



IES INDOOR REPORT
PHOTOMETRIC FILENAME : SW-4-45L-840.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] LED-12471
[TESTLAB] LSI INDUSTRIES, INC.
[ISSUE DATE] 02/17/21
[TEST DATE] 02/03/21
[MANUFAC] LSI INDUSTRIES, INC.
[LUMCAT] SW-4-45L-840
[OTHER] TEST PROCEDURE: IESNA LM-79-08
[ABSOLUTE] NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER] SCALED FROM ORIGINAL TEST DATA
[SEARCH_SOURCETYPE] LED
[SEARCH_APPLICATION] Indoor
[SEARCH_COLORTEMP] 4000

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 4510 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 133 |
| Total Luminaire Watts | 34 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Direct |
| Spacing Criterion (0-180) | 1.26 |
| Spacing Criterion (90-270) | 1.26 |
| Spacing Criterion (Diagonal) | 1.36 |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 3.90 ft |
| Luminous Width (90-270) | 0.35 ft |
| Luminous Height | 0.23 ft |



LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 7607 | 5806 | 5432 |
| 55 | 6398 | 4918 | 5017 |
| 65 | 5080 | 4334 | 5091 |
| 75 | 3842 | 4108 | 5087 |
| 85 | 2322 | 3955 | 4556 |

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CANDELA TABULATION

| | <u>0.0</u> | <u>22.5</u> | <u>45.0</u> | <u>67.5</u> | <u>90.0</u> |
|-------|------------|-------------|-------------|-------------|-------------|
| 0.0 | 1227 | 1227 | 1227 | 1227 | 1227 |
| 2.5 | 1259 | 1238 | 1228 | 1220 | 1210 |
| 5.0 | 1258 | 1238 | 1230 | 1223 | 1215 |
| 7.5 | 1254 | 1236 | 1231 | 1225 | 1218 |
| 10.0 | 1245 | 1230 | 1227 | 1222 | 1215 |
| 12.5 | 1232 | 1221 | 1220 | 1216 | 1208 |
| 15.0 | 1218 | 1209 | 1208 | 1204 | 1197 |
| 17.5 | 1197 | 1191 | 1191 | 1188 | 1182 |
| 20.0 | 1174 | 1171 | 1171 | 1168 | 1161 |
| 22.5 | 1146 | 1146 | 1146 | 1143 | 1136 |
| 25.0 | 1112 | 1117 | 1118 | 1113 | 1106 |
| 27.5 | 1076 | 1084 | 1085 | 1080 | 1072 |
| 30.0 | 1035 | 1047 | 1050 | 1045 | 1036 |
| 32.5 | 991 | 1005 | 1010 | 1006 | 997 |
| 35.0 | 943 | 961 | 967 | 964 | 958 |
| 37.5 | 892 | 912 | 922 | 923 | 918 |
| 40.0 | 839 | 861 | 877 | 883 | 879 |
| 42.5 | 779 | 809 | 832 | 843 | 842 |
| 45.0 | 723 | 758 | 785 | 805 | 808 |
| 47.5 | 667 | 705 | 739 | 769 | 777 |
| 50.0 | 612 | 654 | 696 | 735 | 750 |
| 52.5 | 558 | 604 | 657 | 706 | 726 |
| 55.0 | 505 | 555 | 617 | 679 | 708 |
| 57.5 | 453 | 507 | 581 | 657 | 693 |
| 60.0 | 403 | 462 | 545 | 637 | 680 |
| 62.5 | 357 | 417 | 514 | 620 | 669 |
| 65.0 | 307 | 377 | 485 | 605 | 658 |
| 67.5 | 264 | 339 | 458 | 590 | 645 |
| 70.0 | 225 | 304 | 434 | 574 | 628 |
| 72.5 | 188 | 272 | 412 | 555 | 605 |
| 75.0 | 154 | 243 | 390 | 533 | 577 |
| 77.5 | 124 | 216 | 369 | 506 | 545 |
| 80.0 | 95 | 190 | 347 | 474 | 508 |
| 82.5 | 67 | 167 | 322 | 440 | 470 |
| 85.0 | 43 | 143 | 297 | 403 | 429 |
| 87.5 | 21 | 122 | 269 | 365 | 387 |
| 90.0 | 3 | 101 | 243 | 325 | 344 |
| 92.5 | 1 | 95 | 227 | 300 | 316 |
| 95.0 | 1 | 92 | 214 | 280 | 291 |
| 97.5 | 1 | 88 | 202 | 258 | 269 |
| 100.0 | 1 | 85 | 189 | 241 | 249 |
| 102.5 | 1 | 81 | 178 | 224 | 233 |
| 105.0 | 1 | 77 | 168 | 209 | 217 |
| 107.5 | 1 | 72 | 158 | 197 | 205 |
| 110.0 | 1 | 66 | 151 | 185 | 193 |
| 112.5 | 1 | 59 | 142 | 176 | 183 |
| 115.0 | 1 | 53 | 134 | 169 | 175 |
| 117.5 | 1 | 46 | 126 | 161 | 169 |
| 120.0 | 1 | 39 | 117 | 153 | 161 |
| 122.5 | 1 | 33 | 108 | 145 | 154 |
| 125.0 | 1 | 27 | 99 | 135 | 145 |
| 127.5 | 1 | 21 | 90 | 127 | 136 |
| 130.0 | 1 | 17 | 81 | 117 | 128 |
| 132.5 | 1 | 11 | 72 | 108 | 118 |

