

Low Power 1-Lamp-T8

STANDARD ELECTRONIC

INSTANT START

FEB 2001

EL1/32IS-120

One Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.16	0.19	0.19	0.20	0.22	0.23
Input Watts (ANSI)	17	21	22	23	26	27
Power Factor	>89%	>93%	>95%	>95%	>98%	>98%
Total Harmonic Distortion Rating	<29%	<25%	<24%	<27%	<20%	<20%
Ballast Factor	85%	82%	82%	84%	77%	77%
Ballast Efficacy Factor	5.00	3.90	3.73	3.65	2.96	2.85
System Lumens Per Watt	71	76	77	83	85	85
Initial System Lumens (1)	1200	1600	1700	1900	2200	2300

EL1/32IS-277

One Lamp Operation, 277V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.07	0.08	0.08	0.08	0.09	0.10
Input Watts (ANSI)	17	21	22	23	26	27
Power Factor	>83%	>91%	>92%	>92%	>98%	>98%
Total Harmonic Distortion Rating	<26%	<24%	<23%	<26%	<20%	<20%
Ballast Factor	85%	82%	82%	84%	77%	77%
Ballast Efficacy Factor	5.00	3.90	3.73	3.65	2.96	2.85
System Lumens Per Watt	71	76	77	83	85	85
Initial System Lumens (1)	1200	1600	1700	1900	2200	2300

(1) Based on premium 4', T8 lamp initial lumen ratings, produced by the GE, OSRAM/SYLVANIA, or PHILIPS lamp divisions. Shaded area indicates primary lamp design. Actual Initial Lumens produced will be determined by the specific lamp manufacturer and the rated initial lumens for the lamp selected.



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Low Power 2-Lamp-T8

STANDARD ELECTRONIC

INSTANT START

EL2/32IS-120

Two Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.29	0.35	0.36	0.39	0.43	0.44
Input Watts (ANSI)	32	41	42	46	51	52
Power Factor	>91%	>96%	>97%	>97%	>98%	>98%
Total Harmonic Distortion Rating	<24%	<21%	<19%	<17%	<16%	<20%
Ballast Factor	85%	83%	82%	84%	77%	77%
Ballast Efficacy Factor	2.66	2.02	1.95	1.83	1.51	1.48
System Lumens Per Watt	75	80	81	85	84	88
Initial System Lumens (1)	2400	3300	3400	3900	4300	4600

One Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.22	0.26	0.26	0.29	0.30	0.30	0.35
Input Watts (ANSI)	21	27	28	31	33	34	40
Power Factor	>80%	>85%	>87%	>87%	>92%	>93%	>96%
Total Harmonic Distortion Rating	<28%	<26%	<26%	<25%	<24%	<23%	<20%
Ballast Factor	107%	104%	103%	105%	97%	97%	93%
Ballast Efficacy Factor	5.10	3.85	3.68	3.39	2.94	2.85	2.33
System Lumens Per Watt	71	78	79	77	82	85	85
Initial System Lumens (1)	1500	2100	2200	2400	2700	2900	3400

EL2/32IS-277

Two Lamp Operation, 277 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.12	0.15	0.15	0.17	0.18	0.19
Input Watts (ANSI)	32	41	42	46	51	51
Power Factor	>91%	>96%	>97%	>97%	>98%	>98%
Total Harmonic Distortion Rating	<25%	<21%	<19%	<17%	<16%	<20%
Ballast Factor	85%	83%	82%	84%	77%	77%
Ballast Efficacy Factor	2.66	2.02	1.95	1.83	1.51	1.51
System Lumens Per Watt	75	80	81	85	84	90
Initial System Lumens (1)	2400	3300	3400	3900	4300	4600

