

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00424_48 ~ C1320YKSSXT-80LXXK-WDEX-MWI.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] SP-00424_48_M-80L

[TESTLAB] Photopia 2017.2.1 see: www.ltiopics.com/ies

[ISSUE DATE]

[TEST DATE] 8/16/2017

[UPDATE] 11/08/2017

[MANUFAC] Spectrum Lighting

[LUMCAT] C1320YKSSXT-80L-xxK-WD-EX-MWI

[LUMINAIRE] Nom. 13" Diam. x 26.5" H Cylinder Downlight, Yoke Mounted, Wide Beam

[OTHER] Integral Straight 3" Matte White (interior) Deep Snoot for Additional Cutoff

[OTHER] Nom. 13" Diam. Cylinder / Nom. 13" Diam Snoot Opening

[OTHER] Matte Black regressed faceplate w/ (4) openings for LEDXT optics

[OTHER] Four (4) LEDXT Reflector modules per Luminaire

[OTHER] 46.6 Degree Beam Angle, 87.5 Degree Field Angle

[LAMPCAT] LED 2000lm

[LAMP] N/A, 19mm

[OTHER] Total Luminaire Watts is approximate

[OTHER] LEDXT lumen output is the same for all available CCT's

[OTHER] This report prepared by Spectrum Lighting, scaled from 200L

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 6369 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 67 |
| Total Luminaire Watts | 94.8 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 0.86 |
| Spacing Criterion (90-270) | 0.84 |
| Spacing Criterion (Diagonal) | 0.72 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 1.25 ft (Diameter) |
| Luminous Width (90-270) | 1.25 ft (Diameter) |
| Luminous Height | 0.00 ft |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00424_48 ~ C1320YKSSXT-80LXXK-WDEX-MWI.IES****LUMINANCE DATA (cd/sq.m)**

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 9232 | 6962 | 8915 |
| 55 | 4965 | 4633 | 4875 |
| 65 | 5117 | 4985 | 5241 |
| 75 | 4508 | 4535 | 4482 |
| 85 | 2642 | 3005 | 2688 |

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CANDELA TABULATION

| | <u>0</u> | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |
|----|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 |
| 5 | 6860.957 | 6800.968 | 6793.985 | 6775.480 | 6807.976 | 6794.872 | 6864.336 | 6729.889 | 6967.892 | 6560.668 |
| 10 | 7650.696 | 7636.364 | 7509.840 | 7512.840 | 7657.412 | 7568.789 | 7619.057 | 7564.248 | 7542.489 | 7592.944 |
| 15 | 7050.776 | 6977.376 | 6980.253 | 7014.672 | 6950.116 | 6966.164 | 6899.125 | 6973.900 | 7059.525 | 6909.344 |
| 20 | 5181.628 | 5205.372 | 5143.340 | 5053.700 | 5068.344 | 5162.564 | 5095.828 | 5102.368 | 5044.368 | 5042.668 |
| 25 | 3917.408 | 3794.332 | 3742.560 | 3654.156 | 3423.232 | 3200.024 | 3012.532 | 2771.768 | 2713.932 | 2650.052 |
| 30 | 2758.756 | 2717.984 | 2453.452 | 2305.696 | 2155.264 | 2055.204 | 2015.440 | 1963.768 | 1983.432 | 1997.572 |
| 35 | 1353.768 | 1458.100 | 1521.936 | 1659.620 | 1688.212 | 1731.284 | 1716.312 | 1700.604 | 1648.296 | 1598.328 |
| 40 | 995.720 | 1015.768 | 996.036 | 943.124 | 979.308 | 1097.964 | 1191.268 | 1378.660 | 1383.324 | 1411.676 |
| 45 | 744.984 | 757.384 | 727.708 | 687.352 | 679.844 | 660.396 | 636.768 | 564.848 | 547.892 | 561.760 |
| 50 | 399.620 | 393.316 | 388.480 | 365.996 | 342.524 | 326.324 | 334.896 | 323.920 | 322.280 | 321.996 |
| 55 | 324.952 | 321.008 | 315.776 | 318.000 | 323.424 | 303.724 | 302.080 | 298.908 | 305.644 | 303.248 |
| 60 | 303.844 | 296.472 | 292.512 | 286.356 | 290.980 | 272.620 | 277.280 | 281.992 | 285.240 | 283.324 |
| 65 | 246.768 | 252.184 | 242.856 | 240.032 | 242.732 | 249.316 | 239.676 | 240.620 | 240.804 | 240.408 |
| 70 | 191.088 | 189.540 | 188.572 | 185.280 | 183.140 | 180.140 | 193.740 | 191.684 | 190.960 | 185.356 |
| 75 | 133.136 | 133.144 | 131.960 | 135.332 | 132.204 | 131.160 | 132.364 | 129.204 | 132.768 | 133.940 |
| 80 | 79.548 | 76.092 | 75.580 | 79.600 | 81.456 | 81.640 | 77.588 | 80.532 | 81.220 | 85.268 |
| 85 | 26.280 | 26.768 | 28.704 | 27.116 | 27.400 | 29.340 | 28.488 | 27.776 | 28.108 | 29.892 |
| 90 | 0.432 | 0.180 | 0.000 | 0.460 | 0.760 | 0.520 | 0.324 | 0.600 | 0.340 | 0.184 |

