IS347/N/BULK	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
standard	E432PI347G01	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
standard	E432T8IS347/H/90C	IS	4	NA	NA	NA	NA	✓	NA	✗	NA	NA
standard	E432T8IS347/L/BULK	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
standard	E432T8IS347/N	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
standard	E432T8IS347/N/BULK	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA
Universal Lighting Technologies	B232I347HE-A	IS	2	✓	NA	✓	NA	NA	NA	NA	NA	NA
Universal Lighting Technologies	B432I347HE-A	IS	4	NA	NA	NA	NA	✓	NA	✓	NA	NA

✓ = Compatible ✗ = Incompatible NA = Not applicable

12W LED T8 Dual Mode (LED12WT8/48/8xx-G8DM) - Emergency Ballasts

Manufacturer	Part Number	Compatibility
IOTA	ISL-540	✓
Keystone	KT-EMRG-500	✓
Keystone	KT-EMRG-750-CFL4	✓
Keystone	KT-EMRG-1300-T5	✓

✓ = Compatible

15W LED T8 Dual Mode (LED15WT8F/48/8xx-G7DM)

Manufacturer	Part Number	Start Method	# of Lamps	BF	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
ACT	ACT 2P32ISUNVE	IS	2	N	Parallel	✓	✓	✓	✓
ANTRON ELECTRONICS	A32T8MICLO	IS	2	L	Parallel	✓	✓	✓	✓
ARCATA	ACT 3P32ISUNVLE	IS	3	L	Parallel	✓	✓	✓	✓
DAMAR	EL232-120/277HF(1688B)	IS	2	N	Parallel	✓	✗	✓	✓
DAMAR	EL232HL-120/277HF(1688D)	IS	2	H	Parallel	✗	✗	✓	✗
DAMAR	EL332-120/277HF(3654C)	IS	3	N	Parallel	✓	✓	✓	✓
DAMAR	EL332HL-120/277HF(3654H)	IS	3	H	Parallel	✓	✓	✓	✓
DAMAR	EL432-120/277HF(3093B)	IS	4	N	Parallel	✓	✓	✓	✓
DAMAR	EL432HL-120/277HF(3093C)	IS	4	H	Parallel	✗	✗	✗	✗
EIKO	PM-2X32T8-UNV-IS-L	IS	2	L	Parallel	✓	✓	✓	✓
EIKO	PM-3X32T8-UNV-IS	IS	3	N	Parallel	✓	✓	✗	✓
EIKO	PM-3X32T8-UNV-IS-H	IS	3	H	Parallel	✗	✓	✗	✓
EIKO	PM-3X32T8-UNV-IS-L	IS	3	L	Parallel	✓	✓	✗	✓
EIKO	PM-4X32T8-UNV-IS	IS	4	N	Parallel	✗	✓	✗	✓
EIKO	PM-4X32T8-UNV-IS-L	IS	4	L	Parallel	✗	✓	✗	✓
EIKO	PM-2X32T8-UNV-IS	IS	2	N	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

15W LED T8 Dual Mode (LED15WT8F/48/8xx-G7DM)

Manufacturer	Part Number	Start Method	# of Lamps	BF	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
EIKO	PM-2x32T8-UNV-IS-H	IS	2	H	Parallel	✓	✓	✗	✓
ESPEN	VE232MVHIPE	IS	2	N	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPHE	IS	2	H	Parallel	✓	✓	✓	✓
ESPEN	VE232MVHIPL	IS	2	L	Parallel	✓	✓	✓	✓
General Electric	GE-232-MV-N	IS	2	N	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-N/ULTRA	IS	2	N	Parallel	✓	P	✓	✓
General Electric	GE432MAX-H/ULTRA	IS	4	H	Parallel	✓	P,T	✓	✓
General Electric	GE432MAX-L/ULTRA	IS	4	L	Parallel	✓	✓	✓	✓
General Electric	GE-232-MAX-H/Ultra	IS	2	H	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-G-N	IS	4	N	Parallel	✓	✓	✓	✓
General Electric	GE132MAX-G-N	IS	1	H	n.a	NA	NA	✗	✗
General Electric	GE132MAX-H/ULTRA	IS	1	H	n.a	NA	NA	✓	✓
General Electric	GE132MAX-L/ULTRA	IS	1	H	n.a	NA	NA	✗	✗
General Electric	GE132MAXP-N/ULTRA	IS	1	N	n.a	NA	NA	✓	✓
General Electric	GE232MV-N-DIY	IS	2	N	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-L/ULTRA	IS	2	L	Parallel	✓	✓	✓	✓
General Electric	GE232MAX347-N	IS	2	N	Parallel	NA	✗	NA	(347V)
General Electric	GE332MV-N	IS	3	H	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-N/ULTRA	IS	3	H	Parallel	✗	✗	✓	✓
General Electric	GE332MAX-L/ULTRA	IS	3	H	Parallel	✓	✓	✓	✓
General Electric	GE332MAX-G-N	IS	3	H	Parallel	✓	✓	✓	✓
General Electric	GE332MAXP-H/ULTRA	IS	3	H	Parallel	✓	✓	✓	✓
General Electric	GE432-120-RES	IS	4	N	Parallel	✓	NA	✓	NA
General Electric	GE432MV-N-42T	IS	4	H	Parallel	✓	✓	✓	✓
General Electric	GE432MAX-N/ULTRA	IS	4	H	Parallel	✓	✓	✓	✓
General Electric	GE432MAX347-N	IS	4	N	Parallel	NA	(347V)	NA	(347V)
General Electric	GE232MAXP90-V60	IS	2	H	Parallel	✓	P,T	✓	T
General Electric	GE332MAXP90-V60	IS	3	H	Parallel	✓	P,T	✓	T
General Electric	GE432MAX-H/ULTRA	IS	4	H	Parallel	✓	✓	✓	✓
General Electric	GE232MAX-G-L	IS	2	L	Parallel	✗	✗	✗	✗
General Electric	GE332MAXP-L/ULTRA	IS	3	L	Parallel	✓	✓	✓	✓
Halco	EP232IS/MV/HE	IS	2	N	Parallel	✓	✓	✓	✓
Halco	EP332IS/MV/HE	IS	3	H	Parallel	✓	✓	✓	✓
Halco	EP432IS/MV/HE	IS	4	H	Parallel	✓	✓	✗	✓
Halco	EP432IS/L/MV/HE	IS	4	H	Parallel	✓	✓	✓	✓
Halco	EP232IS/L/MV/HE	IS	2	L	Parallel	✓	✓	✓	✓
Halco	EP232IS/H/MV/HE	IS	2	H	Parallel	✓	✓	✓	✓
Halco	EP332IS/L/MV/HE	IS	3	L	Parallel	✓	✓	✓	✓
Halco	EP432IS/120/MC	IS	4	n	Parallel	✗	NA	✗	NA
HATCH	HL232BIS/UV/HE/W	IS	2	N	Parallel	✓	✓	✓	✓
HATCH	HL432BIS/UV/HE/W	IS	4	N	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH4/32IS/MV/SC/HE	IS	4	H	Parallel	✗	✗	✗	✗
HOWARD INDUSTRIES	EP3/32IS/MV/SC/HE	IS	3	N	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPL4/32IS/MV/MC/HE	IS	4	L	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH2/32IS/MV/MC/HE	IS	2	H	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	E2/32IS-120MC	IS	2	N	Parallel	P,T	NA	✓	NA
HOWARD INDUSTRIES	EPL2/32IS/MV/MC/HE	IS	2	L	Parallel	✓	P,T	✓	✓
HOWARD INDUSTRIES	EPL3/32IS/MV/SC/HE	IS	3	L	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP4/32IS/MV/MC/HE	IS	4	N	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/32IS/MV/MC/HE	IS	2	N	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP3/32IS/MV/MC/HE	IS	3	N	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EPH3/32IS/MV/MC/HE	IS	3	N	Parallel	✓	✗	✓	✓
KEYSTONE	KTEB-232-UV-IS-N-P	IS	2	H	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432RIS-1-TP-SL	IS	4	N	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-332-UV-IS-N-P	IS	3	N	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-432-UV-IS-N-P	IS	4	N	Parallel	✓	✓	✗	✓
KEYSTONE	KTEB-232LBF-1-TP-PIC-EV	IS	2	N	Parallel	✓	NA	✓	NA
KEYSTONE	KTEB-232-UV-IS-H-P	IS	2	H	Parallel	✓	✓	✓	✓
KEYSTONE	KTEB-332-UV-IS-H-P	IS	3	H	Parallel	✓	✗	✓	✓
KEYSTONE	KTEB-432-UV-IS-H-P	IS	4	H	Parallel	✓	✓	✓	✓
LIGHTING PRODUCTS LIMITED	EB-332EBF-UV-TP-HE	IS	3	L	Parallel	✓	✓	✓	✓
MAXLITE	SKEU322HEL/SC	IS	2	H	Parallel	✓	✓	✓	✓
MAXLITE	SKEU324HE/SC	IS	4	H	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

