

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

**Description**: Sinehorse Series, High Frequency Electronic, Drop In Replacement for Magnetic, Parallel Wiring, Indoor and Outdoor Sign Applications

#### This Ballast Will Operate Following Lamps.

For 4, 5 or 6 x T12HO lamps (F36, F48, F60, F72, F84, F96, F120) TOTAL 12ft - 50ft

No single lamp may be longer than 10ft

No single lamp may be shorter than 3ft

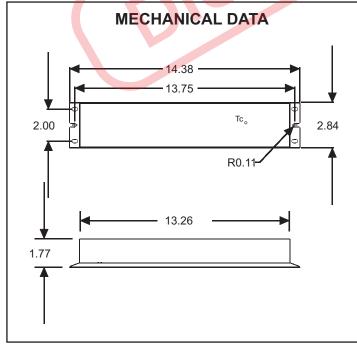
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

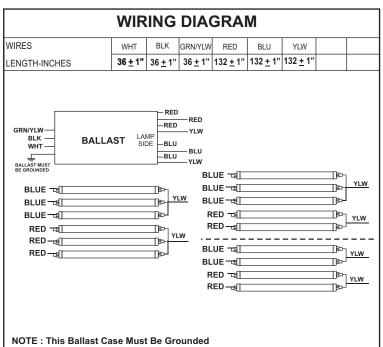
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

## **ELECTRICAL DATA (120V APPLICATION)**

INPUT VOLT: 120V ± 10%, 50/60Hz									
LAMP WATTS/TYPE	F36T8HO	F36T8HO	F36T8HO	F36T12HO	F36T12HO	F36T12HO	F48T8HO	F48T8HO	F48T8HO
LAMPS OPERATED	4	5	6	4	5	6	4	5	6
INPUT WATTS	133	152	170	123	139	155	174	202	229
LINE CURRENT:	1.10	1.27	1.41	1.02	1.15	1.29	1.45	1.69	1.91
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0. <mark>9</mark> 9	0.99
BALLAST FACTOR	1.11	1.01	0.94	0.43	0.40	0.37	1.10	1.00	0.93
EFFICACY FACTOR	0.83	0.66	0.55	0.35	0.29	0.24	0.63	0.50	0.41
THD	7.5%	6.4%	5.7%	9.1%	7.1%	6.4%	6.7%	5.0%	4.4%
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-C	Consumer)			
SOUND RATING					"A"				
BALLAST TYPE				INS	TANT STAF	RT			
VOLTAGE TRANSIENTS				ŀ	WSI 61.42				
INPUT/PROTECTION					FUSE				
MIN. OPERATING TEMP	-30°C (-22°F)								
MAX. CASE TEMP	70°C (158°C)								
APPROVALS/CLASS	1		UL/cUL	LISTED, CI	LASS "P",	Type 2 OUT	DOOR		





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

**Description**: Sinehorse Series, High Frequency Electronic, Drop In Replacement for Magnetic, Parallel Wiring, Indoor and Outdoor Sign Applications

## This Ballast Will Operate Following Lamps.

For 4, 5 or 6 x T12HO lamps (F36, F48, F60, F72, F84, F96, F120) TOTAL 12ft - 50ft

No single lamp may be longer than 10ft

No single lamp may be shorter than 3ft

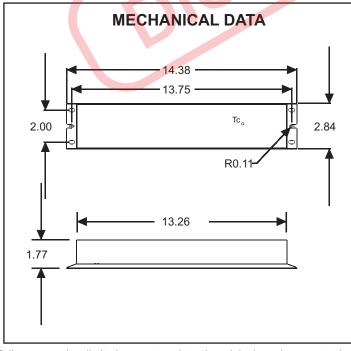
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

