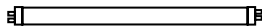


SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

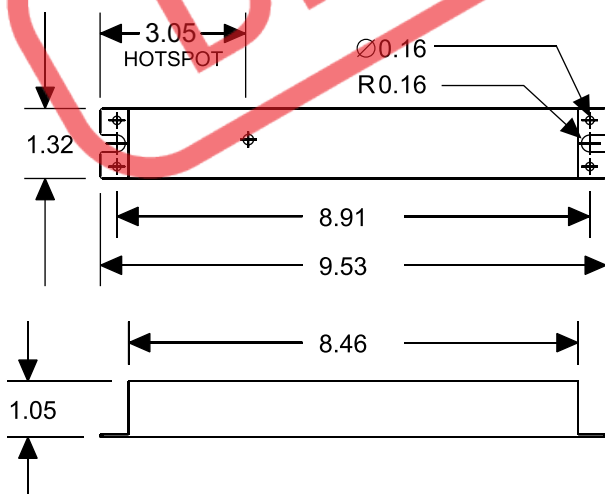


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

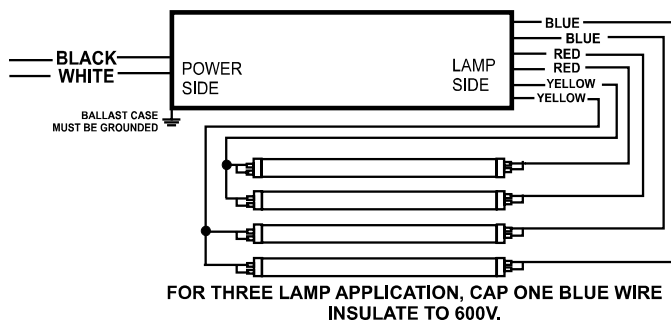
INPUT VOLT	120V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)								
INPUT WATTS	62	68	70	75	70	76	81	81	98
LINE CURRENT	0.53	0.57	0.59	0.63	0.59	0.64	0.68	0.68	0.82
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.84	0.84	0.82	0.82	0.82	0.82	0.82	0.82	0.82
BALLAST EFFICACY FACTOR	1.35	1.23	1.17	1.09	1.17	1.07	1.01	1.01	0.83
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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"	-	-



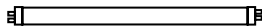
NOTE: This Ballast Must Be Grounded.

SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

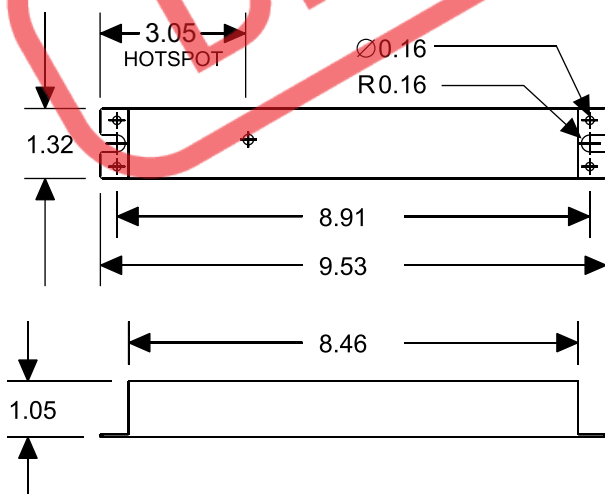


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

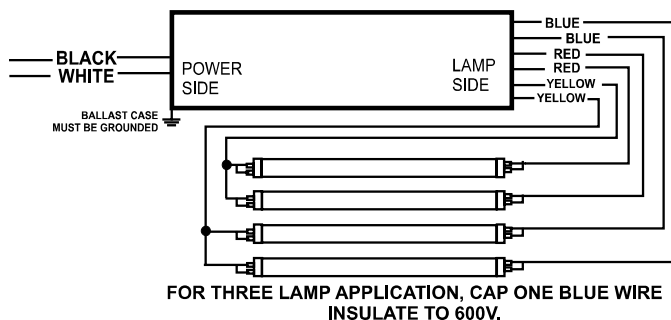
INPUT VOLT	120V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	54	76	82	84	90	84	94	98	98
LINE CURRENT	0.46	0.64	0.69	0.71	0.76	0.71	0.79	0.82	0.82
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.79	0.78	0.78	0.77	0.77	0.77	0.77	0.77	0.77
BALLAST EFFICACY FACTOR	1.46	1.02	0.95	0.91	0.85	0.91	0.81	0.79	0.79
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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"	-	-



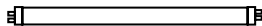
NOTE: This Ballast Must Be Grounded.

SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

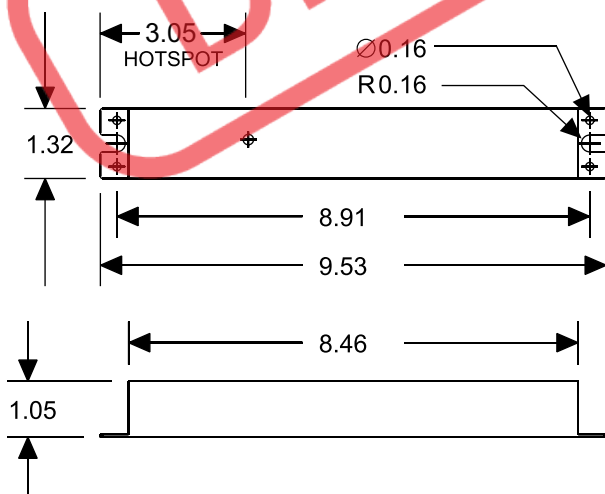


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

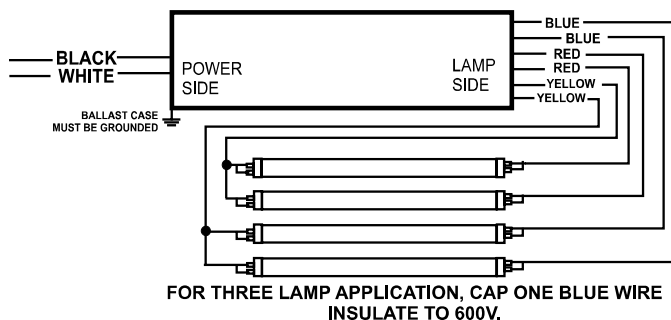
INPUT VOLT	230V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)								
INPUT WATTS	61	66	70	74	70	77	80	80	96
LINE CURRENT	0.28	0.30	0.31	0.33	0.31	0.35	0.35	0.35	0.43
POWER FACTOR	≥ 0.95	≥ 0.95	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.84	0.84	0.82	0.82	0.82	0.82	0.82	0.82	0.82
BALLAST EFFICACY FACTOR	1.36	1.27	1.17	1.10	1.17	1.06	1.02	1.02	0.85
THD	≤ 15%	≤ 15%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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"	-	-



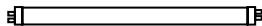
NOTE: This Ballast Must Be Grounded.

SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

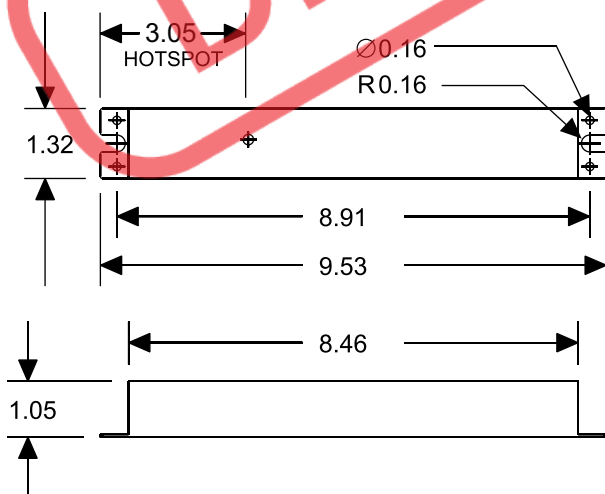


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

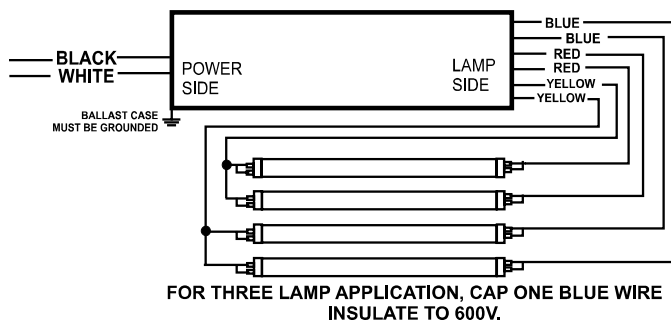
INPUT VOLT	230V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	52	74	81	84	89	84	92	96	96
LINE CURRENT	0.23	0.33	0.36	0.38	0.39	0.37	0.41	0.43	0.43
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.79	0.78	0.78	0.77	0.77	0.77	0.77	0.77	0.77
BALLAST EFFICACY FACTOR	1.47	1.04	0.96	0.91	0.86	0.91	0.83	0.80	0.80
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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"	-	-



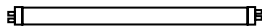
NOTE: This Ballast Must Be Grounded.

SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

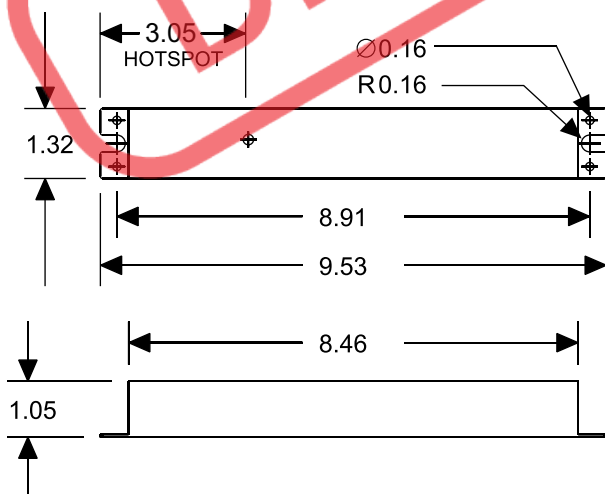


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

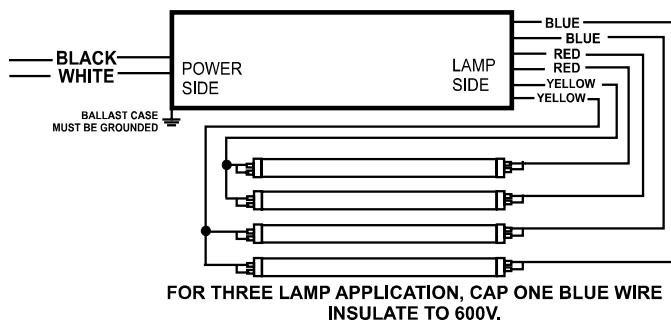
INPUT VOLT	277V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8	F40T8
LAMPS OPERATED	3 (THREE)								
INPUT WATTS	61	66	70	74	70	77	80	80	96
LINE CURRENT	0.22	0.25	0.26	0.275	0.26	0.285	0.29	0.29	0.35
POWER FACTOR	≥ 0.95	≥ 0.95	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.97	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.84	0.84	0.82	0.82	0.82	0.82	0.82	0.82	0.82
BALLAST EFFICACY FACTOR	1.36	1.27	1.17	1.10	1.17	1.06	1.02	1.02	0.85
THD	≤ 15%	≤ 15%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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"	-	-



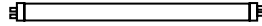
NOTE: This Ballast Must Be Grounded.

SPECIFICATION SHEET: WHSG4-UNV-T8-LB

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

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

This Ballast Will Operate Following Lamps:

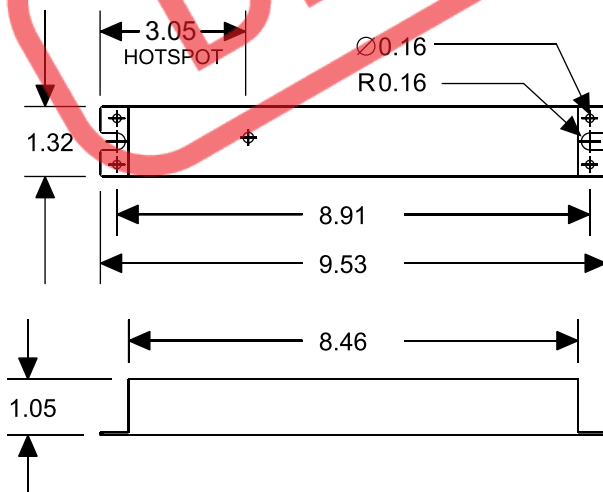


F17T8, F25T8, F32T8/25, F32T8/28,
F32T8/30, FBO28T8, FBO31T8,
FBO32T8, F32T8 F32T8, F40T8

ELECTRICAL DATA

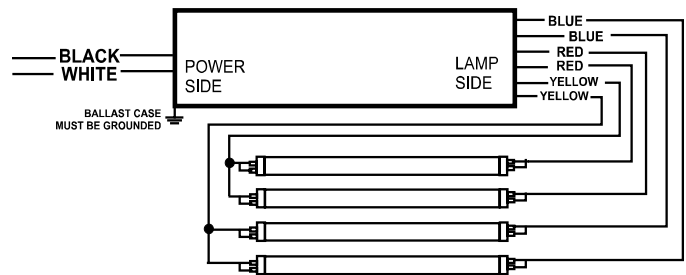
INPUT VOLT	277V ± 10%, 50/60Hz								
LAMP WATTS/TYPE	F17T8	F25T8	F32T8/25	F32T8/28	F32T8/30	FBO28T8	FBO31T8	FBO32T8	F32T8
LAMPS OPERATED	4 (FOUR)								
INPUT WATTS	52	74	81	84	89	84	92	96	96
LINE CURRENT	0.19	0.27	0.3	0.31	0.33	0.31	0.34	0.35	0.35
POWER FACTOR	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98	≥ 0.98
BALLAST FACTOR	0.79	0.78	0.78	0.77	0.77	0.77	0.77	0.77	0.77
BALLAST EFFICACY FACTOR	1.47	1.04	0.96	0.91	0.86	0.91	0.83	0.80	0.80
THD	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%	≤ 10%
CURRENT CREST FACTOR	≤ 1.7	≤ 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 C82.11-2005								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. STATING TEMP.	-18°C (0°F)								
MAX. CASE TEMP.	90°C (194°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.