One Lamp Operation, 277 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.09	0.11	0.11	0.13	0.13	0.13	0.15
Input Watts (ANSI)	21	27	28	31	33	34	40
Power Factor	>80%	>85%	>87%	>87%	>92%	>93%	>96%
Total Harmonic Distortion Rating	<31%	<28%	<27%	<25%	<24%	<24%	<21%
Ballast Factor	103%	101%	100%	102%	97%	97%	92%
Ballast Efficacy Factor	4.90	3.74	3.57	3.29	2.94	2.85	2.30
System Lumens Per Watt	67	74	75	74	82	85	85
Initial System Lumens (1)	1400	2000	2100	2300	2700	2900	3400

(1) Based on premium 4', T8 lamp initial lumen ratings, produced by the GE, OSRAM/SYLVANIA, or PHILIPS lamp divisions. Shaded area indicates primary lamp design. Actual Initial Lumens produced will be determined by the specific lamp manufacturer and the rated initial lumens for the lamp selected.

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Low Power 3-Lamp-T8

STANDARD ELECTRONIC

INSTANT START

EL3/32IS-120

Three Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.43	0.52	0.53	0.56	0.64	0.65
Input Watts (ANSI)	46	59	61	65	76	76
Power Factor	>90%	>94%	>97%	<97%	>98%	>98%
Total Harmonic Distortion Rating	<25%	<22%	<20%	<21%	<18%	<20%
Ballast Factor	85%	82%	82%	86%	77%	77%
Ballast Efficacy Factor	1.85	1.39	1.34	1.32	1.01	1.01
System Lumens Per Watt	78	83	85	91	86	91
Initial System Lumens (1)	3600	4900	5200	5900	6500	6900

Two Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.39	0.45	0.45	0.46	0.51	0.52	0.60
Input Watts (ANSI)	37	47	49	50	58	60	71
Power Factor	>80%	>87%	>90%	<92%	>95%	>96%	>98%
Total Harmonic Distortion Rating	<29%	<27%	<26%	<29%	<24%	<23%	<17%
Ballast Factor	100%	97%	96%	95%	91%	91%	86%
Ballast Efficacy Factor	2.70	2.06	1.96	1.90	1.57	1.52	1.21
System Lumens Per Watt	76	83	82	88	88	92	90
Initial System Lumens (1)	2800	3900	4000	4400	5100	5500	6400

EL3/32IS-277

Three Lamp Operation, 277 V

(1) Based on premium 4', T8 lamp initial lumen ratings, produced by the GE, OSRAM/SYLVANIA, or PHILIPS lamp divisions. Shaded area indicates primary lamp design. Actual Initial Lumens produced will be determined by the specific lamp manufacturer and the rated initial lumens for the lamp selected.

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.18	0.22	0.23	0.24	0.28	0.28
Input Watts (ANSI)	46	59	61	65	76	76
Power Factor	>91%	>95%	>97%	<97%	>98%	>98%
Total Harmonic Distortion Rating	<25%	<22%	<20%	<21%	<18%	<20%
Ballast Factor	85%	82%	82%	86%	77%	77%
Ballast Efficacy Factor	1.85	1.39	1.34	1.32	1.01	1.01
System Lumens Per Watt	78	83	85	91	86	91
Initial System Lumens (1)	3600	4900	5200	5900	6500	6900

Two Lamp Operation, 277 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.16	0.18	0.19	0.19	0.21	0.22	0.26
Input Watts (ANSI)	37	47	49	50	58	60	71
Power Factor	>84%	>91%	>93%	<94%	>96%	>96%	>98%
Total Harmonic Distortion Rating	<29%	<27%	<26%	<29%	<24%	<23%	<17%
Ballast Factor	100%	97%	96%	94%	91%	91%	86%
Ballast Efficacy Factor	2.70	2.06	1.96	1.88	1.57	1.52	1.21
System Lumens Per Watt	76	83	82	86	88	92	90
Initial System Lumens (1)	2800	3900	4000	4300	5100	5500	6400