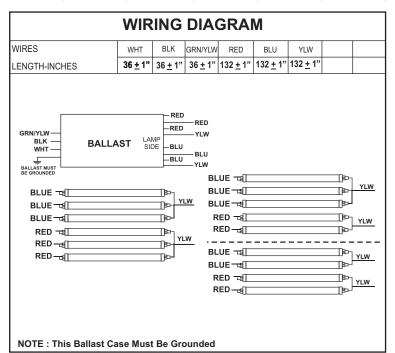
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (120V APPLICATION)**

INPUT VOLT: 120V ± 10%, 50/60Hz									
LAMP WATTS/TYPE	F48T12HO	F48T12HO	F48T12HO	F60T8HO	F60T8HO	F60T8HO	F60T12HO	F60T12HO	F60T12HO
LAMPS OPERATED	4	5	6	4	5	6	4	5	6
INPUT WATTS	154	177	198	218	253	285	189	216	243
LINE CURRENT:	1.28	1.47	1.65	1.82	2.12	2.39	1.58	1.81	1.99
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0. <mark>9</mark> 9	0.99
BALLAST FACTOR	0.43	0.40	0.37	1.09	0.99	0.93	0.43	0.39	0.37
EFFICACY FACTOR	0.28	0.22	0.19	0.50	0.39	0.33	0.23	0.18	0.15
THD	6.3%	5.6%	5.0%	5.0%	4.3%	3.8%	5.4%	4.8%	4.2%
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-C	Consumer)			
SOUND RATING					"A"				
BALLAST TYPE				INS	TANT STAF	RT			
VOLTAGE TRANSIENTS				F	NSI 61.42				
INPUT/PROTECTION					FUSE				
MIN. OPERATING TEMP				-3	0°C (-22°F	)		•	•
MAX. CASE TEMP	70°C (158°C)								
APPROVALS/CLASS	1		UL/cUL	LISTED, CI	_ASS " P ",	Type 2 OU	TDOOR		





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2012-356-2 rev A



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No single lamp may be longer than 10ft

No single lamp may be shorter than 3ft

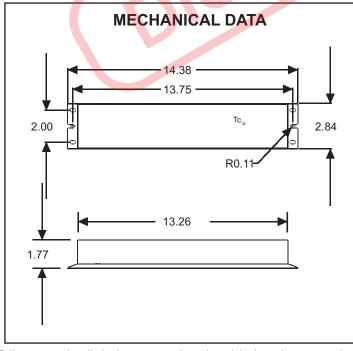
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

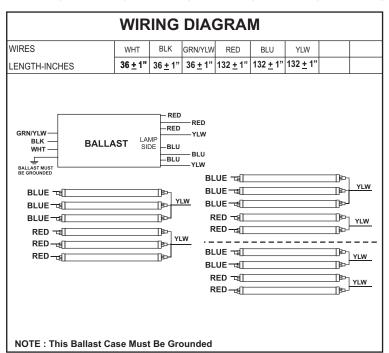
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (120V APPLICATION)**

INPUT VOLT: 120V ± 10%, 50/60Hz										
LAMP WATTS/TYPE	F72T8HO	F72T8HO	F72T8HO	F72T12HO	F72T12HO	F72T12HO	F84T12HO	F84T12HO	F84T12HO	
LAMPS OPERATED	4	5	6	4	5	6	4	5	6	
INPUT WATTS	249	292	331	220	256	289	253	292	329	
LINE CURRENT:	2.08	2.43	2.77	1.81	2.14	2.43	2.09	2.44	2.76	
POWER FACTOR	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0. <mark>9</mark> 9	0.99	
BALLAST FACTOR	1.08	0.98	0.91	0.43	0.39	0.36	0.42	0.38	0.36	
EFFICACY FACTOR	0.43	0.34	0.28	0.20	0.15	0.13	0.16	0.13	0.11	
THD	3.9%	3.4%	3.2%	4.8%	3.9%	3.6%	4.3%	3.6%	3.3%	
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-C	Consumer)				
SOUND RATING					"A"					
BALLAST TYPE				INS	TANT STAF	RT				
VOLTAGE TRANSIENTS				1	ANSI 61.42					
INPUT/PROTECTION					FUSE					
MIN. OPERATING TEMP		-30°C (-22°F)								
MAX. CASE TEMP	70°C (158°C)									
APPROVALS/CLASS	1		UL /cUL	LISTED, CI	LASS "P",	Type 2 OU1	TDOOR			