15W LED T8 Dual Mode (LED15WT8F/48/8xx-G7DM)

Manufacturer	Part Number	Start Method	# of Lamps	BF	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
MAXLITE	SKEU323L/SC	IS	3	H	Parallel	✓	✓	✓	✓
MAXLITE	MLEU322HEU/SC	IS	2	L	Parallel	✓	✓	✓	✓
MAXLITE	MLEU323H/SC	IS	3	H	Parallel	✗	✗	✗	✗
MAXLITE	MLEU324HE/SC	IS	4	N	Parallel	✗	✓	✗	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISN-SC	IS	2	N	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISN-SC	IS	2	N	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISL-SC	IS	2	L	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISN-SC	IS	4	N	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4X32T8/UNV ISL-SC	IS	4	L	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 4x32T8/UNV ISN-SC	IS	4	N	Parallel	✓	✗	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISN-SC	IS	1	N	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISL-SC	IS	1	L	n.a	NA	NA	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH-SC	IS	2	H	Parallel	✓	✗	✓	✗
OSRAM SYLVANIA	QTP 3X32T8/UNV ISN-SC	IS	3	H	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISN-SC	IS	4	N	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 3X32T8/UNV ISL-SC	IS	3	L	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP2x32T8/277 ISN-D	IS	2	N	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QT2X32/120 IS-SC	IS	2	N	Parallel	T	NA	✓	NA
OSRAM SYLVANIA	QHE 3x32T8/UNV ISH HT-SC	IS	3	H	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2X32T8/UNV ISL-SC	IS	2	L	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2X32T8/UNV ISH HT-SC	IS	2	H	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 4x32T8/UNV ISH-SC	IS	4	H	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QT 2x32/347 ISH-SC	IS	2	H	Parallel	NA	✓	NA	✓
OSRAM SYLVANIA	QHE 1X32T8/UNV ISH-SC	IS	1	H	n.a	NA	NA	✓	P,T
OSRAM SYLVANIA	QT 3x32/277 IS	IS	3		Parallel	NA	✗	NA	✗
Pacific Fluorescent	EB-232IS-120-RES	IS	2	N	Parallel	✓	NA	✓	NA
Philips-Advance	ICN-2P32-N	IS	2	N	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-N	IS	2	N	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-2P32-LW-N	IS	2	L	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-3P32-LW-N	IS	3	L	Parallel	✗	✗	✗	✗
Philips-Advance	IOPA-4P32-N	IS	4	N	Parallel	✓	✓	✓	✓
Philips-Advance	IOPA-4P32-HL-SC	IS	4	H	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-N	IS	4	N	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-4P32-LW-N	IS	4	L	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-4P32-N	IS	4	N	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-1P32-N	IS	1	N	n.a	NA	NA	✗	✗
Philips-Advance	IOP-2P32HL-SC	IS	2	H	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-1P32-N	IS	1	H	n.a	NA	NA	✗	✗
Philips-Advance	IOPA-1P32-N	IS	1	H	n.a	NA	NA	✗	✗
Philips-Advance	REB-2P32-SC	IS	2	N	Parallel	✓	NA	✓	NA
Philips-Advance	IOPA-3P32-N	IS	3	H	Parallel	✓	✓	✓	✓
Philips-Advance	IOP-3P32-N	IS	3	H	Parallel	✓	✓	✓	✓
Philips-Advance	REB-4P32-SC	IS	4	N	Parallel	✓	NA	✓	NA
Philips-Advance	IOP-4P32-HL-SC	IS	4	H	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-4P32-SC	IS	4	N	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-3P32-N	IS	3	N	Parallel	✓	✓	✓	✓
Philips-Advance	VEL-2P32-SC	IS	2	N	Parallel	NA	P	NA	✓
Philips-Advance	IOPA-2P32-HL-N	IS	2	H	Parallel	✓	P	✓	✓
Philips-Advance	VEL-2P32-RH-TP	IS	2	N	Parallel	NA	✗	NA	✓
Philips-Advance	IOP-3P32HL-90C-SC	IS	3	H	Parallel	✗	✗	✗	✗
Philips-Advance	IOP-4P32-SC	IS	4	N	Parallel	✗	✓	✓	✓
Philips-Advance	IOPA-4P32-SC	IS	4	N	Parallel	✗	✓	✗	✓
Philips-Advance	ICN-132-MC	IS	1	L	n.a	NA	NA	✗	✗
Philips-Advance	ICN-2P16-TLED-N	IS	2	N	Parallel	✓	✓	✓	✓
Philips-Advance	ICN-2P32-SC	IS	2	N	Parallel	✓	✓	✓	✓
PLUSRITE	BAF232IS/MV	IS	2	N	Parallel	✓	✓	✓	✓
PLUSRITE	BAF332IS/MV	IS	3	N	Parallel	✓	✓	✓	✓
Plusrite	BAF232IS/MV/L	IS	2	L	Parallel	✓	✓	✓	✓
Plusrite	BAF332IS/MV/L	IS	3	L	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV	IS	4	N	Parallel	✓	✓	✓	✓
Plusrite	BAF432IS/MV/L	IS	4	L	Parallel	✓	✓	✓	✓
ProLume	EP232IS/L/MV/SL	IS	2	L	Parallel	✓	✓	✓	✓
Prolume	E432IS/120/R/SL	IS	4	N	Parallel	✓	NA	✓	NA