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CANDELA TABULATION - (Cont.)

| | | | | | |
|-------|---|---|----|----|-----|
| 135.0 | 1 | 5 | 63 | 98 | 109 |
| 137.5 | 1 | 2 | 55 | 88 | 99 |
| 140.0 | 1 | 1 | 45 | 78 | 89 |
| 142.5 | 1 | 1 | 37 | 68 | 78 |
| 145.0 | 1 | 1 | 28 | 58 | 67 |
| 147.5 | 1 | 1 | 20 | 47 | 56 |
| 150.0 | 1 | 1 | 12 | 37 | 46 |
| 152.5 | 1 | 1 | 3 | 27 | 35 |
| 155.0 | 1 | 1 | 1 | 17 | 24 |
| 157.5 | 1 | 1 | 1 | 7 | 13 |
| 160.0 | 1 | 1 | 1 | 1 | 3 |
| 162.5 | 1 | 1 | 1 | 1 | 1 |
| 165.0 | 1 | 1 | 1 | 1 | 1 |
| 167.5 | 2 | 1 | 1 | 1 | 1 |
| 170.0 | 1 | 1 | 1 | 1 | 1 |
| 172.5 | 2 | 1 | 1 | 1 | 1 |
| 175.0 | 2 | 1 | 1 | 1 | 1 |
| 177.5 | 2 | 1 | 1 | 1 | 1 |
| 180.0 | 1 | 1 | 1 | 1 | 1 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 457.81 | N.A. | 10.20 |
| 0-30 | 970.57 | N.A. | 21.50 |
| 0-40 | 1571.04 | N.A. | 34.80 |
| 0-60 | 2724.18 | N.A. | 60.40 |
| 0-80 | 3612.54 | N.A. | 80.10 |
| 0-90 | 3906.57 | N.A. | 86.60 |
| 10-90 | 3789.1 | N.A. | 84.00 |
| 20-40 | 1113.23 | N.A. | 24.70 |
| 20-50 | 1714.72 | N.A. | 38.00 |
| 40-70 | 1637.39 | N.A. | 36.30 |
| 60-80 | 888.36 | N.A. | 19.70 |
| 70-80 | 404.11 | N.A. | 9.00 |
| 80-90 | 294.02 | N.A. | 6.50 |
| 90-110 | 350.06 | N.A. | 7.80 |
| 90-120 | 460.37 | N.A. | 10.20 |
| 90-130 | 535.68 | N.A. | 11.90 |
| 90-150 | 598.40 | N.A. | 13.30 |
| 90-180 | 602.96 | N.A. | 13.40 |
| 110-180 | 252.90 | N.A. | 5.60 |
| 0-180 | 4509.52 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 117.46 |
| 10-20 | 340.35 |
| 20-30 | 512.76 |
| 30-40 | 600.47 |
| 40-50 | 601.50 |
| 50-60 | 551.64 |
| 60-70 | 484.25 |
| 70-80 | 404.11 |
| 80-90 | 294.02 |
| 90-100 | 200.33 |
| 100-110 | 149.73 |
| 110-120 | 110.32 |
| 120-130 | 75.31 |
| 130-140 | 43.41 |
| 140-150 | 19.31 |
| 150-160 | 4.16 |
| 160-170 | 0.30 |
| 170-180 | 0.10 |

