

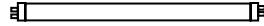


SPECIFICATION SHEET: WHSG2-UNV-T8-HB

This Is An Original Product From Fulham Co., Inc.

Description: WORKHORSE Specifier Grade Series Electronic Ballast, Drop In Replacement
For Magnetic Ballast, Parallel Lamp Operation, THD Less Than 10%

This Ballast Will Operate Following Lamps:

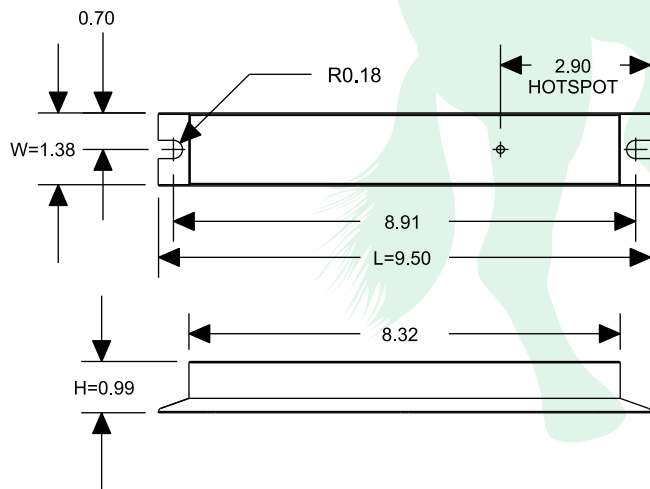


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

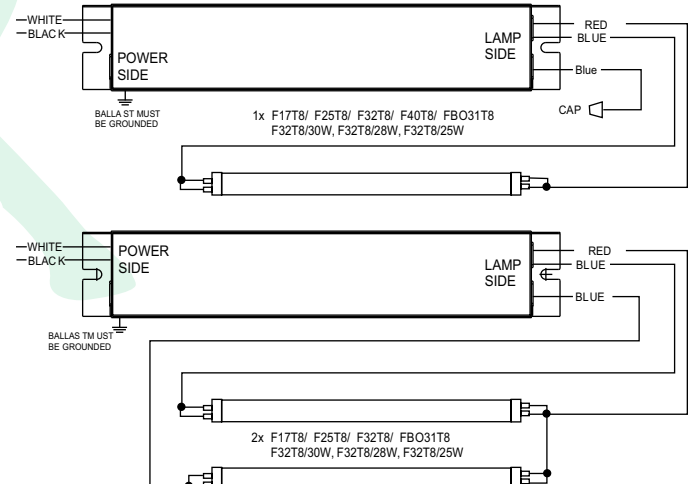
INPUT VOLT	120V $\pm$ 10%, 50/60Hz							
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	F40T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	1 (ONE)							
INPUT WATTS	25	33	45	54	44	38	39	44
LINE CURRENT	0.22	0.28	0.37	0.45	0.36	0.32	0.33	0.36
POWER FACTOR	≥ 0.95	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	1.42	1.4	1.38	1.35	1.38	1.38	1.38	1.38
BALLAST EFFICACY FACTOR	5.68	4.24	3.06	2.49	3.13	3.63	3.53	3.13
THD	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)							
SOUND RATING	"A"							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82 11-1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. STATING TEMP.	-18°C (0°F)							
MAX. CASE TEMP.	70°C (158°F)							
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION							
ENERGY STAR 4.0	-							
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24 $\pm$ 1"	24 $\pm$ 1"	46 $\pm$ 1"	32 $\pm$ 1"	-	-



NOTE: This Ballast Must Be Grounded.

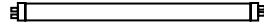


SPECIFICATION SHEET: WHSG2-UNV-T8-HB

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Description: WORKHORSE Specifier Grade Series Electronic Ballast, Drop In Replacement
For Magnetic Ballast, Parallel Lamp Operation, THD Less Than 10%

This Ballast Will Operate Following Lamps:

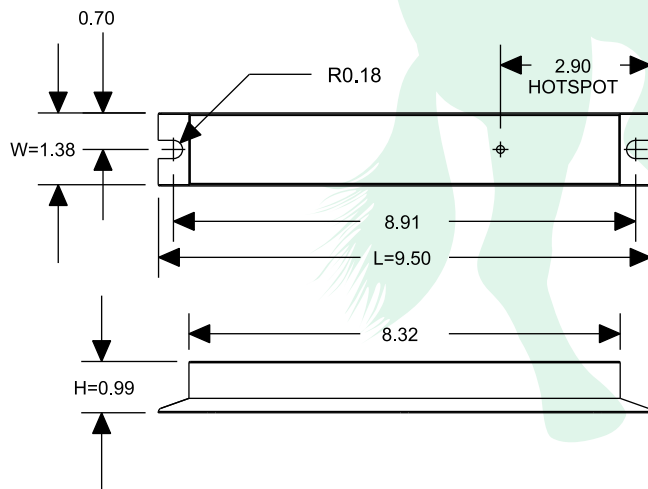


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

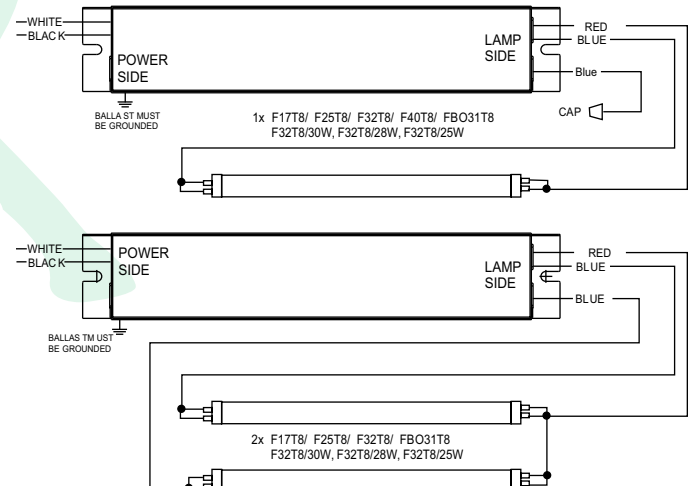
INPUT VOLT	120V $\pm$ 10%, 50/60Hz						
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	2 (TWO)						
INPUT WATTS	39	54	74	73	63	64	69
LINE CURRENT	0.33	0.45	0.62	0.58	0.53	0.54	0.58
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	1.23	1.2	1.18	1.18	1.18	1.18	1.18
BALLAST EFFICACY FACTOR	3.15	2.20	1.59	1.61	1.87	1.84	1.71
THD	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$	$\leq 10\%$
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)						
SOUND RATING	"A"						
BALLAST TYPE	INSTANT START						
VOLTAGE TRANSIENTS	ANSI C82 11-1993						
INPUT/PROTECTION	FUSE						
OUTPUT/PROTECTION	-						
MIN. STATING TEMP.	-18°C (0°F)						
MAX. CASE TEMP.	70°C (158°F)						
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION						
ENERGY STAR 4.0	-						
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR						

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24 $\pm$ 1"	24 $\pm$ 1"	46 $\pm$ 1"	32 $\pm$ 1"	-	-



NOTE: This Ballast Must Be Grounded.

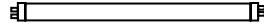


SPECIFICATION SHEET: WHSG2-UNV-T8-HB

This Is An Original Product From Fulham Co., Inc.

Description: WORKHORSE Specifier Grade Series Electronic Ballast, Drop In Replacement
For Magnetic Ballast, Parallel Lamp Operation, THD Less Than 10%

This Ballast Will Operate Following Lamps:

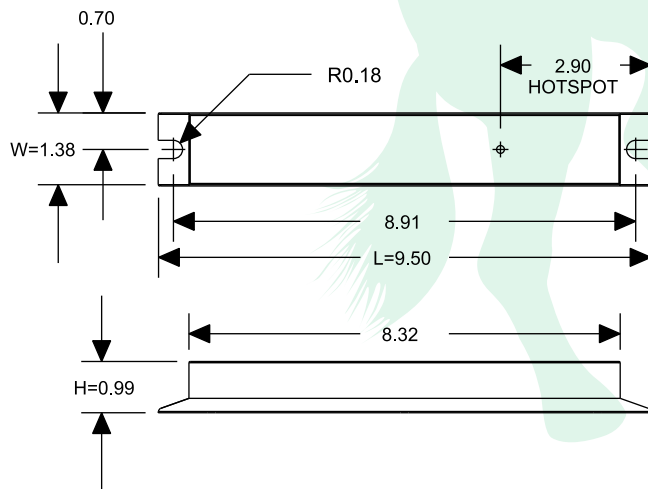


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

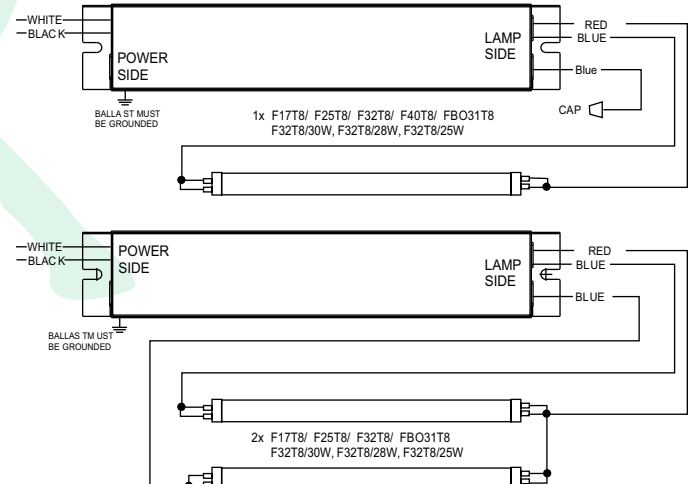
INPUT VOLT	230V $\pm$ 10%, 50/60Hz							
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	F40T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	1 (ONE)							
INPUT WATTS	25	33	45	54	44	38	39	44
LINE CURRENT	0.11	0.15	0.20	0.24	0.20	0.17	0.17	0.20
POWER FACTOR	≥ 0.95	≥ 0.96	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97
BALLAST FACTOR	1.42	1.40	1.38	1.35	1.38	1.38	1.38	1.38
BALLAST EFFICACY FACTOR	5.69	4.24	3.06	2.50	3.14	3.63	3.54	3.14
THD	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)							
SOUND RATING	"A"							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82 11-1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. STATING TEMP.	-18°C (0°F)							
MAX. CASE TEMP.	70°C (158°F)							
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION							
ENERGY STAR 4.0	-							
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24 $\pm$ 1"	24 $\pm$ 1"	46 $\pm$ 1"	32 $\pm$ 1"	-	-



NOTE: This Ballast Must Be Grounded.

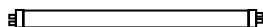


SPECIFICATION SHEET: WHSG2-UNV-T8-HB

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For Magnetic Ballast, Parallel Lamp Operation, THD Less Than 10%

This Ballast Will Operate Following Lamps:

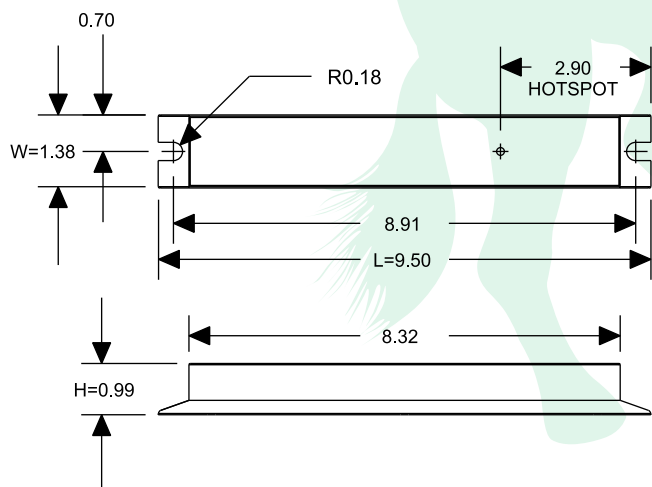


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

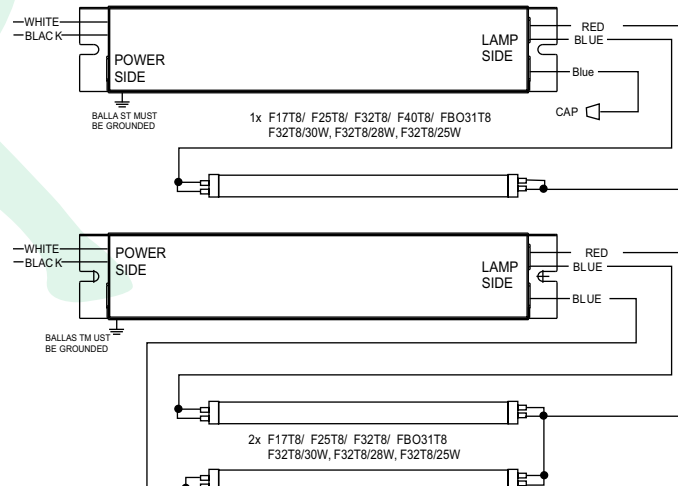
INPUT VOLT	230V $\pm$ 10%, 50/60Hz						
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	2 (TWO)						
INPUT WATTS	39	54	73	71	62	63	69
LINE CURRENT	0.18	0.24	0.32	0.31	0.28	0.28	0.31
POWER FACTOR	≥ 0.96	≥ 0.97	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.97	≥ 0.98
BALLAST FACTOR	1.23	1.20	1.18	1.18	1.18	1.18	1.18
BALLAST EFFICACY FACTOR	3.15	2.22	1.61	1.66	1.90	1.87	1.71
THD	$\leq 15\%$	$\leq 15\%$	$\leq 10\%$	$\leq 10\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)						
SOUND RATING	"A"						
BALLAST TYPE	INSTANT START						
VOLTAGE TRANSIENTS	ANSI C82 11-1993						
INPUT/PROTECTION	FUSE						
OUTPUT/PROTECTION	-						
MIN. STATING TEMP.	-18°C (0°F)						
MAX. CASE TEMP.	70°C (158°F)						
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION						
ENERGY STAR 4.0	-						
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR						

