## SPECIFICATION Sheet: WHSG4-UNV-T8-IS

SPECIFIER GRADE
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 | $120 \mathrm{~V} \pm 10 \%, 50 / 60 \mathrm{~Hz}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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 | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | <10\% | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |
| 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. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |





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This Ballast Will Operate Following Lamps:

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

ELECTRICAL DATA

| INPUT VOLT | $120 \mathrm{~V} \pm 10 \%, 50 / 60 \mathrm{~Hz}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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 | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |  |
| 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. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |  |





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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 $\pm 10 \%$, $50 / 60 \mathrm{~Hz}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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 | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |
| 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. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |



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 1-323-599-5000. 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 Data is based upon tests performed by Fulham in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions Address: 12705 S. Van Ness Ave Hawthorne CA 90250 Website: www fulham.com To order this product: Fax: 1-323-754-9060 Email: order@fuham.com

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This Ballast Will Operate Following Lamps:

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FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

ELECTRICAL DATA

| INPUT VOLT | 230V $\pm 10 \%, 50 / 60 \mathrm{~Hz}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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 | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |  |
| 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. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |  |



| WIRING DIAGRAMS |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| WIRE <br> LENGTH-INCHES | BLACK | WHITE | RED | BLUE | YELLOW | BROWN |
|  | $25 \pm 1 "$ | $25 \pm 1 "$ | $46 \pm 1 "$ | $31 \pm 1^{\prime \prime}$ | - | - |



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

NOTE: This Ballast Must Be Grounded.

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This Ballast Will Operate Following Lamps:

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ELECTRICAL DATA

| INPUT VOLT | 277V $\pm 10 \%$, 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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 | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | < 10\% | $\leq 10 \%$ | < 10\% | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |
| 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. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |





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FB28T8, FB31T8, FB32T8, F32T8, F40T8, F32T8

## ELECTRICAL DATA

| INPUT VOLT | 277V $\pm 10 \%$, $50 / 60 \mathrm{~Hz}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LAMP WATTS/TYPE | F17T8 | F25T8 | F32T8/30 | F32T8/28 | F32T8/25 | FBO28T8 | FBO3178 | 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 | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ | $\geq 0.98$ |
| 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\% | $\leq 10 \%$ | < 10\% | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ | $\leq 10 \%$ |
| CURRENT CREST FACTOR | $\leq 1.7$ |  |  |  |  |  |  |  |  |
| EMI/RFI COMPLIANCE | FCC PART 18-A (NON-CONSUMER) |  |  |  |  |  |  |  |  |
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| BALLAST TYPE | INSTANT START |  |  |  |  |  |  |  |  |
| VOLTAGE TRANSIENTS | ANSI C82.11-1993 |  |  |  |  |  |  |  |  |
| INPUT/PROTECTION | FUSE |  |  |  |  |  |  |  |  |
| OUTPUT/PROTECTION | - |  |  |  |  |  |  |  |  |
| MIN. STATING TEMP. | $-18^{\circ} \mathrm{C}\left(0^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| MAX. CASE TEMP. | $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |  |  |  |
| 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. |  |  |  |  |  |  |  |  |





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