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Low Power 4-Lamp-T8

STANDARD ELECTRONIC

INSTANT START

EL4/32IS-120

Four Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.52	0.66	0.69	0.74	0.84	0.85
Input Watts (ANSI)	59	77	82	87	99	100
Power Factor	>93%	>97%	>98%	>98%	>98%	>98%
Total Harmonic Distortion Rating	<25%	<24%	<20%	<19%	<18%	<20%
Ballast Factor	85%	82%	82%	85%	77%	77%
Ballast Efficacy Factor	1.44	1.06	1.00	0.98	0.78	0.77
System Lumens Per Watt	81	86	84	90	87	92
Initial System Lumens (1)	4800	6600	6900	7800	8600	9200

Three Lamp Operation, 120 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.47	0.56	0.59	0.63	0.70	0.72	0.83
Input Watts (ANSI)	51	65	68	73	81	83	98
Power Factor	>90%	>95%	>96%	<96%	>97%	>97%	>98%
Total Harmonic Distortion Rating	<27%	<23%	<22%	<21%	<20%	<20%	<13%
Ballast Factor	94%	90%	90%	92%	85%	85%	81%
Ballast Efficacy Factor	1.84	1.38	1.32	1.26	1.05	1.02	0.83
System Lumens Per Watt	76	83	84	86	88	93	92
Initial System Lumens (1)	3900	5400	5700	6300	7100	7700	9000

EL4/32IS-277

Four Lamp Operation, 277 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8
Lamp Length (inches)	24	16.5	36	48	22.5	48
Lamp Watts	17	24	25	25	31	32
Line Current (amps)	0.23	0.29	0.30	0.32	0.36	0.36
Input Watts (ANSI)	59	77	82	87	98	98
Power Factor	>93%	>97%	>97%	>97%	>98%	>98%
Total Harmonic Distortion Rating	<28%	<24%	<20%	<19%	<18%	<20%
Ballast Factor	85%	82%	82%	85%	77%	77%
Ballast Efficacy Factor	1.44	1.06	1.00	0.98	0.79	0.79
System Lumens Per Watt	81	86	84	90	88	94
Initial System Lumens (1)	4800	6600	6900	7800	8600	8900

Three Lamp Operation, 277 V

Lamp Type	F17T8	FB24T8	F25T8	F25T12	FB31T8	F32T8	F40T8
Lamp Length (inches)	24	16.5	36	48	22.5	48	60
Lamp Watts	17	24	25	25	31	32	40
Line Current (amps)	0.21	0.25	0.26	0.27	0.30	0.31	0.36
Input Watts (ANSI)	51	65	68	73	81	83	98
Power Factor	>88%	>94%	>95%	>95%	>97%	>97%	>98%
Total Harmonic Distortion Rating	<30%	<24%	<23%	<21%	<20%	<20%	<17%
Ballast Factor	94%	90%	90%	92%	85%	85%	81%
Ballast Efficacy Factor	1.84	1.38	1.32	1.26	1.05	1.02	0.83
System Lumens Per Watt	76	83	84	86	88	83	92
Initial System Lumens (1)	3900	5400	5700	6300	7100	6900	9000

(1) Based on premium 4', T8 lamp initial lumen ratings, produced by the GE, OSRAM/SYLVANIA, or PHILIPS lamp divisions. Shaded area indicates primary lamp design. Actual Initial Lumens produced will be determined by the specific lamp manufacturer and the rated initial lumens for the lamp selected.

