



LTL NUMBER: 07336

DATE: 04-09-2003

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: TRSO3-X-4-X-OP/PB-X-120-T5HO

LUMINAIRE: EXTRUDED ALUMINUM HOUSING, FORMED SPECULAR ALUMINUM REFLECTORS  
 BESIDE LAMPS, 12 CELL, 1 1/2" DEEP FORMED SPECULAR ALUMINUM  
 LOUVER WITH TRANSLUCENT WHITE ACRYLIC OVERLAY, OPEN TOP.

LAMPS: THREE 54 WATT HIGH OUTPUT T5 LINEAR FLUORESCENT LAMPS RATED AT 4400  
 LUMENS EACH.

LAMP CATALOG NUMBER: SYLVANIA FP54/841/HO

BALLASTS: TWO UNIVERSAL LIGHTING TECHNOLOGIES B254PUNV-D

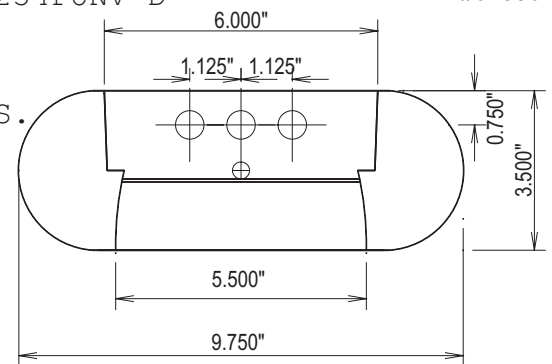
#07336

MOUNTING: PENDENT

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS =186.1 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.



CANDELA DISTRIBUTION

|     | 0.0  | 22.5 | 45.0 | 67.5 | 90.0 |
|-----|------|------|------|------|------|
| 0   | 1270 | 1270 | 1270 | 1270 | 1270 |
| 5   | 1257 | 1264 | 1266 | 1262 | 1265 |
| 15  | 1191 | 1201 | 1215 | 1222 | 1232 |
| 25  | 1081 | 1095 | 1115 | 1142 | 1162 |
| 35  | 938  | 955  | 987  | 1014 | 1043 |
| 45  | 761  | 782  | 811  | 835  | 867  |
| 55  | 556  | 572  | 580  | 595  | 630  |
| 65  | 223  | 258  | 262  | 238  | 234  |
| 75  | 23   | 25   | 25   | 25   | 26   |
| 85  | 8    | 9    | 8    | 8    | 8    |
| 90  | 0    | 0    | 0    | 0    | 0    |
| 95  | 72   | 234  | 121  | 40   | 22   |
| 105 | 400  | 879  | 1066 | 1157 | 1159 |
| 115 | 791  | 1133 | 1629 | 1873 | 1911 |
| 125 | 1165 | 1372 | 1782 | 2077 | 2203 |
| 135 | 1494 | 1644 | 1895 | 2122 | 2214 |
| 145 | 1765 | 1874 | 2010 | 2145 | 2207 |
| 155 | 1977 | 2039 | 2135 | 2186 | 2213 |
| 165 | 2122 | 2148 | 2197 | 2225 | 2241 |
| 175 | 2199 | 2197 | 2211 | 2206 | 2213 |
| 180 | 2200 | 2200 | 2200 | 2200 | 2200 |

FLUX

|      |
|------|
| 120  |
| 343  |
| 516  |
| 617  |
| 624  |
| 520  |
| 244  |
| 30   |
| 5    |
| 189  |
| 1016 |
| 1466 |
| 1549 |
| 1454 |
| 1258 |
| 977  |
| 619  |
| 210  |

ZONAL LUMEN SUMMARY

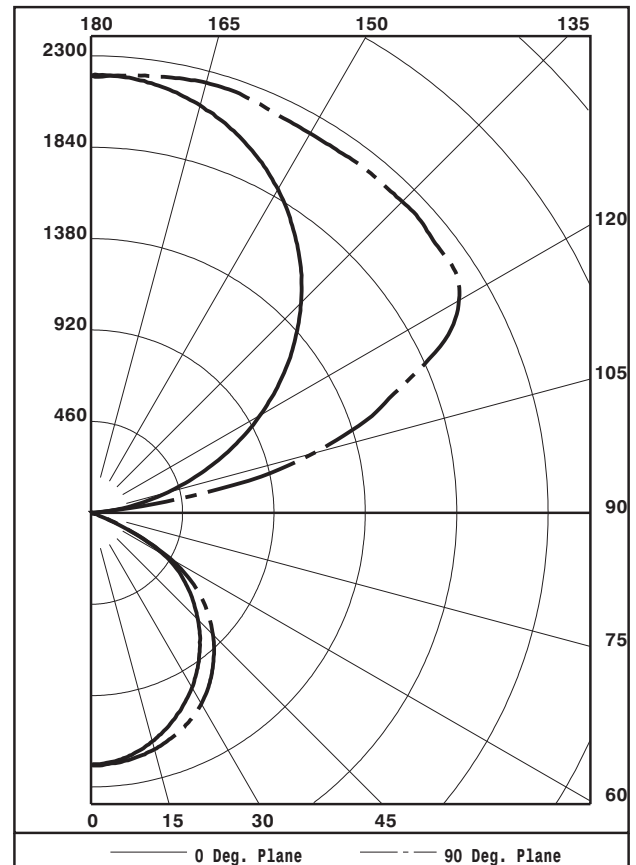
| ZONE   | LUMENS | %LAMP | %FIXT |
|--------|--------|-------|-------|
| 0- 30  | 979    | 7.4   | 8.3   |
| 0- 40  | 1596   | 12.1  | 13.6  |
| 0- 60  | 2740   | 20.8  | 23.3  |
| 0- 90  | 3019   | 22.9  | 25.7  |
| 90-120 | 2671   | 20.2  | 22.7  |
| 90-130 | 4220   | 32.0  | 35.9  |
| 90-150 | 6931   | 52.5  | 59.0  |
| 90-180 | 8738   | 66.2  | 74.3  |
| 0-180  | 11757  | 89.1  | 100.0 |

