



IES INDOOR REPORT
PHOTOMETRIC FILENAME : LHBXD11-LED-24L-LL-50.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8606R_Scaled
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]05/02/17
[TEST DATE]02/23/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMEN CATEGORY]LHBXD_LHB11-LED-24L-LL-50
[ABSOLUTE]NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.
[OTHER]TEST PROCEDURE: IESNA LM-79-08
[SEARCH_SOURCE TYPE] LED
[SEARCH_APPLICATION] Outdoor

CHARACTERISTICS

| | |
|---------------------------------|-----------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 23487 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 155 |
| Total Luminaire Watts | 152 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.38 |
| Spacing Criterion (90-270) | 1.36 |
| Spacing Criterion (Diagonal) | 1.50 |
| Basic Luminous Shape | Rectangular |
| Luminous Length (0-180) | 4.00 ft |
| Luminous Width (90-270) | 0.92 ft |
| Luminous Height | 0.00 ft |

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 24056 | 24123 | 23848 |
| 55 | 24128 | 24284 | 24064 |
| 65 | 23664 | 24100 | 17680 |
| 75 | 21149 | 8147 | 3413 |
| 85 | 15143 | 5792 | 5611 |

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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 | 7499.408 | 7499.408 | 7499.408 | 7499.408 | 7499.408 |
| 2.5 | 7497.615 | 7553.193 | 7528.093 | 7495.822 | 7481.480 |
| 5.0 | 7501.201 | 7556.778 | 7529.886 | 7494.029 | 7477.894 |
| 7.5 | 7495.822 | 7554.986 | 7526.300 | 7490.444 | 7468.930 |
| 10.0 | 7479.687 | 7540.643 | 7510.165 | 7472.515 | 7449.209 |
| 12.5 | 7451.001 | 7511.958 | 7479.687 | 7440.244 | 7416.938 |
| 15.0 | 7409.766 | 7476.101 | 7442.037 | 7399.009 | 7373.910 |
| 17.5 | 7361.360 | 7425.902 | 7393.631 | 7345.224 | 7321.918 |
| 20.0 | 7291.440 | 7363.153 | 7329.089 | 7278.890 | 7255.583 |
| 22.5 | 7216.141 | 7280.683 | 7251.997 | 7198.212 | 7174.906 |
| 25.0 | 7122.914 | 7191.041 | 7158.770 | 7104.985 | 7081.678 |
| 27.5 | 7009.965 | 7081.678 | 7052.993 | 6995.623 | 6975.901 |
| 30.0 | 6888.053 | 6961.559 | 6932.874 | 6868.332 | 6846.818 |
| 32.5 | 6748.212 | 6818.132 | 6789.447 | 6724.905 | 6703.391 |
| 35.0 | 6592.236 | 6658.571 | 6631.678 | 6559.965 | 6545.622 |
| 37.5 | 6420.124 | 6484.666 | 6457.774 | 6387.853 | 6366.339 |
| 40.0 | 6228.291 | 6291.040 | 6256.977 | 6194.228 | 6176.299 |
| 42.5 | 6022.116 | 6083.072 | 6047.216 | 5982.674 | 5970.124 |
| 45.0 | 5799.805 | 5853.590 | 5815.940 | 5762.156 | 5749.606 |
| 47.5 | 5561.359 | 5609.765 | 5572.116 | 5523.709 | 5514.745 |
| 50.0 | 5296.020 | 5342.633 | 5319.327 | 5274.506 | 5263.749 |
| 52.5 | 5023.510 | 5059.366 | 5034.267 | 4998.410 | 4998.410 |
| 55.0 | 4718.729 | 4770.721 | 4749.207 | 4718.729 | 4706.179 |
| 57.5 | 4415.740 | 4469.525 | 4453.390 | 4426.497 | 4412.155 |
| 60.0 | 4096.617 | 4152.194 | 4141.437 | 4107.374 | 4033.867 |
| 62.5 | 3759.564 | 3816.935 | 3815.142 | 3614.345 | 3223.508 |
| 65.0 | 3409.963 | 3470.919 | 3472.712 | 2854.185 | 2547.611 |
| 67.5 | 3044.225 | 3103.389 | 3096.217 | 2131.675 | 1620.718 |
| 70.0 | 2655.181 | 2707.173 | 2353.986 | 1143.826 | 785.260 |
| 72.5 | 2253.587 | 2319.922 | 1649.404 | 605.977 | 347.809 |
| 75.0 | 1866.336 | 1936.256 | 718.925 | 288.646 | 301.195 |
| 77.5 | 1471.913 | 1549.005 | 297.610 | 283.267 | 292.231 |
| 80.0 | 1106.176 | 939.443 | 231.275 | 263.546 | 274.303 |
| 82.5 | 760.160 | 326.295 | 215.140 | 231.275 | 233.068 |
| 85.0 | 450.000 | 150.598 | 172.112 | 170.319 | 166.733 |
| 87.5 | 200.797 | 107.570 | 96.813 | 96.813 | 98.606 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 2817.23 | N.A. | 12.00 |
| 0-30 | 6110.97 | N.A. | 26.00 |
| 0-40 | 10244.51 | N.A. | 43.60 |
| 0-60 | 18950.95 | N.A. | 80.70 |
| 0-80 | 23243.45 | N.A. | 99.00 |
| 0-90 | 23487.19 | N.A. | 100.00 |
| 10-90 | 22770.24 | N.A. | 96.90 |
| 20-40 | 7427.27 | N.A. | 31.60 |
| 20-50 | 11901.45 | N.A. | 50.70 |
| 40-70 | 11818.38 | N.A. | 50.30 |
| 60-80 | 4292.5 | N.A. | 18.30 |
| 70-80 | 1180.57 | N.A. | 5.00 |
| 80-90 | 243.74 | N.A. | 1.00 |
| 90-110 | 0.00 | N.A. | 0.00 |
| 90-120 | 0.00 | N.A. | 0.00 |
| 90-130 | 0.00 | N.A. | 0.00 |
| 90-150 | 0.00 | N.A. | 0.00 |
| 90-180 | 0.00 | N.A. | 0.00 |
| 110-180 | 0.00 | N.A. | 0.00 |
| 0-180 | 23487.19 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 716.95 |
| 10-20 | 2100.28 |
| 20-30 | 3293.74 |
| 30-40 | 4133.54 |
| 40-50 | 4474.17 |
| 50-60 | 4232.27 |
| 60-70 | 3111.93 |
| 70-80 | 1180.57 |
| 80-90 | 243.74 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

