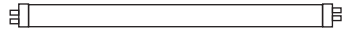


SPECIFICATION SHEET : WHSG4-UNV-T8-HB

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.

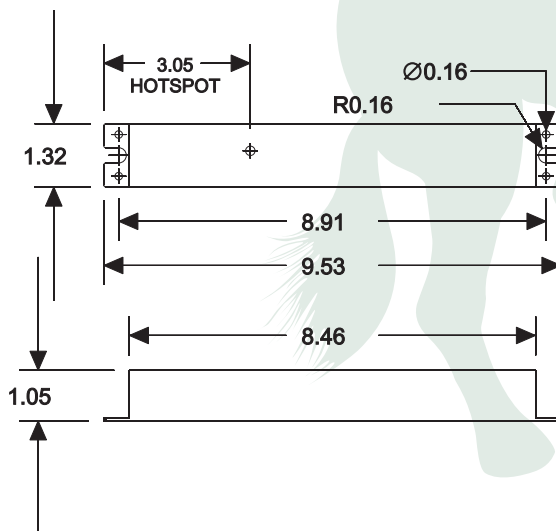


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (120V APPLICATION)

INPUT VOLT: 120V $\pm$ 10%, 50/60Hz									
LAMP WATTS/TYPE	F17T8	F25T8	F30T8	F32T8	F32T8(25W)	F32T8(28W)	F32T8(30W)	FB31T8	FB32T8
LAMPS OPERATED	4								
INPUT WATTS	78	110	114	146	112	119	133	139	146
LINE CURRENT:	0.65	0.99	0.95	1.22	0.94	1.00	1.12	1.16	1.22
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.14	1.14	0.96	1.16	1.15	1.08	1.11	1.11	1.16
EFFICACY FACTOR	1.45	1.03	0.84	0.79	1.03	0.91	0.84	0.80	0.79
THD	3%	2%	3%	3%	2%	3%	4%	3%	3%
CURRENT CREST FACTOR	< 1.7								
EMI/RFI COMPLIANCE	FCC PART 18-A								
SOUND RATING	" A "								
BALLAST TYPE	INSTANT START								
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)								
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.								

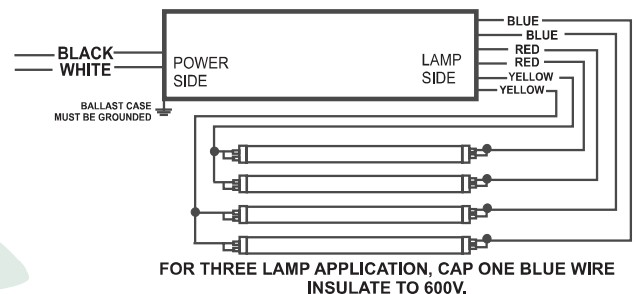
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

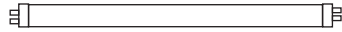
Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-1 rev

SPECIFICATION SHEET : WHSG4-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.

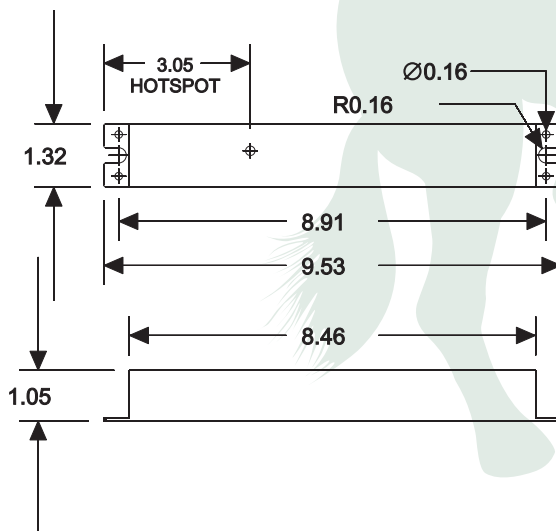


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (120V APPLICATION)

INPUT VOLT: 120V $\pm$ 10%, 50/60Hz								
LAMP WATTS/TYPE	F 30T8	F 32T8	F 32T8(25W)	F 32T8(28W)	F 32T8(30W)	F 40T8	FB 31T8	FB 32T8
LAMPS OPERATED	3							
INPUT WATTS	94	121	93	99	110	146	115	121
LINE CURRENT:	0.79	1.01	0.78	0.82	0.92	1.22	0.96	1.01
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.03	1.26	1.25	1.17	1.21	1.22	1.20	1.26
EFFICACY FACTOR	1.09	1.04	1.33	1.19	1.10	0.83	1.05	1.04
THD	3%	2%	2%	3%	2%	2%	2%	2%
CURRENT CREST FACTOR	< 1.7							
EMI/RFI COMPLIANCE	FCC PART 18-A							
SOUND RATING	" A "							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)							
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.							