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24 $\pm$ 1"	24 $\pm$ 1"	46 $\pm$ 1"	32 $\pm$ 1"	-	-



NOTE: This Ballast Must Be Grounded.

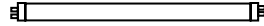


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This Ballast Will Operate Following Lamps:

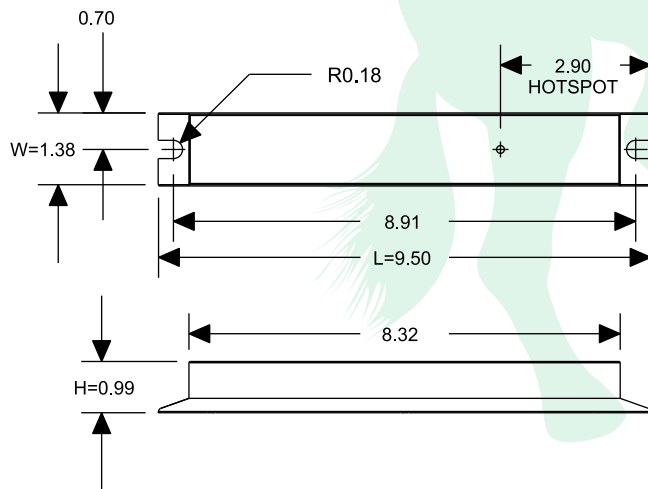


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

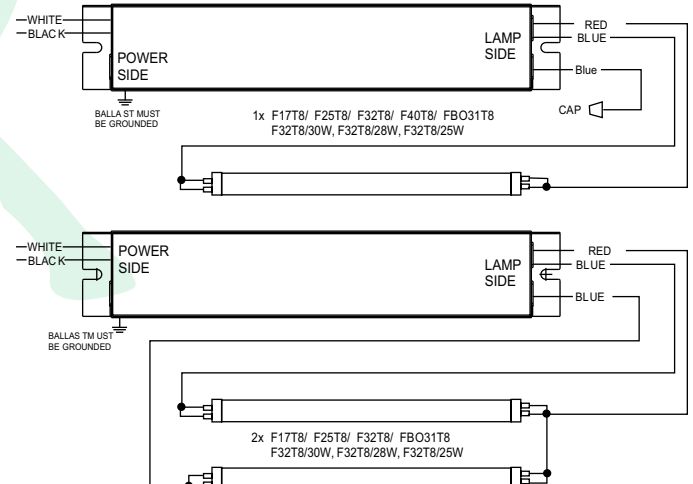
INPUT VOLT	277V ± 10%, 50/60Hz							
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	F40T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	1 (ONE)							
INPUT WATTS	25	33	45	54	44	38	39	44
LINE CURRENT	0.11	0.13	0.17	0.20	0.16	0.14	0.15	0.16
POWER FACTOR	≥ 0.95	≥ 0.96	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97
BALLAST FACTOR	1.42	1.40	1.38	1.35	1.38	1.38	1.38	1.38
BALLAST EFFICACY FACTOR	5.69	4.24	3.06	2.50	3.14	3.63	3.54	3.14
THD	≤ 15%	≤ 15%	≤ 15%	≤ 15%	≤ 15%	≤ 15%	≤ 15%	≤ 15%
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)							
SOUND RATING	"A"							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82 11-1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. STATING TEMP.	-18°C (0°F)							
MAX. CASE TEMP.	70°C (158°F)							
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION							
ENERGY STAR 4.0	-							
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24±1"	24±1"	46±1"	32±1"	-	-



