

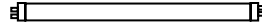


SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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:

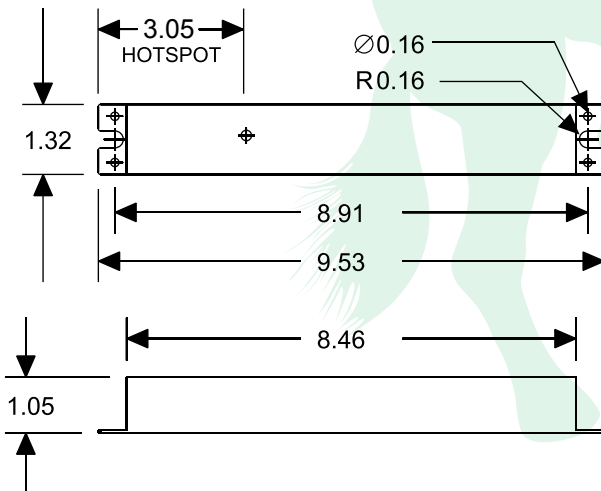


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

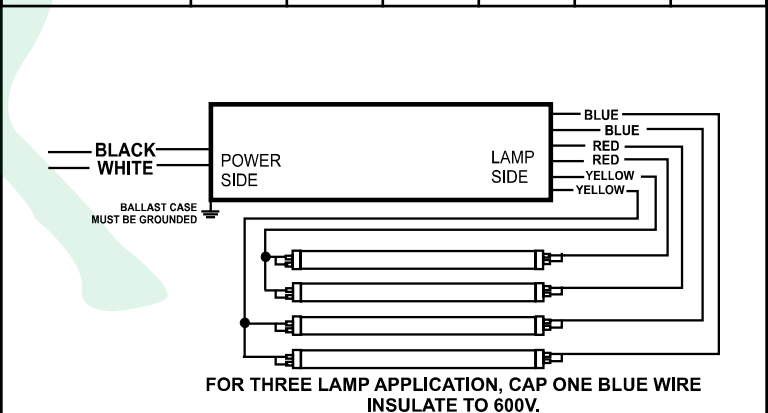
INPUT VOLT	120V ± 10%, 50/60Hz							
LAMP WATTS/TYPE	F32T8/25	F32T8/28	F32T8/30	FB28T8	FB31T8	FB32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)							
INPUT WATTS	74	77	84	77	87	92	92	114
LINE CURRENT	0.62	0.65	0.71	0.65	0.73	0.77	0.77	0.95
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
BALLAST EFFICACY FACTOR	1.29	1.24	1.14	1.24	1.10	1.04	1.04	0.84
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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							
REMOTE MOUNTING	18 FT MAX.							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.



SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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:

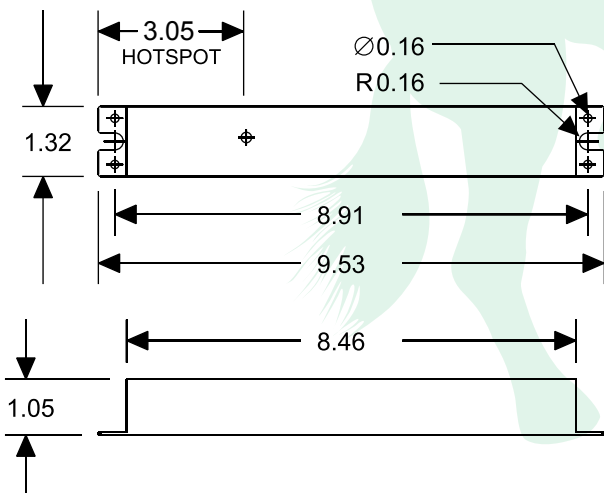


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

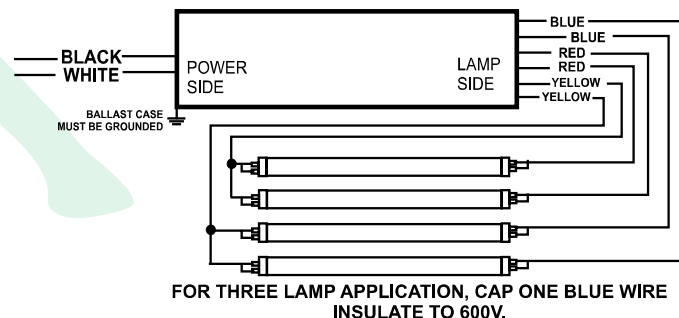
INPUT VOLT	120V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/30	F32T8/28	F32T8/25	FBO28T8	FBO31T8	F32T8	FBO32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	59	87	88	94	101	94	107	112	112
LINE CURRENT	0.49	0.72	0.74	0.79	0.85	0.79	0.9	0.93	0.93
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.93	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88
BALLAST EFFICACY FACTOR	1.57	1.02	1.00	0.93	0.87	0.93	0.82	0.79	0.79
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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								
REMOTE MOUNTING	18 FT MAX.								

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.

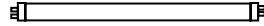


SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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:

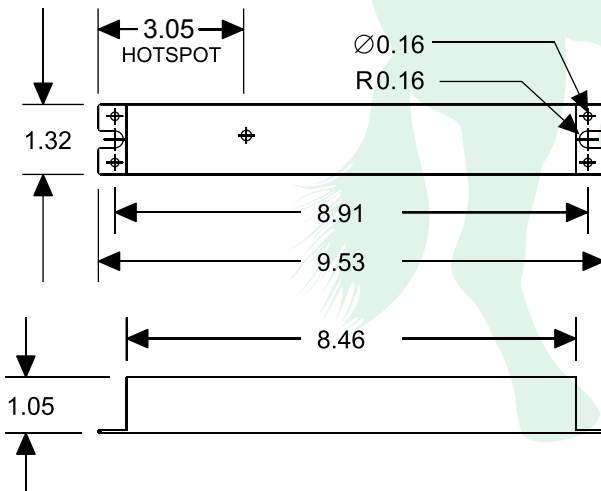


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

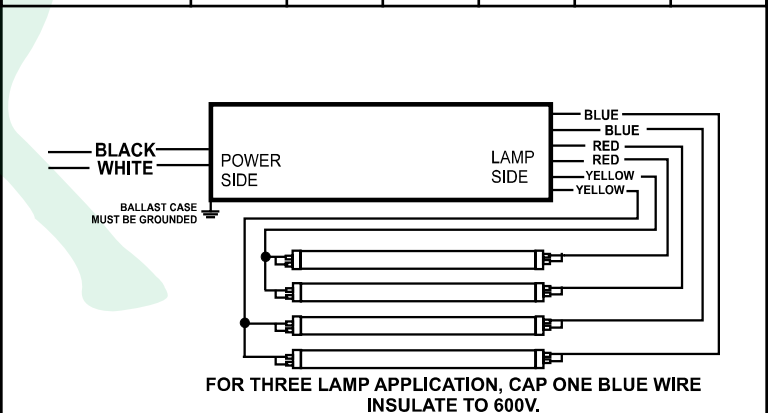
INPUT VOLT	230V ± 10%, 50/60Hz							
LAMP WATTS/TYPE	F32T8/25	F32T8/28	F32T8/30	FB28T8	FB31T8	FB32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)							
INPUT WATTS	73	77	84	77	87	89	89	109
LINE CURRENT	0.32	0.34	0.37	0.34	0.39	0.39	0.39	0.48
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
BALLAST EFFICACY FACTOR	1.31	1.25	1.15	1.25	1.10	1.07	1.07	0.88
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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							
REMOTE MOUNTING	18 FT MAX.							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.