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No single lamp may be longer than 10ft

No single lamp may be shorter than 3ft

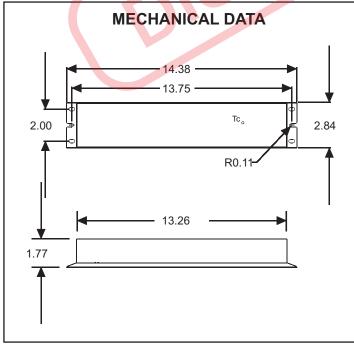
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

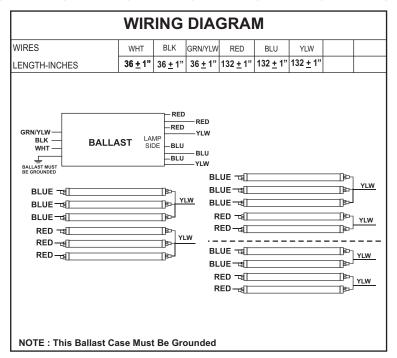
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (120V APPLICATION)**

					-		-	-
, 50/60Hz								
F96T12HO	F96T12HO	F96T12HO	F96T8HO	F96T8HO	F120T12HO			
4	5	6	4	5	4			
283	327	357	341	394	350			
2.36	2.75	2.97	2.84	3.24	2.93			
0.99	0.99	0.99	0.99	0.99	0.99			
0.42	0.38	0.35	1.04	0.95	0.41			
0.15	0.12	0.10	0.31	0.24	0.12			
4.1%	3.6%	3.3%	3.2%	2.7%	3.2%			
		F	CC PART	8-A (Non-0	Consumer)		•	•
				"A"				
			INS	TANT STA	RT			
			F	NSI 61.42				
				FUSE				
			-3	0°C (-22°F	)			
	70°C (158°C)							
1		UL /cUL	LISTED, CI	ASS "P",	Type 2 OU1	DOOR	•	
	F96T12HO 4 283 2.36 0.99 0.42 0.15	F96T12HO         F96T12HO           4         5           283         327           2.36         2.75           0.99         0.99           0.42         0.38           0.15         0.12	F96T12HO F96T12HO F96T12HO 4 5 6 283 327 357 2.36 2.75 2.97 0.99 0.99 0.99 0.42 0.38 0.35 0.15 0.12 0.10 4.1% 3.6% 3.3%	F96T12HO F96T12HO F96T12HO F96T8HO  4 5 6 4  283 327 357 341  2.36 2.75 2.97 2.84  0.99 0.99 0.99 0.99  0.42 0.38 0.35 1.04  0.15 0.12 0.10 0.31  4.1% 3.6% 3.3% 3.2%  FCC PART 1	F96T12HO F96T12HO F96T12HO F96T8HO F96T8HO  4 5 6 4 5 283 327 357 341 394 2.36 2.75 2.97 2.84 3.24 0.99 0.99 0.99 0.99 0.99 0.42 0.38 0.35 1.04 0.95 0.15 0.12 0.10 0.31 0.24 4.1% 3.6% 3.3% 3.2% 2.7% FCC PART 18-A (Non-C	F96T12HO F96T12HO F96T12HO F96T8HO F96T8HO F120T12HO  4 5 6 4 5 4  283 327 357 341 394 350  2.36 2.75 2.97 2.84 3.24 2.93  0.99 0.99 0.99 0.99 0.99 0.99  0.42 0.38 0.35 1.04 0.95 0.41  0.15 0.12 0.10 0.31 0.24 0.12  4.1% 3.6% 3.3% 3.2% 2.7% 3.2%  FCC PART 18-A (Non-Consumer)  "A"  INSTANT START  ANSI 61.42  FUSE  -30°C (-22°F)  70°C (158°C)	F96T12HO         F96T12HO         F96T8HO         F96T8HO         F120T12HO           4         5         6         4         5         4           283         327         357         341         394         350           2.36         2.75         2.97         2.84         3.24         2.93           0.99         0.99         0.99         0.99         0.99         0.99           0.42         0.38         0.35         1.04         0.95         0.41           0.15         0.12         0.10         0.31         0.24         0.12           4.1%         3.6%         3.3%         3.2%         2.7%         3.2%           FCC PART 18-A (Non-Consumer)           "A"           INSTANT START           ANSI 61.42           FUSE           -30°C (-22°F)	F96T12HO F96T12HO F96T12HO F96T8HO F96T8HO F120T12HO  4 5 6 4 5 4  283 327 357 341 394 350  2.36 2.75 2.97 2.84 3.24 2.93  0.99 0.99 0.99 0.99 0.99 0.99  0.42 0.38 0.35 1.04 0.95 0.41  0.15 0.12 0.10 0.31 0.24 0.12  4.1% 3.6% 3.3% 3.2% 2.7% 3.2%  FCC PART 18-A (Non-Consumer)  "A"  INSTANT START  ANSI 61.42  FUSE  -30°C (-22°F)  70°C (158°C)