TOTAL LUMINAIRE EFFICIENCY: 89.1%

CIE TYPE: SEMI-INDIRECT

PLANE: 0-DEG 90-DEG

SPACING CRITERIA: 1.2 1.3



TESTED BY HERSCHEL SCHRECK  
 CHECKED BY MIKE GRATHER



LUMINAIRE TESTING LABORATORY, INC.



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD
EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

Table with 19 columns (RC, RW, 80, 70, 50, 30, 10, 0) and 11 rows (0-10) showing utilization coefficients.

PLANE: 0-DEG 90-DEG
LUMINOUS LENGTH: 47.750 5.500

LUMINANCE IN CANDELA PER SQUARE METER

Table with 4 columns (ANGLE IN DEG, AVERAGE 0-DEG, AVERAGE 45-DEG, AVERAGE 90-DEG) and 6 rows (0, 45, 55, 65, 75, 85) showing average luminance values.



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CANDELA DISTRIBUTION

ZONAL LUMEN SUMMARY

Table with 6 columns for Candela Distribution (0.0 to 180) and 2 columns for Zonal Lumen Summary (0-5 to 175-180).

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25 C 1 C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.



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INITIAL ILLUMINATION OF 50 FOOTCANDLES USING LTL TEST NUMBER 07336  
 LUMINAIRE SUSPENSION LENGTH = 1.5  
 WORKING PLANE HEIGHT = 2.50  
 FLOOR REFLECTANCE = 20

| ROOM HT |        | 8  |    |    |    | 9  |    |    |    | 10 |    |    |    | 12 |    |    |    |
|---------|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| CEIL RF |        | 80 |    | 70 |    | 80 |    | 70 |    | 80 |    | 70 |    | 80 |    | 70 |    |
| WALL RF |        | 70 | 50 | 50 | 30 | 70 | 50 | 50 | 30 | 70 | 50 | 50 | 30 | 70 | 50 | 50 | 30 |
| WIDTH   | LENGTH |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 10.     | 10.    | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 1  | 2  | 1  | 2  | 2  | 2  |
| 10.     | 15.    | 1  | 1  | 2  | 2  | 1  | 2  | 2  | 2  | 1  | 2  | 2  | 2  | 2  | 2  | 2  | 2  |
| 15.     | 20.    | 2  | 2  | 2  | 3  | 2  | 2  | 3  | 3  | 2  | 2  | 3  | 3  | 2  | 3  | 3  | 3  |
| 15.     | 30.    | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 4  | 3  | 3  | 4  | 4  | 3  | 4  | 4  | 4  |
| 20.     | 20.    | 2  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 3  | 4  | 3  | 3  | 4  | 4  |
| 20.     | 30.    | 3  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 4  | 5  | 4  | 4  | 5  | 5  |
| 20.     | 40.    | 4  | 5  | 5  | 5  | 4  | 5  | 5  | 6  | 5  | 5  | 5  | 6  | 5  | 5  | 6  | 7  |
| 20.     | 60.    | 6  | 6  | 7  | 7  | 6  | 7  | 7  | 8  | 6  | 7  | 8  | 8  | 7  | 8  | 8  | 9  |
| 30.     | 30.    | 5  | 5  | 6  | 6  | 5  | 5  | 6  | 6  | 5  | 5  | 6  | 6  | 5  | 6  | 6  | 7  |
| 30.     | 40.    | 6  | 6  | 7  | 7  | 6  | 7  | 7  | 8  | 6  | 7  | 8  | 8  | 7  | 7  | 8  | 9  |
| 30.     | 50.    | 7  | 8  | 9  | 9  | 8  | 8  | 9  | 9  | 8  | 8  | 9  | 10 | 8  | 9  | 10 | 10 |
| 30.     | 60.    | 9  | 9  | 10 | 10 | 9  | 9  | 10 | 11 | 9  | 10 | 11 | 11 | 9  | 10 | 11 | 12 |
| 60.     | 60.    | 16 | 17 | 19 | 19 | 17 | 17 | 19 | 20 | 17 | 18 | 20 | 20 | 17 | 18 | 21 | 21 |
| 60.     | 80.    | 22 | 22 | 25 | 25 | 22 | 23 | 25 | 26 | 22 | 23 | 26 | 27 | 23 | 24 | 27 | 28 |
| 60.     | 100.   | 27 | 27 | 31 | 31 | 27 | 28 | 31 | 32 | 27 | 28 | 32 | 33 | 28 | 29 | 33 | 34 |
| 100.    | 100.   | 44 | 45 | 50 | 51 | 44 | 45 | 51 | 51 | 45 | 46 | 51 | 52 | 45 | 47 | 53 | 54 |

QUANTITY OF LUMINAIRES