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

15W LED T8 Dual Mode (LED15WT8F/48/8xx-G7DM)

Manufacturer	Part Number	Start Method	# of Lamps	BF	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
SOLA	E-758-U-232-MC	IS	2	N	Parallel	✓	✓	✓	✓
SUNPARK	120-1/32IS HPF	IS	1	N	n.a	NA	NA	✓	NA
SUNPARK	U-2/32IS HBF	IS	2	H	Parallel	✓	✗	✓	✓
SUNPARK	U-2/32ISE-LBF	IS	2	L	Parallel	✓	✓	✓	✓
SUNPARK	U-3/32ISE	IS	3	N	Parallel	✓	✓	✓	✓
SUNPARK	120-3/32IS MPF	IS	3	H	Parallel	P,T	NA	P,T	NA
SUNPARK	U-4/32IS HP,F	IS	4	N	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32IS HBF	IS	4	H	Parallel	✓	✓	✓	✓
SUNPARK	U-4/32ISE-LBF	IS	4	L	Parallel	✓	✓	✓	✓
Superior Life	70201	IS	2	N	Parallel	✓	✗	✓	✓
TCP	E2P32ISUNVHE	IS	2	H	Parallel	✓	✗	✓	✓
TCP	E4P32ISUNVLE	IS	4	L	Parallel	✓	✗	✓	✓
TCP	E3P32ISUNVE	IS	3	N	Parallel	✓	✓	✓	✓
TCP	E3P32ISUNVLE	IS	3	L	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVE	IS	4	N	Parallel	✓	✓	✓	✓
TCP	E4P32ISUNVHE	IS	4	H	Parallel	✓	✓	✓	✓
TCP	TCP3P32ISUNVH	IS	3	H	Parallel	✓	✓	✓	✓
TOPAZ	B232IUNVHEH/A-TPZ	IS	2	H	Parallel	✓	✓	✓	✓
TOPAZ	B432IUNVHEH/A-TPZ	IS	4	H	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHP-N	IS	2	N	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVEL-A	IS	2	L	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B233IUNVHE-A	IS	2	N	Parallel	✗	✗	✗	✗
Universal Lighting Technologies	B432IUNVHE L-A	IS	4	L	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNVHEH-A	IS	2	H	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B332IUNVHP-A	IS	3	H	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHP-A	IS	4	H	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232I120RES-A	IS	2	N	Parallel	✓	NA	✓	NA
Universal Lighting Technologies	B132IUNVHP-N	IS	1	N	n.a	NA	NA	✓	✓
Universal Lighting Technologies	B232IUNVHP-B	IS	2	N	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232IUNV-C	IS	2	N	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHE-A	IS	4	N	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B432IUNVHEH-E	IS	4	H	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B232I277RH-A	IS	4	H	Parallel	NA	P,T	NA	✓
Watran	DB-232N-MV-TP-HE	IS	2	N	Parallel	✓	✓	✓	✓
Watran	DB-332N-MV-TP-HE	IS	3	N	Parallel	✓	✓	✓	✓
Watran	DB-432N-MV-TP-HE	IS	4	N	Parallel	✓	✓	✓	✓
Watran	DB-432L-MV-TP-HE	IS	4	L	Parallel	✓	✓	✓	✓
Watran	DB-232N-MV-TP-HE(SC)	IS	2	N	Parallel	✓	✓	✓	✓
WORK HORSE	WHS3G3-UNV-T8-IS	IS	3	N	Parallel	✓	✓	✓	✓
WORK HORSE	WHS4G4-UNV-T8-IS	IS	4	N	Parallel	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

T5 TYPE A LAMPS

11W LED T5 Direct Fit (LED11WT5HO/22/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
KEYSTONE	KTEB-239HO-UV-PS-SL	PS	2	Series	✓	P	✓	✓
Philips-Advance	ICN-2524-N	PS	2	Series	✓	P, T	✓	✓
Philips-Advance	ICN-2539-N	PS	2	Series	✓	P	✓	✓
Robertson	PSA239T5MV(3P20139)	PS	2	Series	✓	P	✓	P
Ultrasave	ER221347MHT	PS	2	Series	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