Vert. Angles Horizontal Angles

| | <u>50</u> | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> |
|----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 | 6918.644 |
| 5 | 6880.112 | 6821.925 | 6770.192 | 6868.000 | 6791.789 | 6763.960 | 6704.292 | 6920.996 | 6787.608 |
| 10 | 7715.653 | 7551.564 | 7500.304 | 7410.168 | 7494.692 | 7656.121 | 7528.268 | 7746.128 | 7543.996 |
| 15 | 6951.936 | 7025.508 | 6953.432 | 6788.253 | 6898.964 | 7068.121 | 6939.468 | 6830.121 | 6970.889 |
| 20 | 5041.216 | 5035.008 | 5085.008 | 5157.340 | 5053.924 | 5187.556 | 5176.312 | 5190.444 | 5120.344 |
| 25 | 2697.876 | 2853.516 | 2981.356 | 3259.364 | 3409.512 | 3578.708 | 3777.584 | 3801.908 | 3789.600 |
| 30 | 2055.808 | 1985.328 | 2018.560 | 2102.272 | 2162.644 | 2318.840 | 2499.360 | 2740.432 | 2725.972 |
| 35 | 1644.200 | 1664.156 | 1680.480 | 1692.036 | 1713.520 | 1651.452 | 1571.324 | 1385.644 | 1327.672 |
| 40 | 1421.096 | 1275.656 | 1181.444 | 1079.412 | 972.944 | 955.980 | 993.088 | 983.004 | 1004.856 |
| 45 | 561.016 | 573.408 | 622.268 | 651.096 | 689.780 | 700.084 | 730.200 | 744.116 | 719.372 |
| 50 | 318.516 | 313.948 | 318.956 | 328.068 | 349.888 | 373.820 | 374.220 | 407.484 | 399.124 |
| 55 | 307.624 | 303.508 | 292.264 | 307.452 | 315.988 | 310.728 | 310.352 | 311.000 | 319.112 |
| 60 | 276.320 | 273.936 | 276.948 | 282.728 | 289.636 | 284.880 | 285.608 | 284.532 | 289.288 |
| 65 | 244.704 | 238.036 | 240.636 | 246.760 | 245.180 | 235.208 | 244.812 | 246.852 | 252.768 |
| 70 | 190.772 | 179.436 | 191.104 | 188.944 | 192.412 | 185.064 | 190.040 | 189.200 | 189.008 |
| 75 | 133.148 | 132.664 | 135.952 | 132.640 | 128.392 | 134.260 | 132.584 | 138.028 | 132.376 |
| 80 | 80.780 | 80.620 | 79.096 | 79.316 | 82.096 | 81.036 | 79.396 | 82.536 | 76.492 |
| 85 | 29.804 | 29.360 | 26.920 | 28.252 | 25.840 | 25.152 | 28.520 | 27.912 | 26.732 |
| 90 | 0.664 | 0.140 | 0.180 | 0.000 | 0.000 | 0.000 | 0.000 | 0.480 | 0.364 |

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| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 2535.00 | N.A. | 39.80 |
| 0-30 | 4115.04 | N.A. | 64.60 |
| 0-40 | 5139.51 | N.A. | 80.70 |
| 0-60 | 5953.88 | N.A. | 93.50 |
| 0-80 | 6332.31 | N.A. | 99.40 |
| 0-90 | 6369.37 | N.A. | 100.00 |
| 10-90 | 5690.91 | N.A. | 89.30 |
| 20-40 | 2604.5 | N.A. | 40.90 |
| 20-50 | 3138.13 | N.A. | 49.30 |
| 40-70 | 1051.9 | N.A. | 16.50 |
| 60-80 | 378.43 | N.A. | 5.90 |
| 70-80 | 140.90 | N.A. | 2.20 |
| 80-90 | 37.06 | N.A. | 0.60 |
| 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 | 6369.37 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 678.46 |
| 10-20 | 1856.54 |
| 20-30 | 1580.03 |
| 30-40 | 1024.47 |
| 40-50 | 533.62 |
| 50-60 | 280.75 |
| 60-70 | 237.53 |
| 70-80 | 140.90 |
| 80-90 | 37.06 |
| 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