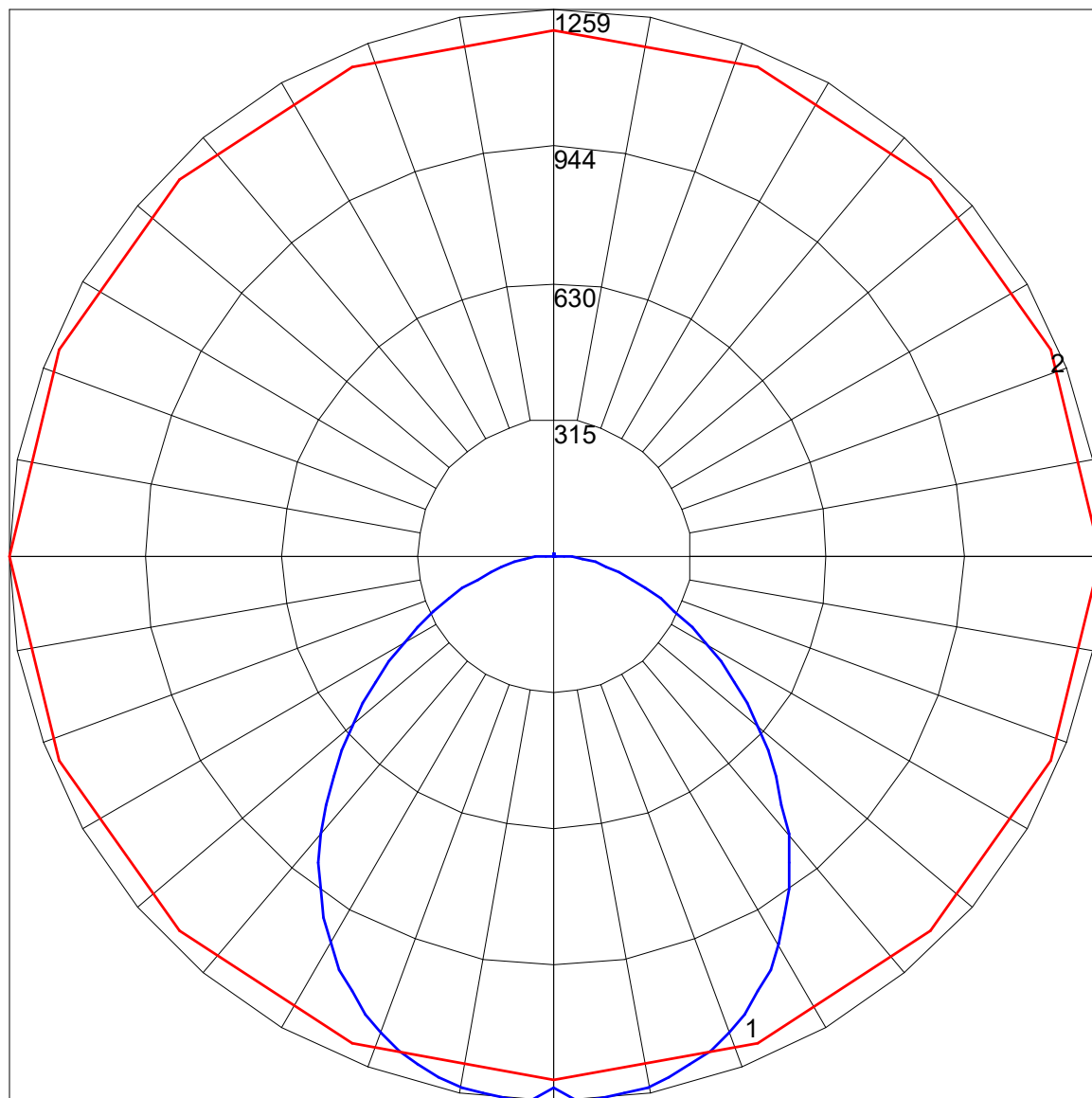
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

| RC | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 104 | 104 | 104 | 96 | 96 | 96 | 90 | 90 | 90 | 87 |
| 1 | 103 | 98 | 93 | 88 | 99 | 94 | 89 | 85 | 87 | 84 | 80 | 81 | 78 | 75 | 75 | 73 | 71 | 68 |
| 2 | 93 | 84 | 77 | 70 | 89 | 81 | 74 | 68 | 75 | 70 | 65 | 70 | 65 | 61 | 65 | 61 | 58 | 55 |
| 3 | 85 | 73 | 65 | 58 | 81 | 71 | 63 | 56 | 66 | 59 | 54 | 61 | 56 | 51 | 57 | 52 | 49 | 46 |
| 4 | 77 | 65 | 56 | 49 | 74 | 63 | 54 | 48 | 58 | 51 | 45 | 54 | 48 | 43 | 51 | 46 | 41 | 39 |
| 5 | 71 | 58 | 49 | 42 | 68 | 56 | 47 | 41 | 52 | 45 | 39 | 49 | 43 | 38 | 46 | 40 | 36 | 33 |
| 6 | 66 | 52 | 43 | 36 | 63 | 50 | 42 | 36 | 47 | 40 | 34 | 44 | 38 | 33 | 41 | 36 | 32 | 29 |
| 7 | 61 | 47 | 38 | 32 | 58 | 46 | 37 | 31 | 43 | 36 | 30 | 40 | 34 | 29 | 38 | 32 | 28 | 26 |
| 8 | 57 | 43 | 34 | 28 | 54 | 42 | 34 | 28 | 39 | 32 | 27 | 37 | 31 | 26 | 35 | 29 | 25 | 23 |
| 9 | 53 | 39 | 31 | 26 | 51 | 38 | 30 | 25 | 36 | 29 | 24 | 34 | 28 | 23 | 32 | 27 | 23 | 21 |
| 10 | 50 | 36 | 28 | 23 | 48 | 35 | 28 | 23 | 33 | 27 | 22 | 32 | 26 | 21 | 30 | 25 | 21 | 19 |

POLAR GRAPH



Maximum Candela = 1259 Located At Horizontal Angle = 0, Vertical Angle = 2.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (2.5) (Through Max. Cd.)