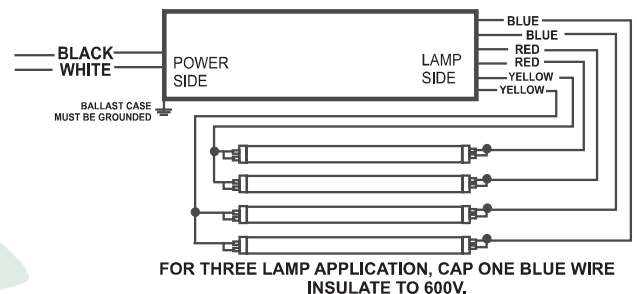
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

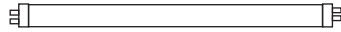
Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-2 rev

SPECIFICATION SHEET : WHSG4-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.

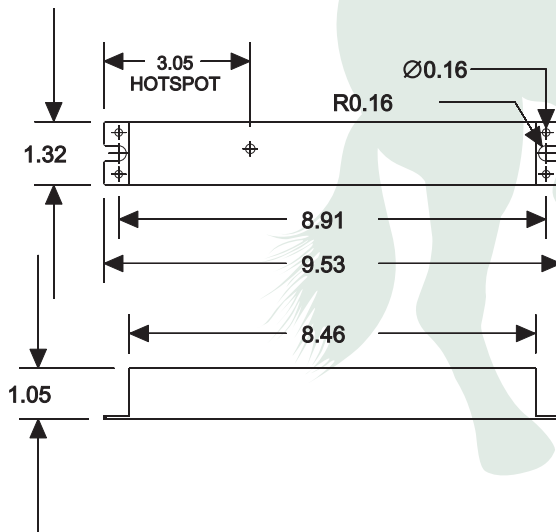


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (230V APPLICATION)

INPUT VOLT: 230V $\pm$ 10%, 50/60Hz									
LAMP WATTS/TYPE	F17T8	F25T8	F30T8	F32T8	F32T8(25W)	F32T8(28W)	F32T8(30W)	FB31T8	FB32T8
LAMPS OPERATED	4								
INPUT WATTS	76	108	112	142	110	116	130	134	142
LINE CURRENT:	0.35	0.48	0.50	0.62	0.49	0.52	0.57	0.59	0.62
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.13	1.15	0.96	1.16	1.15	1.07	1.11	1.11	1.16
EFFICACY FACTOR	1.48	1.06	0.87	0.82	1.05	0.92	0.86	0.82	0.82
THD	7%	6%	7%	6%	6%	6%	6%	6%	6%
CURRENT CREST FACTOR	< 1.7								
EMI/RFI COMPLIANCE	FCC PART 18-A								
SOUND RATING	" A "								
BALLAST TYPE	INSTANT START								
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)								
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.								

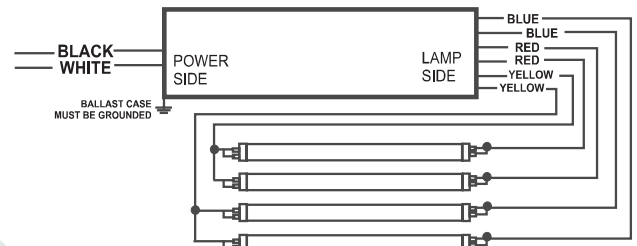
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



FOR THREE LAMP APPLICATION, CAP ONE BLUE WIRE INSULATE TO 600V.

NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

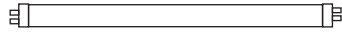
Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-3 rev

SPECIFICATION SHEET : WHSG4-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.

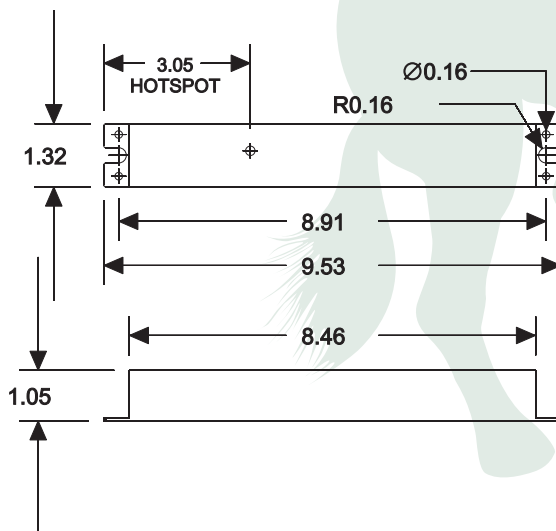


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (230V APPLICATION)