25W LED T5 Direct Fit (LED25WT5HO/46/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
AC ELECTRONICS	ESD-A54T5S	PS	2	Series	✓	✓	✓	✓
EIKO	PM-2X54T5 UNV PS	PS	2	Series	✓	✓	✓	✓
EIKO	PM-4X54T5 UNV PS	PS	4	Series	✓	✓	✓	✓
ESPEN	VE254MVHRP	PS	2	Series	✓	✓	✓	✓
ESPEN	VE254MVHRP(11101)	PS	2	Series	✓	✗	✓	✓
ESPEN	VE454MVHRP(11047)	PS	4	Series	✓	✓	✓	✓
ESPEN	VE454MVHRP(11100)	PS	4	Series	✓	✓	✓	✓
Fulham	RHA-UNV-254-LT5	PS	2	Series	✓	✓	✓	✓
Fulham	RHA-UNV-454-LT5	PS	4	Series	✓	✓	✓	✓
General Electric	GE254MVPS90-A	PS	2	Parallel	✓	✓	✓	✓
General Electric	GE254MVPS-D-1	PS	2	Series	✓	✓	✓	✓
General Electric	GE254PS347/480-F	PS	2	Parallel	✓	✓	✓	✓
General Electric	GE454MVPS90-E-S	PS	4	Parallel	✓	✓	✓	✓
General Electric	GE454MVPS90-F	PS	4	Parallel	✓	✓	✓	✓
General Electric	GE454PS347/480-E	PS	4	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/54HO/PRS/MV/W/MC	PRS	2	Series	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/54HO/PRS/MV/W/SC	PRS	2	Series	✓	P	✓	✓
HOWARD INDUSTRIES	EP4/54HO/PRS/MV	PRS	4	Series	✓	✓	✓	✓
KEYSTONE	KTEB-254HO-UV-PS-SL	PS	2	Series	✗	✗	✗	✗
Keystone	KTEB-254HO-UV-TP-PS	PS	2	Parallel	✓	P	✓	✓
KEYSTONE	KTEB-454HO-UV-PS	PS	4	Series	✓	✓	✓	✓
Luma	BLF254-U	PS	2	Parallel	✓	✓	✓	✓
Luma	BLF454-U	PS	4		✗	✗	✓	✓
LumaPro	4KGE7A EB-454PRS-U	PS	4	Series	✓	✓	✓	✓
Maxlite	SKEU542HOP	PS	2	Series	✓	P	✓	✓
OSRAM	QHE 1x54T5HO/UNV DIM-TC	PRS	1	n.a	✗	✗	✗	✗
OSRAM	QHE 4x54T5HO/347-480 PSN HT SCL	PRS	4	Series	347	480	347	480
OSRAM	QTP 2x54T5HO/UNV PSN HT	PRS	2	Series	✓	P	✓	✓
OSRAM	QTP 4x54T5HO/UNV PSN HT W	PRS	4	Series	✓	P	✓	P
OSRAM SYLVANIA	QHE 2x54T5HO/347-480 PSN HT MCL	PRS	2	Series	7	480	347	480
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN HT	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 4x54T5HO/UNV PSN HT SCL[DOE]	PRS	4	Series	✓	✓	✓	✓
OSRAM SYLVANIA	QS 2x54T5HO/UNV PS80-SC	PRS	2	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 1x54T5HO/UNV PSN	PRS	1	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QTP 2x54T5HO/347-480 PSN HT	PRS	2	Series	347	480	347	480
OSRAM SYLVANIA	QTP 4x54T5HO/UNV PSN HT W	PRS	4	Series	✓	P	✓	P
Philips-Advance	HCN-2S54-90C-WL	PS	2	Series	✗	✗	✗	✗
Philips-Advance	HCN-2S54-90C-WL-Rev.A	PS			✓	✓	✓	✓
Philips-Advance	HCN-4S54-90C-2LS-G	PS	4	Series	✗	✗	✗	✗
Philips-Advance	ICN-2S54-90C-N (Rev. A)	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-90C-T	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-N	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-T	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-4S54-90C-2LS (Rev. F)	PS	4	Series	✓	✓	✓	✓
Philips-Advance	ICN-4S54-90C-2LS-G (Rev. B & Rev. J)	PS	4	Series	✗	✗	✗	✗
Philips-Advance	ICRP-4PSP54-90C	PS	4	Series	✗	✗	✗	✗
Plusrite	BAF254PS/MV	PS	2	Series	✓	✓	✓	✓
Plusrite	BAF454PS/MV	PS	4	Series	✓	✓	✓	✓
Robertson	PSL254T5MV	PS	2	Series	✓	P	✓	✓
Robertson	PST154T5MVW	PS	1	NA	NA	NA	✓	✓
Robertson	PSY454T5MVEL(3P20147)	PS	4	Series	✓	✓	✓	✓
Standard Products	E254T5HOPS347/N/XTRM	PS	2	Series	347	NA	347	NA
Standard Products	E454T5HOPS347/N/XTRM	PS	2	Series	347	NA	347	NA
SUNPARK	U-2/54T5HO	PS	2	Series	✓	✓	✓	✓
TCP	E2P54PRSUNVE	PS	2	Series	✓	✓	✓	✓
Ultrasave	ER254120MHT-W	PS	2	Series	✗	✗	✓	✓
Ultrasave	ER454120MHT-W	PS	4	Series	✓	✓	✓	✓
Ultrasave	ER454347HT-W	PS	4	Series	347	NA	347	NA
Universal Lighting Technologies	B254PUNVHB-D	PS	2	Series	✗	✗	✗	✗
Universal Lighting Technologies	B454PUNVHB-E	PRS	4	Series	✗	✗	✗	✗
Universal Lighting Technologies	B454PUNV-E	PRS	4	Series	✗	✗	✗	✗

✓ = Compatible ✗ = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable



25W LED T5 Direct Fit (LED25WT5HO/46/8xx-G8DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
Universal Lighting Technologies	B254PUNV-D	PS	2	Series	X	X	X	X
Watran	DB-254HO-MV-TP-PS-SL	PS	2	Series	✓	✓	✓	✓
Watran	DB-4M54-PS-MV-90	PS	4	Series	✓	P	✓	✓

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

11W LED T5 Direct Fit (LED11WT5HO/22/8XX-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
KEYSTONE	KTEB-224HO-UV-TP-PS/LS	PS	2	Series	NA	NA	NA	NA
KEYSTONE	KTEB-239HO-UV-PS-SL	PS	2	Series	✓	P	✓	✓
Philips-Advance	ICN-2S24-N	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S39-N	PS	2	Series	✓	P	✓	✓
Robertson	PSA239T5MV(3P20139)	PS	2	Series	✓	P	✓	P
Ultrasave	ER221347MHT	PS	2	Series	X	X	X	X

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

12.5W LED T5 Direct Fit (LED12.5WT5HE/46/8XX-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
KEYSTONE	KTEB-128-1-TP-FC-PH	PS	2	Series	✓	NA	✓	NA
KEYSTONE	KTEB-221PS-1-TP	PS	2	Parallel	✓	NA	✓	NA
OSRAM SYLVANIA	QHE 2x28T5/UNV PSN	PS	2	Series	✓	✓	✓	✓
OSRAM SYLVANIA	QHE 2x28T5/UNV PS90-SC	PRS	2	Series	✓	X	✓	✓
OSRAM SYLVANIA	QTP 2x28T5/UNV PS95-SC	PS	2	Series	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2x28T5/UNV PSN	PRS	2	Series	✓	P	✓	✓
Philips-Advance	ICN-2S28-N	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S28-T	PS	2	Series	✓	✓	✓	✓
SOLA	E-725-U-228-R1-S	PRS	2	Series	✓	X	✓	✓
Standard Products	E228T5PS120-277/N/BULK	PS	2	Series	✓	✓	✓	✓
Universal Lighting Technologies	B228PUNV-C	PRS	2	Series	X	X	X	X

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

25W LED T5 Direct Fit (LED25WT5HO/46/8XX-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
AC ELECTRONICS	ESD-A54T5S	PS	2	Series	X	X	X	X
EIKO	PM-2X54T5 UNV PS	PS	2	Series	✓	✓	✓	✓
EIKO	PM-4X54T5 UNV PS	PS	4	Series	✓	✓	✓	✓
ESPEN	VE254MVHRP	PS	2	Series	✓	✓	✓	✓
ESPEN	VE254MVHRP(11101)	PS	2	Series	✓	X	✓	✓
ESPEN	VE454MVHRP(11047)	PS	4	Series	✓	✓	✓	✓
ESPEN	VE454MVHRP(11100)	PS	4	Series	✓	✓	✓	✓
Fulham	RHA-UNV-254-LT5	PS	2	Series	✓	✓	✓	✓
Fulham	RHA-UNV-454-LT5	PS	4	Series	✓	✓	✓	✓
General Electric	GE254MVPS90-A	PS	2	Parallel	✓	✓	✓	✓
General Electric	GE254MVPS-D-1	PS	2	Series	✓	✓	✓	✓
General Electric	GE254PS347/480-F	PS	2	Parallel	✓	✓	✓	✓
General Electric	GE454MVPS90-E-S	PS	4	Parallel	✓	✓	✓	✓
General Electric	GE454MVPS90-F	PS	4	Parallel	✓	✓	✓	✓
General Electric	GE454PS347/480-E	PS	4	Parallel	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/54HO/PRS/MV/W/MC	PRS	2	Series	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/54HO/PRS/MV/W/SC	PRS	2	Series	✓	P	✓	✓
HOWARD INDUSTRIES	EP4/54HO/PRS/MV	PRS	4	Series	✓	✓	✓	✓
KEYSTONE	KTEB-254HO-UV-PS-SL	PS	2	Series	✓	✓	✓	X
Keystone	KTEB-254HO-UV-TP-PS	PS	2	Parallel	✓	P	✓	✓
KEYSTONE	KTEB-454HO-UV-PS	PS	4	Series	✓	✓	✓	✓