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Low Power T8

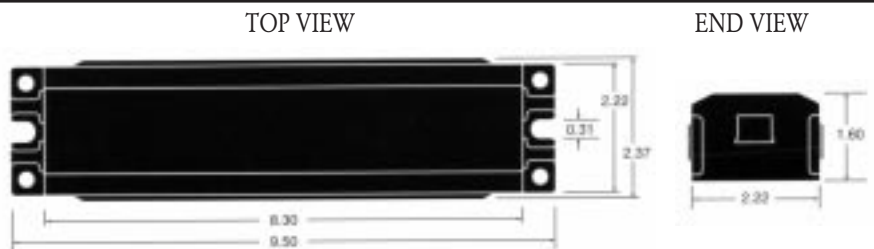
STANDARD ELECTRONIC

INSTANT START

SPECIFICATIONS

- Current Crest Factor:** Ballast shall have a Lamp Current Crest Factor of <1.7 .
- Transient Protection:** Ballast shall withstand line transients and surges as specified in ANSI C62.41-1991 (IEEE 587A for location category B, Level 3 (6,000 volts).
- EMI and RFI Limits:** Ballast shall comply with the limits of FCC Part 18C for Non-Consumer equipment.
- UL, Canadian UL, CSA:** Ballast shall be UL, Canadian UL and CSA Certified, Class P, Type 1, outdoor.
- Operating Frequency:** Ballast shall have a frequency of 20-27kHz.
- Starting Temperature:** Ballast shall have a 0°F minimum starting temperature.
- Made in U.S.A.:** Ballast shall be manufactured in the U.S.A. by Howard Industries, Inc.
- Potting:** Ballast shall contain potting compound for proper dissipation of heat, mechanical stability, and moisture protection.
- Lamp Lead Orientation:** Ballast shall have lamp leads exiting both ends of housing.
- Circuit Configuration:** Ballast shall be Instant Start with Parallel circuit configuration.
- Sound Rating:** Ballast shall be sound rated Class A.
- Power Factor:** Ballast shall have minimum Power Factor of 97% on primary lamp configuration.
- Remote Mounting:** Ballast shall operate at a maximum of 20 feet at 0°C.
- Voltage Range:** Ballast shall operate within an input voltage range of +/- 10%.
- Inrush Current:** Ballast shall have an inrush current not greater than 15 times operating current.
- Warranty:** Ballast shall have a five-year warranty.

BALLAST DIMENSIONS



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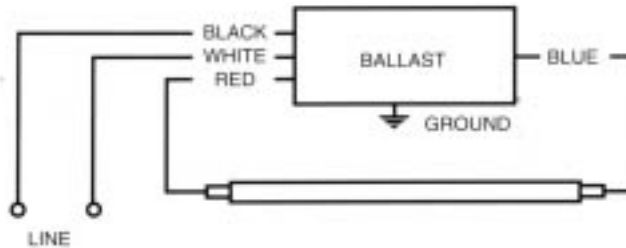
UL, Canadian UL and
CSA Certified

Low Power T8

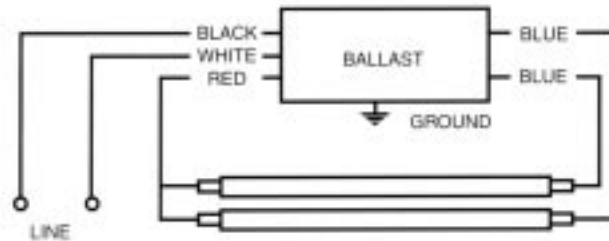
STANDARD ELECTRONIC

INSTANT START

1 Lamp Wiring Diagram

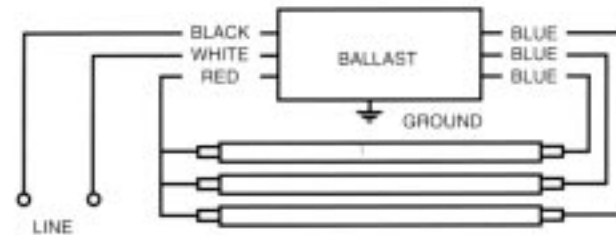


2 Lamp Wiring Diagram



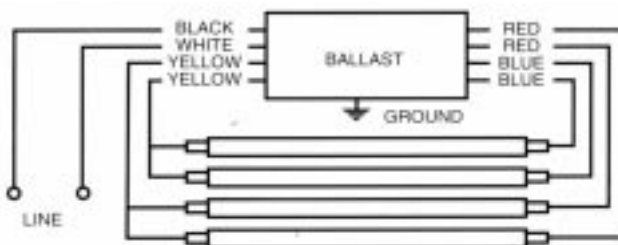
For 1-lamp operation cap one blue lead.

3 Lamp Wiring Diagram



For 2-lamp operation cap one blue lead.

4 Lamp Wiring Diagram



For 3-lamp operation cap one blue lead.

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