



IES INDOOR REPORT
PHOTOMETRIC FILENAME : LHBXD11-LED-12L-S-40.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST]LED-8707R
[TESTLAB]LSI INDUSTRIES, INC
[ISSUE DATE]03/17/17
[TEST DATE]03/17/17
[MANUFACTURER]LSI INDUSTRIES, INC
[LUMEN CATEGORY]LHBXD_LHB11-LED-12L-S-40
[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 | 12137 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 136 |
| Total Luminaire Watts | 89 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.38 |
| Spacing Criterion (90-270) | 1.36 |
| Spacing Criterion (Diagonal) | 1.48 |
| 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 | 12721 | 12721 | 12572 |
| 55 | 12354 | 12384 | 12175 |
| 65 | 11256 | 10965 | 8494 |
| 75 | 8147 | 5462 | 3320 |
| 85 | 4206 | 2490 | 2255 |

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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 | 4022 | 4022 | 4022 | 4022 | 4022 |
| 2.5 | 4009 | 4054 | 4040 | 4024 | 4018 |
| 5.0 | 4016 | 4056 | 4038 | 4020 | 4013 |
| 7.5 | 4015 | 4052 | 4032 | 4010 | 4005 |
| 10.0 | 4010 | 4043 | 4024 | 4002 | 4000 |
| 12.5 | 3999 | 4028 | 4011 | 3992 | 3987 |
| 15.0 | 3979 | 4007 | 3991 | 3972 | 3965 |
| 17.5 | 3954 | 3979 | 3969 | 3942 | 3938 |
| 20.0 | 3918 | 3943 | 3937 | 3905 | 3895 |
| 22.5 | 3876 | 3900 | 3893 | 3860 | 3853 |
| 25.0 | 3829 | 3850 | 3840 | 3806 | 3800 |
| 27.5 | 3768 | 3792 | 3775 | 3745 | 3739 |
| 30.0 | 3702 | 3725 | 3708 | 3676 | 3664 |
| 32.5 | 3622 | 3647 | 3631 | 3594 | 3583 |
| 35.0 | 3533 | 3557 | 3542 | 3501 | 3493 |
| 37.5 | 3430 | 3455 | 3442 | 3402 | 3393 |
| 40.0 | 3319 | 3341 | 3326 | 3292 | 3290 |
| 42.5 | 3199 | 3220 | 3200 | 3176 | 3170 |
| 45.0 | 3067 | 3086 | 3067 | 3043 | 3031 |
| 47.5 | 2918 | 2939 | 2927 | 2894 | 2888 |
| 50.0 | 2763 | 2784 | 2771 | 2737 | 2736 |
| 52.5 | 2590 | 2618 | 2602 | 2570 | 2568 |
| 55.0 | 2416 | 2443 | 2422 | 2390 | 2381 |
| 57.5 | 2227 | 2256 | 2233 | 2191 | 2171 |
| 60.0 | 2035 | 2058 | 2033 | 1959 | 1901 |
| 62.5 | 1828 | 1856 | 1820 | 1689 | 1571 |
| 65.0 | 1622 | 1639 | 1580 | 1351 | 1224 |
| 67.5 | 1390 | 1402 | 1313 | 1025 | 887 |
| 70.0 | 1166 | 1164 | 1013 | 719 | 608 |
| 72.5 | 931 | 935 | 722 | 488 | 421 |
| 75.0 | 719 | 714 | 482 | 333 | 293 |
| 77.5 | 522 | 508 | 317 | 231 | 213 |
| 80.0 | 355 | 326 | 203 | 160 | 153 |
| 82.5 | 220 | 188 | 127 | 107 | 103 |
| 85.0 | 125 | 101 | 74 | 68 | 67 |
| 87.5 | 61 | 45 | 38 | 36 | 37 |
| 90.0 | 0 | 0 | 0 | 0 | 0 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 1511.28 | N.A. | 12.50 |
| 0-30 | 3276.81 | N.A. | 27.00 |
| 0-40 | 5483.62 | N.A. | 45.20 |
| 0-60 | 9990.29 | N.A. | 82.30 |
| 0-80 | 12031.00 | N.A. | 99.10 |
| 0-90 | 12137.21 | N.A. | 100.00 |
| 10-90 | 11752.85 | N.A. | 96.80 |
| 20-40 | 3972.35 | N.A. | 32.70 |
| 20-50 | 6330.51 | N.A. | 52.20 |
| 40-70 | 5978.68 | N.A. | 49.30 |
| 60-80 | 2040.7 | N.A. | 16.80 |
| 70-80 | 568.69 | N.A. | 4.70 |
| 80-90 | 106.21 | N.A. | 0.90 |
| 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 | 12137.21 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 384.36 |
| 10-20 | 1126.91 |
| 20-30 | 1765.54 |
| 30-40 | 2206.81 |
| 40-50 | 2358.16 |
| 50-60 | 2148.5 |
| 60-70 | 1472.02 |
| 70-80 | 568.69 |
| 80-90 | 106.21 |
| 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 |