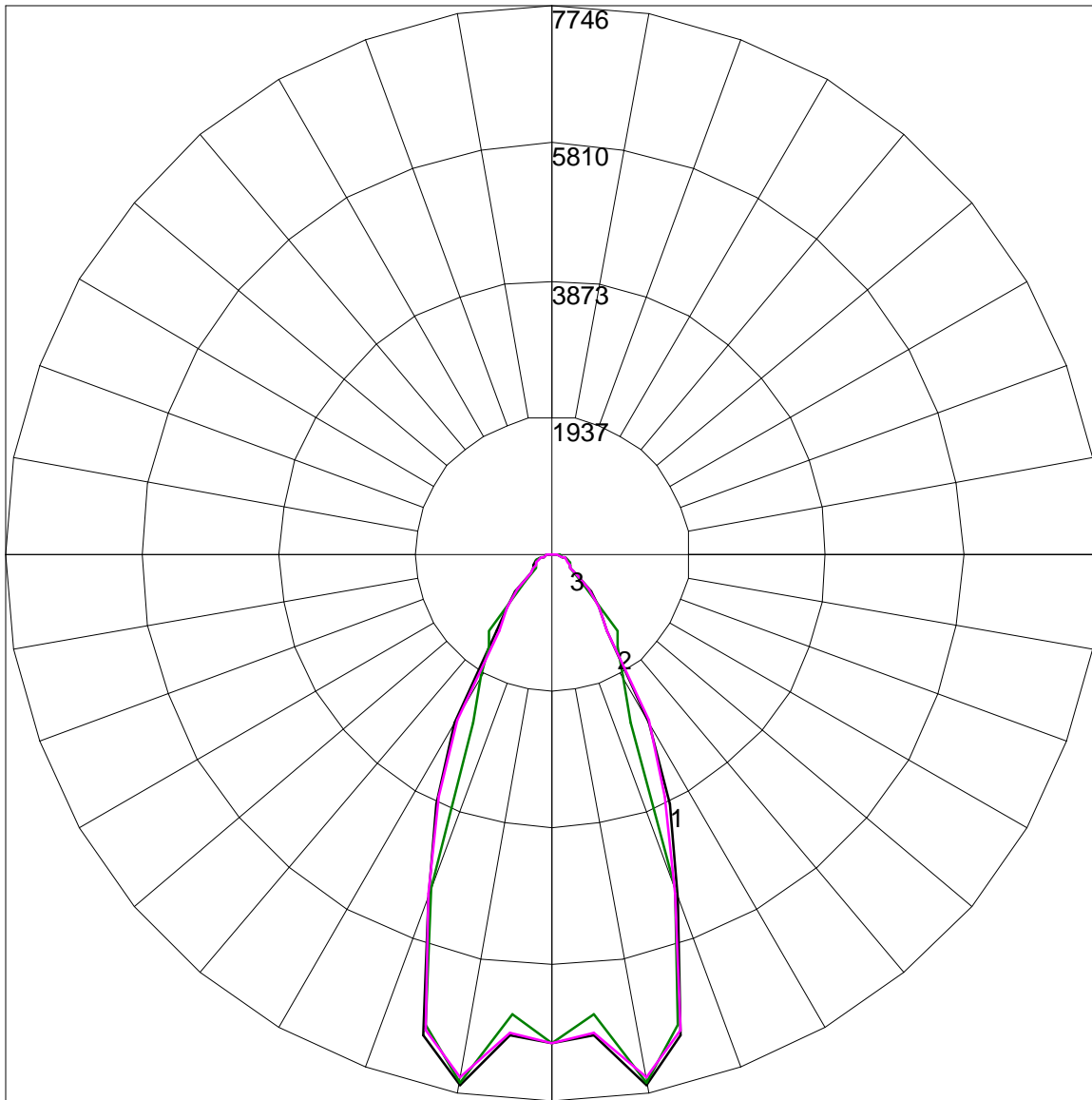
Effective Floor Cavity Reflectance 0.20

| 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 | 112 | 109 | 106 | 104 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 96 | 94 | 93 | 91 |
| 2 | 106 | 100 | 96 | 92 | 104 | 99 | 94 | 91 | 95 | 92 | 89 | 92 | 89 | 87 | 89 | 87 | 85 | 83 |
| 3 | 100 | 93 | 87 | 83 | 98 | 91 | 86 | 82 | 89 | 84 | 81 | 86 | 82 | 79 | 84 | 81 | 78 | 76 |
| 4 | 94 | 86 | 80 | 75 | 92 | 85 | 79 | 75 | 83 | 78 | 74 | 81 | 76 | 73 | 79 | 75 | 72 | 70 |
| 5 | 89 | 80 | 74 | 69 | 88 | 79 | 73 | 69 | 77 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 67 | 65 |
| 6 | 85 | 75 | 69 | 64 | 83 | 74 | 68 | 64 | 73 | 67 | 63 | 71 | 66 | 63 | 70 | 66 | 62 | 61 |
| 7 | 80 | 70 | 64 | 59 | 79 | 70 | 64 | 59 | 68 | 63 | 59 | 67 | 62 | 59 | 66 | 62 | 58 | 57 |
| 8 | 76 | 66 | 60 | 56 | 75 | 66 | 60 | 55 | 65 | 59 | 55 | 64 | 59 | 55 | 63 | 58 | 55 | 53 |
| 9 | 73 | 63 | 56 | 52 | 72 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 59 | 55 | 52 | 50 |
| 10 | 69 | 59 | 53 | 49 | 68 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 56 | 52 | 49 | 47 |

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POLAR GRAPH



Maximum Candela = 7746.128 Located At Horizontal Angle = 85, Vertical Angle = 10

1 - Vertical Plane Through Horizontal Angles (0 - 180)

2 - Vertical Plane Through Horizontal Angles (45 - 225)

3 - Vertical Plane Through Horizontal Angles (90 - 270)