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No single lamp may be longer than 10ft

No single lamp may be shorter than 3ft

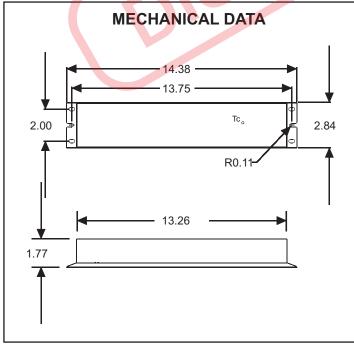
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

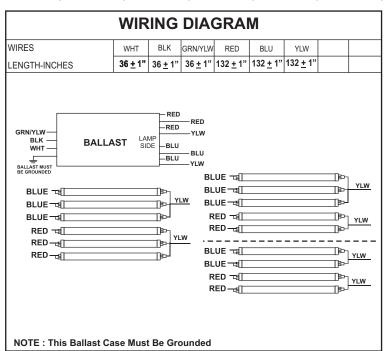
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (277V APPLICATION)**

INPUT VOLT: 277V ± 10%, 50/60Hz										
LAMP WATTS/TYPE	F36T8HO	F36T8HO	F36T8HO	F36T12HO	F36T12HO	F36T12HO	F48T8HO	F48T8HO	F48T8HO	
LAMPS OPERATED	4	5	6	4	5	6	4	5	6	
INPUT WATTS	133	151	169	123	138	154	173	200	227	
LINE CURRENT:	0.54	0.60	0.65	0.51	0.56	0.61	0.67	0.76	0.85	
POWER FACTOR	0.89	0.91	0.92	0.87	0.90	0.91	0.93	0.94	0.96	
BALLAST FACTOR	1.10	1.00	0.94	0.43	0.39	0.37	1.09	0.99	0.93	
EFFICACY FACTOR	0.83	0.66	0.56	0.35	0.28	0.24	0.63	0.50	0.41	
THD	20.1%	18.0%	16.6%	22.5%	18.6%	17.8%	17.8%	14.7%	13.1%	
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-0	Consumer)				
SOUND RATING					"A"					
BALLAST TYPE				INS	TANT STAF	RT				
VOLTAGE TRANSIENTS				1	NSI 61.42					
INPUT/PROTECTION					FUSE					
MIN. OPERATING TEMP	-30°C (-22°F)									
MAX. CASE TEMP	70°C (158°C)									
APPROVALS/CLASS	1		UL/cUL	LISTED, CI	_ASS " P ",	Type 2 OU1	TDOOR			