INPUT VOLT: 230V $\pm$ 10%, 50/60Hz								
LAMP WATTS/TYPE	F30T8	F32T8	F32T8(25W)	F32T8(28W)	F32T8(30W)	F40T8	FB31T8	FB32T8
LAMPS OPERATED	3							
INPUT WATTS	92	118	91	96	108	141	111	118
LINE CURRENT:	0.41	0.52	0.40	0.42	0.47	0.61	0.49	0.52
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.03	1.25	1.24	1.15	1.20	1.21	1.20	1.25
EFFICACY FACTOR	1.12	1.06	1.36	1.20	1.12	0.86	1.07	1.06
THD	7%	6%	6%	7%	6%	6%	6%	6%
CURRENT CREST FACTOR	< 1.7							
EMI/RFI COMPLIANCE	FCC PART 18-A							
SOUND RATING	" A "							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)							
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.							

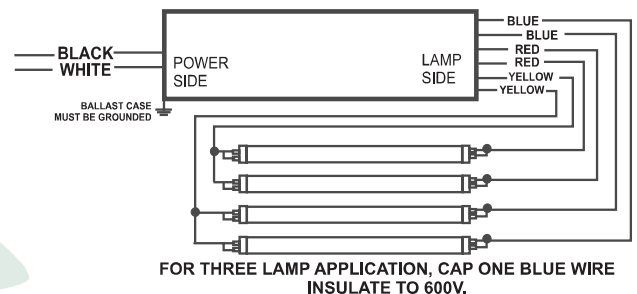
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

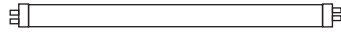
Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-4 rev

SPECIFICATION SHEET : WHSG4-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.

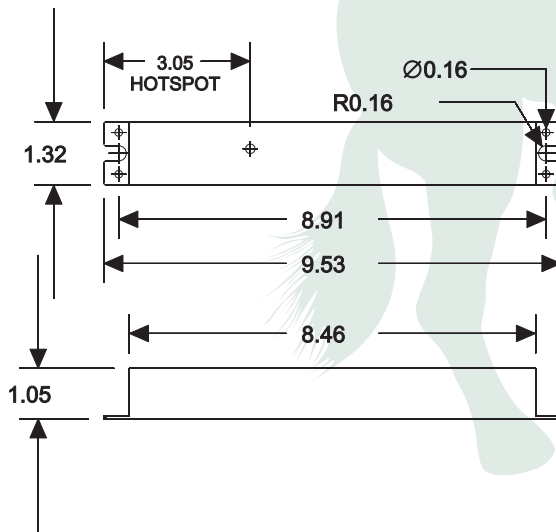


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (277V APPLICATION)

INPUT VOLT: 277V $\pm$ 10%, 50/60Hz									
LAMP WATTS/TYPE	F17T8	F25T8	F30T8	F32T8	F32T8(25W)	F32T8(28W)	F32T8(30W)	FB31T8	FB32T8
LAMPS OPERATED	4								
INPUT WATTS	76	108	111	141	109	116	129	134	141
LINE CURRENT:	0.30	0.40	0.42	0.52	0.41	0.43	0.48	0.50	0.52
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.13	1.15	0.96	1.15	1.14	1.07	1.11	1.11	1.15
EFFICACY FACTOR	1.49	1.06	0.87	0.82	1.05	0.92	0.86	0.83	0.82
THD	9%	8%	8%	8%	8%	8%		8%	8%
CURRENT CREST FACTOR	< 1.7								
EMI/RFI COMPLIANCE	FCC PART 18-A								
SOUND RATING	" A "								
BALLAST TYPE	INSTANT START								
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993								
INPUT/PROTECTION	FUSE								
OUTPUT/PROTECTION	-								
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)								
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.								

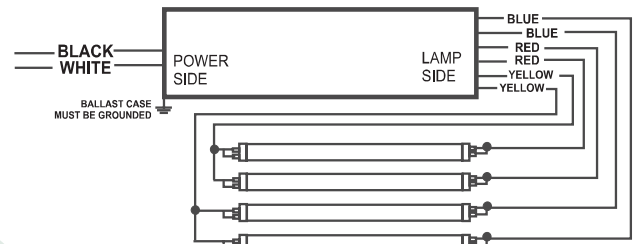
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



FOR THREE LAMP APPLICATION, CAP ONE BLUE WIRE INSULATE TO 600V.

NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

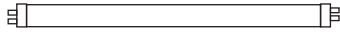
Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-5 rev

SPECIFICATION SHEET : WHSG4-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.

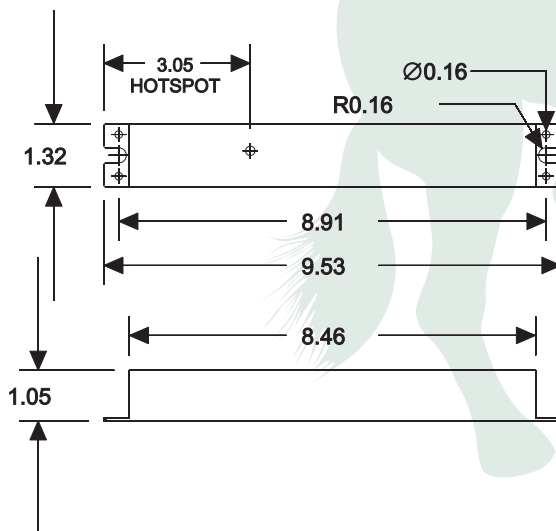


REFER TO LAMPS IN ELECTRICAL DATA

ELECTRICAL DATA (277V APPLICATION)

INPUT VOLT: 120V $\pm$ 10%, 50/60Hz								
LAMP WATTS/TYPE	F 30T8	F 32T8	F 32T8(25W)	F 32T8(28W)	F 32T8(30W)	F 40T8	FB 31T8	FB 32T8
LAMPS OPERATED	3							
INPUT WATTS	92	118	91	96	107	140	111	118
LINE CURRENT:	0.34	0.43	0.34	0.35	0.39	0.51	0.41	0.43
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
BALLAST FACTOR	1.04	1.25	1.25	1.15	1.21	1.21	1.19	1.25
EFFICACY FACTOR	1.12	1.06	1.36	1.20	1.12	0.86	1.07	1.06
THD	8%	8%	8%	8%	8%	8%	8%	8%
CURRENT CREST FACTOR	< 1.7							
EMI/RFI COMPLIANCE	FCC PART 18-A							
SOUND RATING	" A "							
BALLAST TYPE	INSTANT START							
VOLTAGE TRANSIENTS	ANSI C82.11 - 1993							
INPUT/PROTECTION	FUSE							
OUTPUT/PROTECTION	-							
MIN. OPERATING TEMP	- 18 $^{\circ}$ C (0 $^{\circ}$ F)							
MAX. CASE TEMP	70 $^{\circ}$ C (158 $^{\circ}$ 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.							

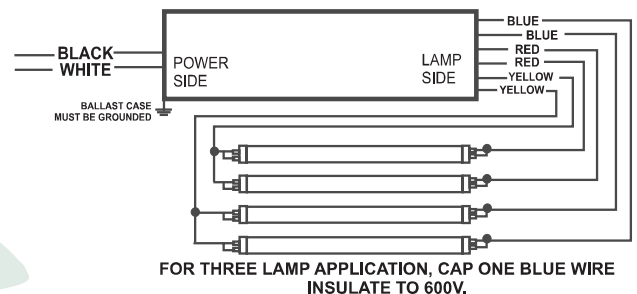
MECHANICAL DATA



Where : L = Length, W = Width, H = Height

WIRING DIAGRAMS

WIRE	BLACK	WHITE	RED	BLUE	YELLOW	BROWN
LENGTH - INCHES	25 $\pm$ 1"	25 $\pm$ 1"	46 $\pm$ 1"	31 $\pm$ 1"		



NOTE : This Ballast Case Must Be Grounded

Fulham Co., Inc extends limited warranty only to the original purchaser or to the first user for the period of 5 years from the date of manufacture as indicated by the date code stamped on each product and when properly installed and under normal conditions of use. For additional warranty guide line, please refer to our Complete Product Catalog OR call Customer Service at 1-800-2-Fulham.

DUE TO A PROGRAM OF CONTINUOUS IMPROVEMENT, FULHAM Co., INC RESERVES THE RIGHT TO MAKE ANY VARIATION IN DESIGN OR CONSTRUCTION TO THE EQUIPMENT DESCRIBED.

Address : 12705 South Van Ness Ave., Hawthorne, CA 90250 Tel.: 1-800-2-fulham, Fax.: 1-323-754-9060. Website: www.fulham.com 02-2006-198-6 rev