✓ = Compatible X = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

25W LED T5 Direct Fit (LED25WT5HO/46/8XX-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
Luma	BLF454-U	PS	4		X	X	✓	✓
LumaPro	4KGE7A EB-454PRS-U	PS	4	Series	✓	✓	✓	✓
Maxlite	SKEU542HOP	PS	2	Series	✓	P	✓	✓
OSRAM	QHE 1x54T5HO/UNV DIM-TC	PRS	1	n.a	X	X	X	X
OSRAM	QHE 4x54T5HO/347-480 PSN HT SCL	PRS	4	Series	347	480	X	X
OSRAM	QTP 2x54T5HO/UNV PSN HT	PRS	2	Series	✓	P	✓	✓
OSRAM	QTP 4x54T5HO/UNV PSN HT W	PRS	4	Series	✓	P	✓	P
OSRAM SYLVANIA	QHE 2x54T5HO/347-480 PSN HT MCL	PRS	2	Series	347	480	X	X
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 2x54T5HO/UNV PSN HT	PRS	2	Series	✓	P	✓	✓
OSRAM SYLVANIA	QHE 4x54T5HO/UNV PSN HT SCL[DOE]	PRS	4	Series	✓	✓	✓	✓
OSRAM SYLVANIA	QS 2x54T5HO/UNV PS80-SC	PRS	2	Series	X	X	X	X
OSRAM SYLVANIA	QTP 1x54T5HO/UNV PSN	PRS	1	NA	NA	NA	✓	✓
OSRAM SYLVANIA	QTP 2x54T5HO/347-480 PSN HT	PRS	2	Series	347	480	347	480
OSRAM SYLVANIA	QTP 4x54T5HO/UNV PSN HT W	PRS	4	Series	✓	P	✓	P
Philips-Advance	HCN-2S54-90C-WL	PS	2	Series	347	480	347	480
Philips-Advance	HCN-2S54-90C-WL-Rev.A	PS			X	X	X	X
Philips-Advance	HCN-4S54-90C-2LS-G	PS	4	Series	X	X	X	X
Philips-Advance	ICN-2S54-90C-N (Rev. A)	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-90C-T	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-N	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-2S54-T	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-4S54-90C-2LS (Rev. F)	PS	4	Series	X	X	X	X
Philips-Advance	ICN-4S54-90C-2LS-G (Rev. B & Rev. J)	PS	4	Series	✓	✓	✓	✓
Philips-Advance	ICRP-4PSP54-90C	PS	4	Series	X	X	X	X
Plusrite	BAF254PS/MV	PS	2	Series	✓	✓	✓	✓
Plusrite	BAF454PS/MV	PS	4	Series	✓	✓	✓	✓
Robertson	PSL254T5MV	PS	2	Series	✓	P	✓	✓
Robertson	PST154T5MVV	PS	1	NA	NA	NA	✓	✓
Robertson	PSY454T5MVVL(3P20147)	PS	4	Series	✓	✓	✓	✓
Standard Products	E254T5HOPS347/N/XTRM	PS	2	Series	347	NA	347	NA
Standard Products	E454T5HOPS347/N/XTRM	PS	4	Series	347	NA	347	NA
SUNPARK	U-2/54T5HO	PS	2	Series	✓	✓	✓	✓
TCP	E2P54PRSUNVE	PS	2	Series	✓	✓	X	✓
Ultrasave	ER254120MHT-W	PS	2	Series	X	X	✓	✓
Ultrasave	ER454120MHT-W	PS	4	Parallel	✓	✓	✓	✓
Universal Lighting Technologies	B254PUNVHB-D	PS	2	Series	X	X	X	X
Universal Lighting Technologies	B454PUNVHB-E	PRS	4	Series	X	X	X	X
Universal Lighting Technologies	B454PUNV-E	PRS	4	Series	X	X	X	X
Universal Lighting Technologies	B254PUNV-D	PS	2	Series	X	X	X	X
Watran	DB-254HO-MV-TP-PS-SL	PS	2	Series	✓	✓	✓	✓
Watran	DB-4M54-PS-MV-90	PS	4	Series	✓	P	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

PL REPLACEMENT LAMPS

5W LED PL Dual Mode Lamps (LED5W2PH/G23/835DM-G7B)

Manufacturer	Part Number	Volt	Lamp Base	1 Lamp		2 Lamp	
				120	277	120	277
DKY	DY-9-11W	120V	GX23/G23/G24D	✓	-	✓	-
FUHONG	PLC 13W	120V	GX23/G23/G24D	✓	-	✓	-
KEPWER	KPE-Y13-13W	120V	GX23/G23/G24D	✓	-	✓	-
KEystone	113SHPTP	120V	GX23	✓	-	✓	-
KEystone	CC579TP	120V	GX23/G23/G24D	✓	-	X	-
PHILIPS	BPL9W220VB2SC	120V	GX23/G23/G24D	✓	-	X	-
Robertson	3P10076 SP4827P	277V	G23	-	✓	-	X

✓ = Compatible X = Incompatible - = Not applicable

5W LED PL Dual Mode Lamps (LED5WPH/GX23/8xxDM-G8)

Manufacturer	Part Number	Start Method	# of Lamps	BF		Lamp Connect.	1 Lamp		2 Lamp	
				Type	Value		120	277	120	277
CAT	LO-13-TP		1				NA	NA	NA	✓
PHILIPS	H-1B13-TP-W	n.a	1	n.a	n.a	n.a	NA	NA	✓	NA
Robertson	HP213P(3P10073)	PHS	2			Series	✓	NA	✓	NA
Robertson	HP2627P	PHS	1	n.a	n.a	n.a	NA	NA	NA	✓
Robertson	O1527P(3P10104)		2				NA	✓	NA	✓
Robertson	S1P		1			n.a	NA	NA	✓	NA
Robertson	S18PSC	PHS	1			n.a	NA	NA	✓	NA
Robertson	SP4827P(3P10076)		1				NA	NA	NA	✓

✓ = Compatible ✗ = Incompatible - = Not applicable

7W LED PL Dual Mode Lamps (LED7W2PH/G(X)23/835DM-G7B)

Manufacturer	Part Number	Volt	Lamp Base	1 Lamp		2 Lamp	
				120	277	120	277
DKY	DY-9-11W	120V	GX23/G23/G24D	✓	-	✓	-
FUHONG	PLC 13W	120V	GX23/G23/G24D	✓	-	✓	-
KEPWER	KPE-Y13-13W	120V	GX23/G23/G24D	✓	-	✓	-
KEYSTONE	113SHPTP	120V	GX23	✓	-	✗	-
KEYSTONE	CC579TP	120V	GX23/G23/G24D	✓	-	✗	-
PHILIPS	BPL9W220VB2SC	120V	GX23/G23/G24D	✓	-	✓	-
Robertson	3P10076 SP4827P	277V	G23	-	✓	-	✗

✓ = Compatible ✗ = Incompatible - = Not applicable

12W LED PL Dual Mode Lamps (LED12W4Px/G24Q/8xxDM-G7)