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2012-356-5 rev A



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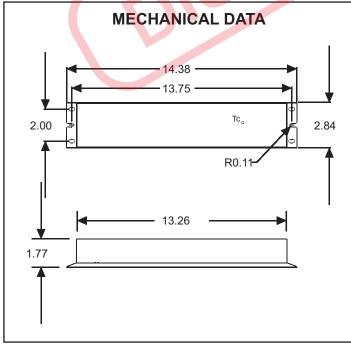
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

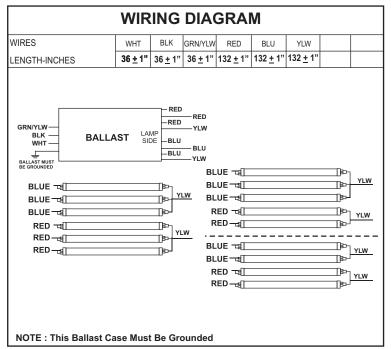
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (277V APPLICATION)**

INPUT VOLT: 277V ± 10%, 50/60Hz										
LAMP WATTS/TYPE	F48T12HO	F48T12HO	F48T12HO	F60T8HO	F60T8HO	F60T8HO	F60T12HO	F60T12HO	F60T12HO	
LAMPS OPERATED	4	5	6	4	5	6	4	5	6	
INPUT WATTS	154	175	195	216	250	280	188	214	239	
LINE CURRENT:	0.61	0.67	0.74	0.82	0.93	1.04	0.72	0.81	0.89	
POWER FACTOR	0.91	0.93	0.94	0.95	0.96	0.97	0.94	0. <mark>9</mark> 5	0.96	
BALLAST FACTOR	0.43	0.39	0.37	1.08	0.98	0.92	0.43	0.39	0.36	
EFFICACY FACTOR	0.28	0.22	0.19	0.50	0.39	0.33	0.23	0.18	0.15	
THD	18.2%	16.1%	14.5%	14.5%	12.8%	11.3%	15.6%	14.3%	13.0%	
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-0	Consumer)				
SOUND RATING					"A"					
BALLAST TYPE				INS	TANT STAF	RT				
VOLTAGE TRANSIENTS				ŀ	WSI 61.42					
INPUT/PROTECTION					FUSE					
MIN. OPERATING TEMP		-30°C (-22°F)								
MAX. CASE TEMP		70°C (158°C)								
APPROVALS/CLASS	10		UL/cUL	LISTED, CI	LASS "P",	Type 2 OU	rdoor		·	





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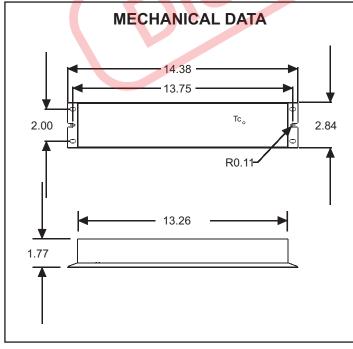
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

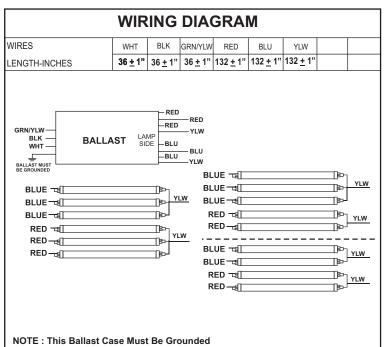
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (277V APPLICATION)**