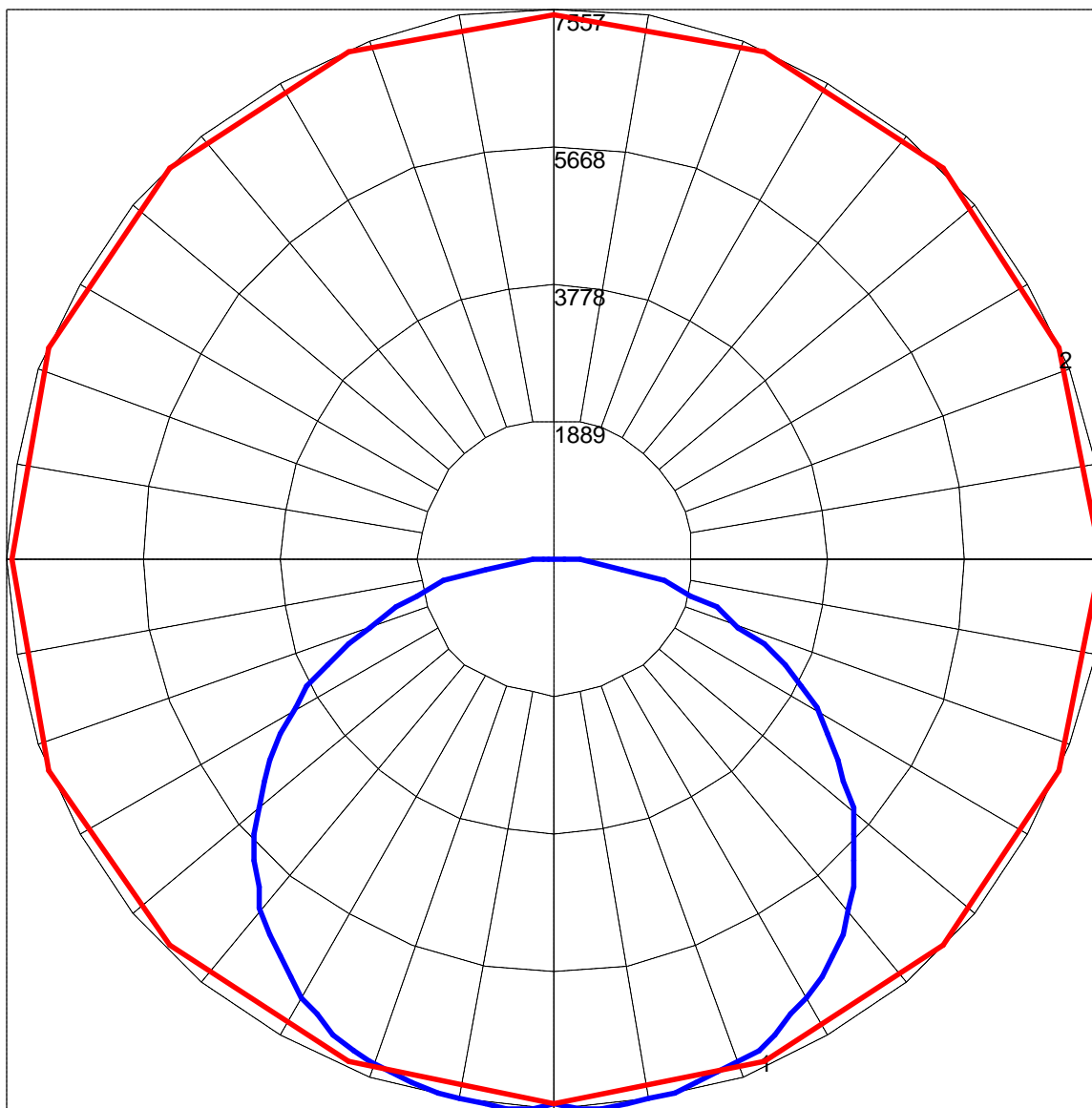
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 109 | 105 | 100 | 97 | 106 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 82 | 78 | 74 | 79 | 76 | 73 | 71 |
| 3 | 90 | 80 | 72 | 65 | 88 | 78 | 71 | 65 | 75 | 69 | 64 | 73 | 67 | 62 | 70 | 65 | 61 | 59 |
| 4 | 83 | 71 | 62 | 55 | 80 | 69 | 61 | 55 | 67 | 60 | 54 | 64 | 58 | 53 | 62 | 57 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 60 | 52 | 46 | 58 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 35 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 |
| 9 | 56 | 42 | 34 | 29 | 55 | 42 | 34 | 28 | 41 | 33 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 |

POLAR GRAPH



Maximum Candela = 7556.778 Located At Horizontal Angle = 22.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (22.5 - 202.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)