Manufacturer	Part Number	Volt	1 Lamp		2 Lamp	
			120	277	120	277
CH	ACT2S26PSUNV	120-277V	✓	✓	✓	✓
FULHAM	RHA-UNV-213-C	120-277V	✗	✗	✗	✓
FULHAM	RHA-UNV-218-C	120-277V	✗	✗	✓	✓
FULHAM	RHA-UNV-226-C	120-277V	✗	✗	✗	✓
FULHAM	RHA-UNV-242-C	120-277V	✗	✗	✓	✓
FULHAM	WH2-120-C	120-277V	✓	✗	✓	✗
FULHAM	WH2-120-L	120-277V	✓	✗	✓	✗
FULHAM	WH2-227-L	120-277V	✗	✓	✗	✗
FULHAM	WH3-120-C	120-277V	✓	✗	✓	✗
FULHAM	WH3-227-L	120-277V	✗	✓	✗	✓
FULHAM	WH4-227-L	120-277V	✗	✓	✗	✓
GE	GEC218MVPSBES	120-277V	✓	✓	✓	✓
HATCH	HC226PS/UV/D	120-277V	✓	✓	✓	✓
HOWARD INDUSTRIES	EP/2/26CF/MV/2	120-277V	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/13CF/MV	120-277V	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/18CF/MV	120-277V	✓	✓	✓	✓
KEYSTONE	113SHPTP	120-277V	✓	-	✗	-
KEYSTONE	CC579TP	120-277V	✗	-	✗	-
KEYSTONE	KTEB-213-UV-PS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-218-UV-PS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-218-UV-RS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-226-UV-PS-DW	120-277V	✓	✓	✓	✓
LUMA PRO	16X954	120-277V	✓	✗	✓	✓
LUMA PRO	16X959	120-277V	✓	✓	✓	✓
LUMA PRO	4KGJ7	120-277V	✓	✓	✓	✓
LUMA PRO	4KGJ8	120-277V	✓	✓	✓	✓
OSRAM/SYLVANIA	QTP1/2X13CF/UNVDM	120-277V	✓	✓	✓	✓
OSRAM/SYLVANIA	QTP1/2X18CF/UNVDM	120-277V	✓	✓	✓	✓
OSRAM/SYLVANIA	QTP2X26CF/UNVDM	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S13-H1-LD	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S18-H1-LD	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S26-H1-LD	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S42-M2-LD	120-277V	✓	✗	✓	✓
robertson	SP4827P (3P10076)	277V	-	✗	-	✗
STANDARD	31279STD	120-277V	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible - = Not applicable

12W LED PL Dual Mode Lamps (LED12W4Px/G24Q/8xxDM-G7)

Manufacturer	Part Number	Volt	1 Lamp		2 Lamp	
			120	277	120	277
STANDARD	31527STD	120-277V	X	✓	X	✓
UNIVERSAL/TRIAD	C213UNVME	120-277V	✓	✓	✓	✓
UNIVERSAL/TRIAD	C218UNVME	120-277V	✓	✓	✓	✓
UNIVERSAL/TRIAD	C242UNVME	120-277V	✓	X	✓	✓
UNIVERSAL/TRIAD	C2642UNVME	120-277V	✓	✓	✓	✓

✓ = Compatible X = Incompatible - = Not applicable

12W LED PL Dual Mode Lamps (LED12W2PH/GX23/8xxDM-G7)

Manufacturer	Part Number	Volt	1 Lamp		2 Lamp	
			120	277	120	277
KEYSTONE	113SHPTP*	120-277V	✓	-	-	-
KEYSTONE	CC579TP	120-277V	X	-	X	-
ROBERTSON	SP4827P (3P10076)	277V	-	X	-	X

✓ = Compatible X = Incompatible - = Not applicable

*LED12WxPH/GX23/8xxDM-G7 is compatible with most 13W magnetic ballasts in addition to this ballast.

12W LED PL Dual Mode Lamps (LED12W2PH/G24D/8xxDM-G7)

Manufacturer	Part Number	Volt	Lamp Base	1 Lamp		2 Lamp	
				120	277	120	277
KEYSTONE	113SHPTP	120V	GX23	✓	-	X	-
ROBERTSON	SP4827P(3P10076)	277V	G23	-	X	-	X

✓ = Compatible X = Incompatible - = Not applicable

9W LED PL 4-Pin Direct Replacement Lamps (LED9W4Px/8xx-G7)

Manufacturer	Part Number	Start Method	# of Lamps	Target Replacement Lamp Type	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
AC ELECTRONICS	CSD-UV42PS	PS	2	26W*2, 26W*1, 32W*2, 32W*1, 42W*2, 42W*1	Series	✓	P,T	T	NA
AC ELECTRONICS	CSS-UV42PS	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	T	NA
DAMAR	23350D	PS	2	13W*2, 13W*1, 18W*2, 18W*1	Series	✓	✓	✓	✓
ESPEN	VE118120MR	PS	1	18W*1	n.a	NA	NA	✓	✓
ESPEN	VE126120MR	PS	1	26W*1	n.a	NA	NA	✓	✓
ESPEN	VE218120MR-1	PS	2	18W*2	Series	NA	NA	✓	✓
Fulham	RHA-UNV-213-C	PS	2	13W*2, 13W*1	Series	✓	P	✓	NA
Fulham	RHA-UNV-218-C	PS	2	18W*2, 18W*1	Series	✓	✓	P,T	NA
Fulham	RHA-UNV-226-C	PS	2	26W*2, 26W*1, 32W*1, 42W*1"	Series	✓	✓	✓	X
Fulham	RHA-UNV-242-C	PS	2	26W*2, 32W*2, 42W*2, 42W*1	Series	✓	P	P,T	NA
Fulham	WH2-120-C	IS	2	13W*2, 13W*1, 18W*2, 8W*1, 26W*1	Parallel	T	NA	P,T	NA
Fulham	WH2-120-L	IS	2	13W*2, 13W*1, 18W*2, 18W*1, 26W*1	Parallel	T	NA	P,T	NA
Fulham	WH3-120-L	IS	2	26W*2, 32W*1, 42W*1	Parallel	T	NA	X	NA
Fulham (PONY)	NPY-120-126CFL	RS	1	26W*1, 32W*1	n.a	NA	NA	P,T	NA
Fulham (PONY)	NPY-120-226CFL		2	26W*2		P,T	NA	✓	✓
Fulham(WORKHORSE)	WH3-120-C	IS	2	18W*2, 26W*1, 32W*1	Parallel	T	NA	T	NA
GE	GEC226-MVPS-3W	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	P,T	✓	P
General Electric	GEC242-MVPS-3W	PS	2	26W*2, 32W*2, 42W*2, 42W*1	Series	✓	P,T	✓	P
HATCH	HC213PS/UV/D	PS	2	13W*2, 13W*1, 18W*1	Series	✓	T	✓	T
HATCH	HC218PS/UV/D	PS	2	18W*2, 18W*1, 26W*1	Series	✓	✓	✓	✓
HATCH	HC226PS/UV/D	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	P	✓	✓
HATCH	HC242PS/UV/D	PS	2	26W*2, 32W*2, 42W*2	Series	✓	P	✓	✓
HOWARD INDUSTRIES	EP2/13CF/MV/2	PS	2	13W*2, 13W*1, 18W*1	Series	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/26CF/MV/2	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	P	✓	✓
HOWARD INDUSTRIES	EP2/42CF/MV/2	PS	2	26W*2, 26W*1, 32W*2, 32W*1, 42W*2, 42W*1	Series	✓	P	✓	P
KEYSTONE	KTEB-126-1-TP	PS	1	26W*1	n.a	NA	NA	✓	✓
KEYSTONE	KTEB-126-1-TP-SC-RJS /HB	PS	1	26W*1	n.a	NA	NA	✓	✓
KEYSTONE	KTEB-142T-1-TP-SC /HB	PS	1	26W*1, 32W*1, 42W*1	n.a	NA	NA	✓	✓
KEYSTONE	KTEB-218-UV-PS-DW	PS	2	18W*2, 18W*1, 26W*1	Series	✓	✓	✓	✓
KEYSTONE	KTEB-218-UV-RS-DW	RS	2	18W*2, 18W*1, 26W*1	Series	✓	✓	✓	✓
KEYSTONE	KTEB-226-1-TP	PS	2	26W*2	Series	NA	NA	✓	✓
KEYSTONE	KTEB-226-UV-PS-DW	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	P	✓	✓