INPUT VOLT: 277V ± 10%, 50/60Hz									
LAMP WATTS/TYPE	F72T8HO	F72T8HO	F72T8HO	F72T12HO	F72T12HO	F72T12HO	F84T12HO	F84T12HO	F84T12HO
LAMPS OPERATED	4	5	6	4	5	6	4	5	6
INPUT WATTS	248	287	324	217	252	284	249	288	322
LINE CURRENT:	0.93	1.06	1.19	0.82	0.94	1.05	0.93	1.06	1.19
POWER FACTOR	0.96	0.97	0.98	0.95	0.96	0.97	0.96	0. <mark>9</mark> 7	0.98
BALLAST FACTOR	1.07	0.98	0.91	0.43	0.39	0.36	0.42	0.38	0.36
EFFICACY FACTOR	0.43	0.34	0.28	0.20	0.15	0.13	0.17	0.13	0.11
THD	12.0%	10.2%	9.5%	14.9%	12.0%	10.9%	13.1%	11.0%	9.8%
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-C	Consumer)			
SOUND RATING					"A"				
BALLAST TYPE				INS	TANT STAF	RT			
VOLTAGE TRANSIENTS				F	WSI 61.42				
INPUT/PROTECTION					FUSE				
MIN. OPERATING TEMP	-30°C (-22°F)								
MAX. CASE TEMP	70°C (158°C)								
APPROVALS/CLASS			UL/cUL	LISTED, CI	_ASS"P",	Type 2 OU7	TDOOR		





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2012-356-7 rev A



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No single lamp may be shorter than 3ft

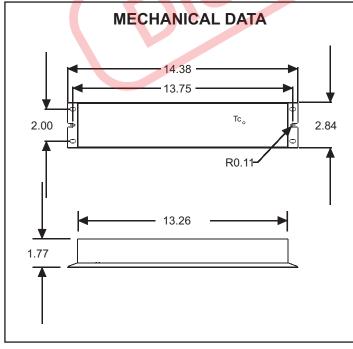
For 4, 5 or 6 x T8HO lamps (F36, F48, F60, F72, F84, F96) TOTAL 12ft - 42ft

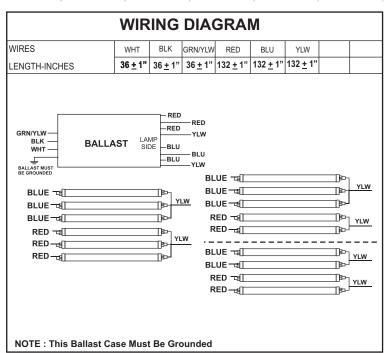
No single lamp may be longer than 8ft

No single lamp may be shorter than 3ft

#### **ELECTRICAL DATA (277V APPLICATION)**

INPUT VOLT: 277V ± 10%	, 50/60Hz									
LAMP WATTS/TYPE	F96T12HO	F96T12HO	F96T12HO	F96T8HO	F96T8HO	F120T12HO				
LAMPS OPERATED	4	5	6	4	5	4				
INPUT WATTS	279	321	349	334	385	342				
LINE CURRENT:	1.04	1.18	1.27	1.23	1.40	1.26				
POWER FACTOR	0.97	0.98	0.98	0.98	0.98	0.98				
BALLAST FACTOR	0.42	0.38	0.35	1.04	0.94	0.41				
EFFICACY FACTOR	0.15	0.12	0.10	0.31	0.25	0.12				
THD	11.8%	10.3%	9.3%	9.7%	8.5%	9.5%				
EMI/RFI COMPLIANCE			F	CC PART	18-A (Non-0	Consumer)				
SOUND RATING					"A"					
BALLAST TYPE				INS	TANT STA	RT				
VOLTAGE TRANSIENTS				F	NSI 61.42					
INPUT/PROTECTION					FUSE					
MIN. OPERATING TEMP				-3	0°C (-22°F	")	•			
MAX. CASE TEMP		70°C (158°C)								
APPROVALS/CLASS	1		UL/cUL	LISTED, CI	ASS "P",	Type 2 OUT	DOOR			





Fulham extends a limited warranty only to the original purchaser or to the first user for a period of 5 years from the date of manufacture when properly installed and operated under normal conditions of use. For complete terms and conditions, please reference the Fulham product catalog (www.fulham.com) Due to a program of continuous improvement, Fulham reserves the right to make modifications or variations in design or construction to the equipment described. 2012-356-8 rev A