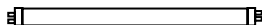


SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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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:

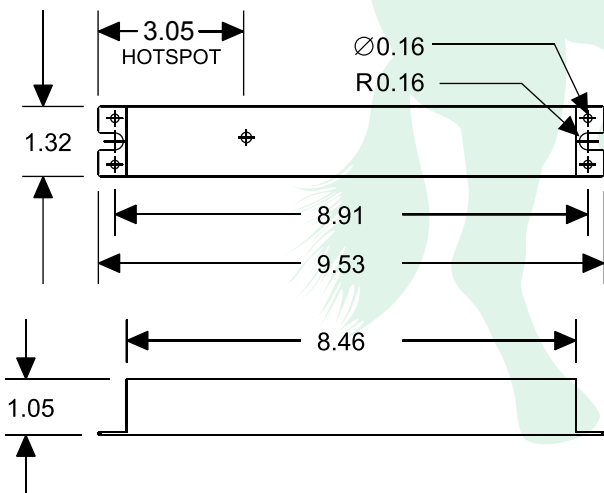


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

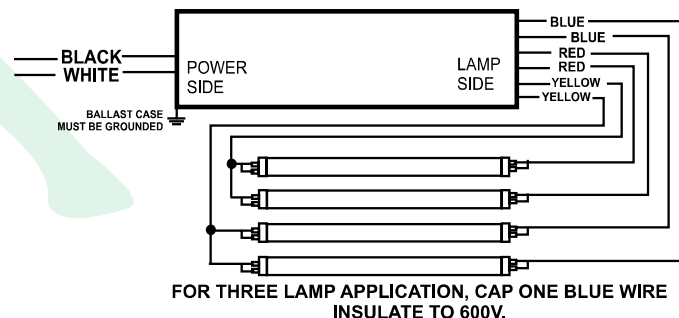
INPUT VOLT	230V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/30	F32T8/28	F32T8/25	FBO28T8	FBO31T8	F32T8	FBO32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	58	85	88	94	100	92	106	108	108
LINE CURRENT	0.26	0.38	0.39	0.42	0.44	0.41	0.47	0.48	0.48
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.93	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88
BALLAST EFFICACY FACTOR	1.59	1.05	1.00	0.93	0.88	0.95	0.83	0.80	0.80
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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								
REMOTE MOUNTING	18 FT MAX.								

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.

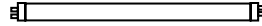


SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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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:

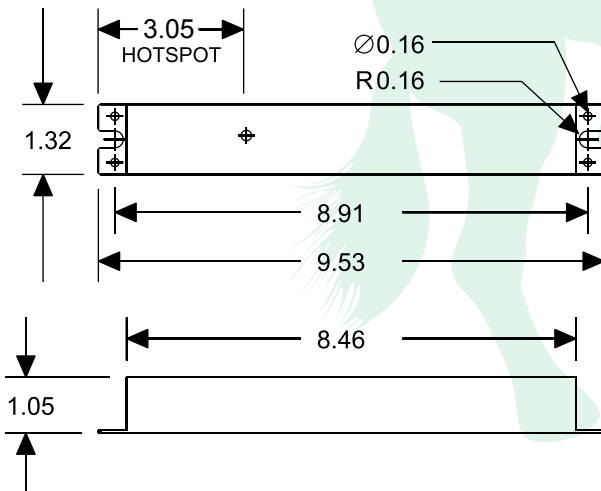


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

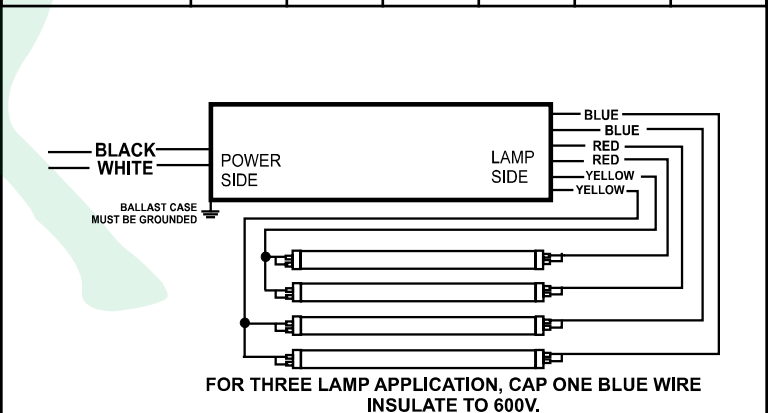
INPUT VOLT	277V ± 10%, 50/60Hz							
LAMP WATTS/TYPE	F32T8/25	F32T8/28	F32T8/30	FB28T8	FB31T8	FB32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)							
INPUT WATTS	73	77	84	77	87	89	89	109
LINE CURRENT	0.27	0.29	0.31	0.29	0.32	0.34	0.34	0.41
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
BALLAST EFFICACY FACTOR	1.31	1.25	1.15	1.25	1.10	1.07	1.07	0.88
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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							
REMOTE MOUNTING	18 FT MAX.							

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.

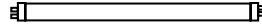


SPECIFICATION SHEET: WHSG4-UNV-T8-IS

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:

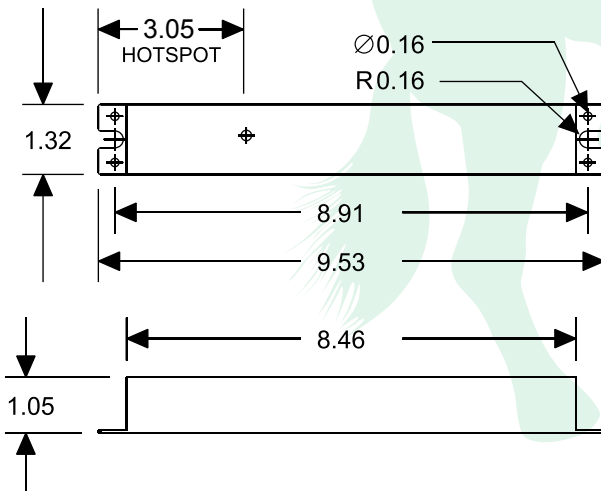


F17T8, F25T8, F32T8/25, F32T8/28, F32T8/30, FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

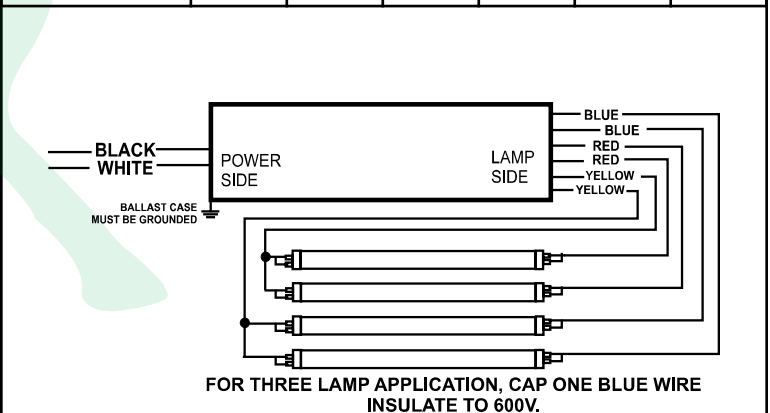
INPUT VOLT	277V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/30	F32T8/28	F32T8/25	FBO28T8	FBO31T8	F32T8	FBO32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	58	85	88	94	100	92	106	108	108
LINE CURRENT	0.22	0.32	0.33	0.35	0.37	0.34	0.39	0.40	0.40
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.93	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88
BALLAST EFFICACY FACTOR	1.59	1.05	1.00	0.93	0.88	0.95	0.83	0.80	0.80
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 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								
REMOTE MOUNTING	18 FT MAX.								

MECHANICAL DATA



WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH-INCHES	25±1"	25±1"	46±1"	31±1"	-	-



NOTE: This Ballast Must Be Grounded.