✓ = Compatible X = Incompatible P = PF < 0.85 T = THD > 30% NA = Not applicable

9W LED PL 4-Pin Direct Replacement Lamps (LED9W4Px/8xx-G7)

Manufacturer	Part Number	Start Method	# of Lamps	Target Replacement Lamp Type	Lamp Connect.	1 Lamp		2 Lamp	
						120	277	120	277
KEYSTONE	KTEB-226-UV-RS-DW	RS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	✓
KEYSTONE	KTEB-242-UV-RS-DW	RS	2	26W*2, 26W*1, 32W*2, 32W*1, 42W*2, 42W*1	Series	NA	NA	✓	✓
MOTOROLA	M2-CF-26-B-S-277	RS	2	26W*2	Series	NA	NA	✓	✓
OSRAM SYLVANIA	QTP 1/2x18CF/UNV DM	RS	2	18W*2, 18W*1	Series	✓	✓	✓	P
OSRAM SYLVANIA	QTP 2x26/32/42CF/UNV TM	RS	2	26W*2, 32W*2, 42W*2	Series	✗	P,T	✓	P
OSRAM SYLVANIA	QTP 2x26/32/42CFUNV DM	PS	2	26W*2, 32W*2, 42W*2	Series	✗	P,T	✗	✗
OSRAM SYLVANIA	QTP 2x26/32/42CFUNV DM PEM	PS	2	26W*2, 32W*2, 42W*2	Series	✗	P,T	✓	✓
OSRAM SYLVANIA	QTP 2x26CF/UNV DM	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	NA
Philips-Advance	ICF-2S13-H1-LD	PS	2	13W*2, 13W*1	Series	✓	✓	✓	✓
Philips-Advance	ICF-2S13-H1-LD	PS	2	13W*2, 13W*1	Series	✓	✓	✓	✓
Philips-Advance	ICF-2S13-M1-BS	PS	2	13W*2, 13W*1	Series	✓	✓	P,T	NA
Philips-Advance	ICF-2S13-M1-BS-QS	RS	2	13W*2, 13W*1	Series	✓	✓	✓	✓
Philips-Advance	ICF-2S18-H1-LD	PS	2	18W*2	Series	✓	✓	✗	✗
Philips-Advance	ICF-2S26-H1-LD	PS	2	26W*2, 26W*1	Series	✓	✓	✗	✗
Philips-Advance	ICF-2S26-M1-BS	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	T	NA
Philips-Advance	ICF-2S42-90C-M2-BS	PS	2	26W*2, 32W*2, 42W*2		✗	✗	✓	✓
Philips-Advance	ICF-2S42-M2-LD	PS	2	26W*2, 32W*2, 42W*2	Series	✓	P	P,T	NA
Philips-Advance	RCF-2S26-M1-LS-QS	RS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	NA	P,T	NA
Philips-Advance	REB-113-M6-BLS	IS	1	13W*1	n.a	NA	NA	✓	✓
ProLume	EP2CF13PS/MV/DC/K	PS	2	13W*2, 13W*1, 18W*1	Series	✓	✓	P,T	NA
ProLume	EP2CF18PS/MV/DC/K	PS	2	18W*2, 18W*1, 26W*1	Series	✓	✓	✓	✓
ProLume	EP2CF26PS/MV/DC/K	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	✓
ProLume	EP2CF42PS/MV/DC/K	PS	2	26W*2, 26W*1, 32W*2, 32W*1, 42W*2, 42W*1	Series	✓	P	P,T	NA
Robertson	RSO142TR120	RS	1	26W*1, 32W*1, 42W*1	n.a	NA	NA	✓	✓
SUNPARK	LC 12010T	PS	1	13W*1	n.a	NA	NA	✓	✓
SUNPARK	SL27T	PS	2	13W*2, 18W*2	Series	NA	NA	✓	✓
SUNPARK	U-213PS	PS	2	13W*2, 13W*1	Series	✗	✗	P,T	NA
SUNPARK	U-218PS-W	PS	2	18W*2, 18W*1	Series	✓	✓	✓	✓
SUNPARK	U-226PS-W	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	✓
TOPAZ	B2642UNV/ME-TPZ	PS	2	18W*2, 26W*2, 26W*1, 32W*1, 42W*1	Series	✓	P,T	P,T	NA
TOSPO	TP120-2/26 RS UPL	RS	2	26W*2	Series	NA	NA	✗	✗
Universal Lighting Technologies	C213UNVME	PS	2	13W*2, 13W*1	Series	✓	✓	✓	✓
Universal Lighting Technologies	C218UNVBE	PS	2	18W*2, 18W*1	Series	✓	✓	✓	✓
Universal Lighting Technologies	C218UNVME	PS	2	18W*2, 18W*1	Series	✓	✓	✓	✓
Universal Lighting Technologies	C242UNVMES	PS	2	26W*2, 6W*1, 32W*2, 32W*1, 42W*2, 42W*1	Series	✓	P	✓	✓
Universal Lighting Technologies	C2642UNVBE	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	✓
Universal Lighting Technologies	C2642UNVME	PS	2	26W*2, 26W*1, 32W*1, 42W*1	Series	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible P = PF <0.85 T = THD >30% NA = Not applicable

12W LED PL Direct Replacement Lamps (LED12WxPx/Gxxx/8xxDM-G7)