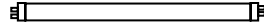


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This Ballast Will Operate Following Lamps:

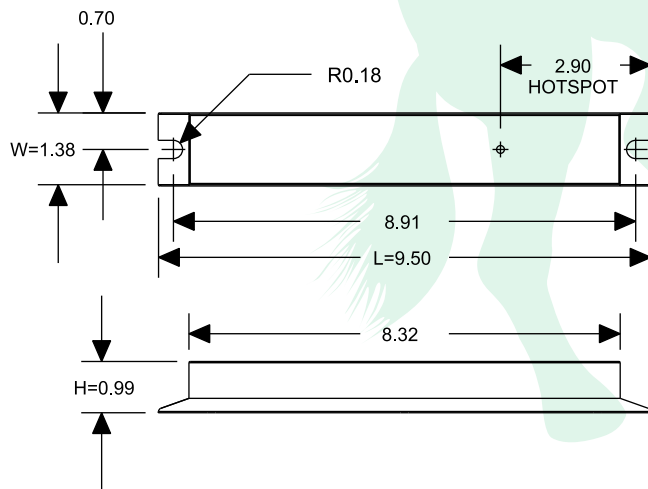


F17T8, F25T8, F32T8, FBO31T8, F40T8,
F32T8/30W, F32T8/28W, F32T8/25W

ELECTRICAL DATA

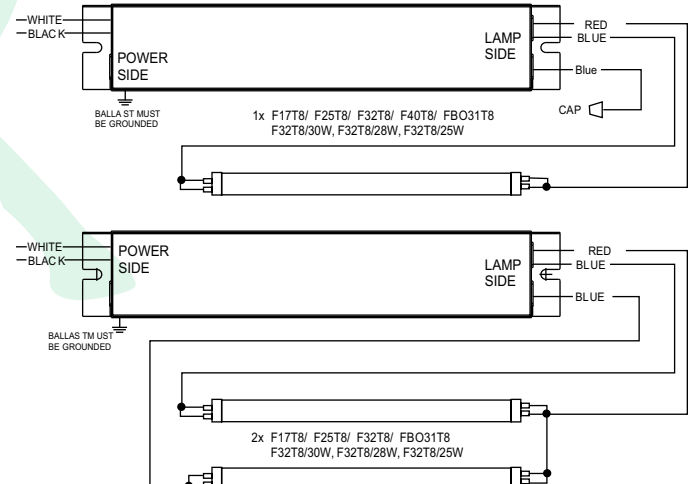
INPUT VOLT	277V $\pm$ 10%, 50/60Hz						
LAMP WATTS/TYPE	F17T8	F25T8	F32T8	FBO31T8	F32T8/25	F32T8/28	F32T8/30
LAMPS OPERATED	2 (TWO)						
INPUT WATTS	39	54	73	71	62	63	69
LINE CURRENT	0.15	0.20	0.27	0.25	0.23	0.24	0.25
POWER FACTOR	≥ 0.96	≥ 0.97	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.97	≥ 0.98
BALLAST FACTOR	1.23	1.20	1.18	1.18	1.18	1.18	1.18
BALLAST EFFICACY FACTOR	3.15	2.22	1.61	1.66	1.90	1.87	1.71
THD	$\leq 15\%$	$\leq 15\%$	$\leq 10\%$	$\leq 10\%$	$\leq 15\%$	$\leq 15\%$	$\leq 15\%$
CURRENT CREST FACTOR	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7	≤ 1.7
EMI/RFI COMPLIANCE	FCC PART 18-A (NON-CONSUMER)						
SOUND RATING	"A"						
BALLAST TYPE	INSTANT START						
VOLTAGE TRANSIENTS	ANSI C82 11-1993						
INPUT/PROTECTION	FUSE						
OUTPUT/PROTECTION	-						
MIN. STATING TEMP.	-18°C (0°F)						
MAX. CASE TEMP.	70°C (158°F)						
TYPE "HL" APPROVAL	APPROVED FOR HAZARDOUS LOCATION						
ENERGY STAR 4.0	-						
APPROVALS/CLASS	UL/cUL LISTED, CLASS P, 1 OUTDOOR						

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	24 $\pm$ 1"	24 $\pm$ 1"	46 $\pm$ 1"	32 $\pm$ 1"	-	-



NOTE: This Ballast Must Be Grounded.