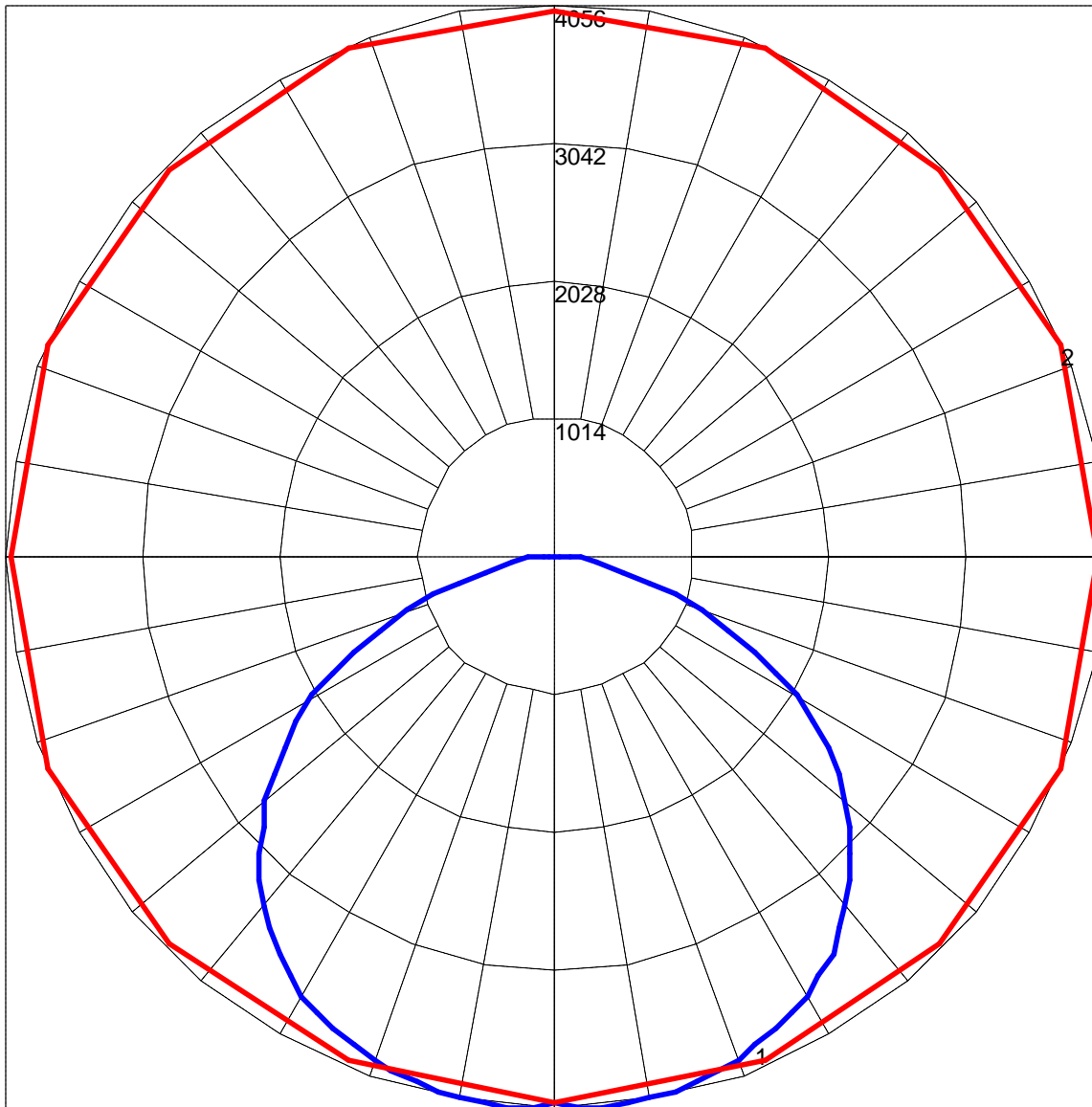
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 101 | 97 | 107 | 103 | 99 | 96 | 98 | 95 | 93 | 95 | 92 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 80 | 97 | 90 | 84 | 79 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 77 | 73 | 71 |
| 3 | 91 | 81 | 73 | 66 | 88 | 79 | 72 | 66 | 76 | 70 | 65 | 73 | 68 | 63 | 71 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 76 | 64 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | 44 |
| 6 | 70 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 38 |
| 7 | 65 | 52 | 43 | 37 | 63 | 51 | 43 | 37 | 49 | 42 | 36 | 48 | 41 | 36 | 47 | 40 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 46 | 38 | 33 | 45 | 38 | 32 | 44 | 37 | 32 | 43 | 37 | 32 | 30 |
| 9 | 57 | 43 | 35 | 29 | 55 | 43 | 35 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 39 | 33 | 29 | 27 |
| 10 | 53 | 40 | 32 | 26 | 52 | 39 | 32 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

POLAR GRAPH



Maximum Candela = 4056 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.)