Manufacturer	Part Number	Volt	1 Lamp		2 Lamp	
			120	277	120	277
CH	ACT2S26PSUNV	120-277V	✓	✓	✓	✓
FULHAM	RHAUNV226C	120-277V	✗	✗	✗	✓
FULHAM	WH2120L	120-277V	✓	✗	✓	✗
FULHAM	WH2120C	120-277V	✓	✗	✓	✗
FULHAM	RHAUNV213C	120-277V	✗	✗	✗	✓
FULHAM	RHA-UNV-218-C	120-277V	✗	✗	✓	✓
FULHAM	WH3-120-C	120-277V	✓	✗	✓	✗
FULHAM	WH2-277-L	120-277V	✗	✓	✗	✗
FULHAM	WH3-277-L	120-277V	✗	✓	✗	✓
FULHAM	WH4-277-L	120-277V	✗	✓	✗	✓
FULHAM	RHA-UNV-242-C	120-277V	✗	✗	✓	✓
GE	GEC218MVPSBES	120-277V	✓	✓	✓	✓
HATCH	HC226PS/UV/D	120-277V	✓	✓	✓	✓
HOWARD INDUSTRIES	EP2/13CF/MV	120-277V	✓	✓	✓	✓

12W LED PL Direct Replacement Lamps (LED12WxPx/Gxxx/8xxDM-G7)

Manufacturer	Part Number	Volt	1 Lamp		2 Lamp	
			120	277	120	277
HOWARD INDUSTRIES	EP2/18CF/MV	120-277V	✓	✓	✓	✓
HOWARD INDUSTRIES	EP/2/26CF/MV/2	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-213-UV-PS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-218-UV-PS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-226-UV-PS-DW	120-277V	✓	✓	✓	✓
KEYSTONE	KTEB-218-UV-RS-DW	120-277V	✓	✓	✓	✓
LUMAPRO	16X954	120-277V	✓	✗	✓	✓
LUMAPRO	4KGJ7	120-277V	✓	✓	✓	✓
LUMAPRO	4KGJ8	120-277V	✓	✓	✓	✓
LUMAPRO	16X959	120-277V	✓	✓	✓	✓
ORSRAM/SYLVANIA	QTP1/2X18CF/UNVDM	120-277V	✓	✓	✓	✓
ORSRAM/SYLVANIA	QTP2X26CF/UNVDM	120-277V	✓	✓	✓	✓
ORSRAM/SYLVANIA	QTP1/2X13CF/UNVDM	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S18-H1-LD	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S26-H1-LD	120-277V	✓	✓	✓	✓
PHILIPS/ADVANCE	ICF-2S42-M2-LD	120-277V	✓	✗	✓	✓
PHILIPS/ADVANCE	ICF-2S13-H1-LD	120-277V	✓	✓	✓	✓
STANDARD	31279STD	120-347V	✓	✓	✓	✓
STANDARD	31527STD	120-347V	✗	✓	✗	✓
UNIVERSAL/TRIAD	C213UNVME	120-277V	✓	✓	✓	✓
UNIVERSAL/TRIAD	C218UNVME	120-277V	✓	✓	✓	✓
UNIVERSAL/TRIAD	C242UNVME	120-277V	✓	✗	✓	✓
UNIVERSAL/TRIAD	C2642UNVME	120-277V	✓	✓	✓	✓

PLL REPLACEMENT LAMPS

23W LED PLL Lamps (LED23W/PLL/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
AC ELECTRONICS	CSS-UV42PS	PS	2	Series	✓	✓	✓	✓
AC ELECTRONICS	CSD-UV42PS	PS	2	Series	✓	✓	✓	✓
Fulham	RHA-UNV-242-C	PS	2	Series	✓	✓	✓	✓
General Electric	GEC226-MVPS-3W	PS	2	Series	✓	✓	✓	✓
General Electric	GEC240MAX-A	IS	2	Parallel	✓	✓	✓	✓
General Electric	GEC140MAX-A	IS	1	n,a	NA	NA	✓	✓
General Electric	GEC340MAX-A	IS	3	Parallel	✓	✗	✓	✓
General Electric	GEC240MVPS-A	PRS	2	Series	✓	✓	✓	✓
HATCH	HC226PS/UV/D	PS	2	Series	✓	✓	✓	✓
HATCH	HC242PS/UV/D	PS	2	Series	✗	✗	✓	✓
HOWARD INDUSTRIES	EP2/42CF/MV/2	PS	2	Series	✓	✓	✓	✓
KEYSTONE	KTEB-242-UV-RS-DW	RS	2	Series	✗	✗	✗	✗
KEYSTONE	KTEB-242-UV-PS-DW	PS	2	Series	✓	✓	✓	✓
KEYSTONE	KTEB-142T-1-TP-SC /HB	PS	1	NA	NA	NA	✗	NA
LUTRON	EC5T540GUNV3L	PS	3	Series	✗	✗	✗	✗
OSRAM	QHE 2x40DL/UNV ISN-SC	IS	2	Parallel	✓	✓	✓	✓
OSRAM	QHE 1x40DL/UNV ISN-SC	IS	1	NA	NA	NA	✓	✓
OSRAM	QHE 3x40DL/UNV ISN-SC	IS	3	Parallel	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2x26/32/42CFUNV DM PEM	PS	2	Series	✓	✗	✓	✓
OSRAM SYLVANIA	QTP 2x26CF/UNV DM	PS	2	Series	✓	✓	✓	✓
OSRAM SYLVANIA	QTP 2x26/32/42CFUNV DM	PS	2	Series	✓	✗	✓	✓
OSRAM SYLVANIA	QT 2x40/120 DL	IS	2	Parallel	✓	NA	✓	NA
OSRAM SYLVANIA	QTP 1x40TT5/120 PSN-F	PS	1	n,a	NA	NA	✗	✗
OSRAM SYLVANIA	QTP 2x40TT5/120 PSN-F	PS	2	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 1x40TT5/277 PSN-F	PS	1	n,a	NA	NA	✗	✗
OSRAM SYLVANIA	QTP 2x40TT5/277 PSN-F	PS	2	Series	✗	✗	✗	✗
OSRAM SYLVANIA	QTP 3x40TT5/277 PSN-B	PS	3	Series	✗	✗	✗	✗
Philips-Advance	ICF-2S42-M2-LD	PS	2	Series	✓	✓	✓	✓
Philips-Advance	ICN-3TTP40-SC	IS	3	Parallel	✗	✗	✗	✗
Philips-Advance	ICN-1TTP40-SC	IS	1	n,a	NA	NA	✓	✓

✓ = Compatible ✗ = Incompatible NA = Not applicable

23W LED PLL Lamps (LED23W/PLL/8xx-G7DR)

Manufacturer	Part Number	Start Method	# of Lamps	Lamp Connect.	1 Lamp		2 Lamp	
					120	277	120	277
Philips-Advance	ICN-2TTP40-SC	IS	2	Parallel	✗	✗	✗	✗
Philips-Advance	RCN-2TTP40-SC	IS			✓	NA	✓	NA
Philips-Advance	VEL-2TTS40	PS	2	Series	NA	✗	NA	✗
ProLume	EP2CF42PS/MV/DC/K	PS	2	Series	✗	✗	✓	✓
Universal Lighting Technologies	C242UNVMES	PS	2	Series	✓	✓	✓	✓
Universal Lighting Technologies	C240PUNVHP-B	PRS	2	Series	✓	✓	✓	✓

✓ = Compatible ✗ = Incompatible NA = Not applicable