

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00424\_53 ~ C1320YKSSXT-200LXXK-XWEX-MBI.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] SP-00424\_53\_M-200L

[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-200L-xxK-XW-EX-MBI

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

[OTHER] Integral Straight 3" Matte Black (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] 46.8 Degree Beam Angle, 77.4 Degree Field Angle

[LAMPCAT] LED 5000lm

[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

**CHARACTERISTICS**

|                                 |                    |
|---------------------------------|--------------------|
| Lumens Per Lamp                 | N.A. (absolute)    |
| Total Lamp Lumens               | N.A. (absolute)    |
| Luminaire Lumens                | 12556              |
| Total Luminaire Efficiency      | N.A.               |
| Luminaire Efficacy Rating (LER) | 61                 |
| Total Luminaire Watts           | 207                |
| Ballast Factor                  | 1.00               |
| CIE Type                        | Direct             |
| Spacing Criterion (0-180)       | 0.78               |
| Spacing Criterion (90-270)      | 0.76               |
| 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\_53 ~ C1320YKSSXT-200LXXK-XWEX-MBI.IES****LUMINANCE DATA (cd/sq.m)**

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 9831             | 6284              | 9924              |
| 55                  | 0                | 0                 | 0                 |
| 65                  | 0                | 0                 | 0                 |
| 75                  | 0                | 0                 | 0                 |
| 85                  | 0                | 0                 | 0                 |

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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> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>0</b>  | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 |
| <b>5</b>  | 18645.670 | 18333.619 | 18430.900 | 18708.721 | 18544.211 | 18654.250 | 18183.561 | 18763.711 | 18250.500 | 18582.529 |
| <b>10</b> | 17790.650 | 17549.811 | 17347.100 | 17446.740 | 17514.740 | 17304.779 | 17143.801 | 17536.279 | 17422.230 | 17411.520 |
| <b>15</b> | 15708.930 | 15907.040 | 15911.760 | 15736.190 | 15661.080 | 15620.240 | 15948.990 | 15743.490 | 16064.470 | 15989.850 |
| <b>20</b> | 11847.430 | 11661.970 | 11558.130 | 11642.160 | 11888.810 | 11857.920 | 12068.840 | 12132.740 | 12103.680 | 12198.040 |
| <b>25</b> | 8877.000  | 8763.250  | 8728.140  | 8790.820  | 8589.080  | 8124.020  | 7763.340  | 7382.750  | 7325.330  | 7201.370  |
| <b>30</b> | 6216.120  | 6069.200  | 5599.800  | 5351.120  | 5113.000  | 4818.190  | 4917.910  | 4926.630  | 4876.530  | 4911.460  |
| <b>35</b> | 2697.020  | 2738.100  | 3127.780  | 3375.600  | 3588.670  | 3602.640  | 3711.600  | 3635.830  | 3600.280  | 3499.120  |
| <b>40</b> | 1371.130  | 1514.270  | 1381.890  | 1437.170  | 1544.650  | 1865.380  | 2140.310  | 2397.240  | 2631.610  | 2667.790  |
| <b>45</b> | 793.290   | 766.000   | 776.270   | 748.980   | 799.200   | 746.760   | 687.570   | 567.150   | 544.160   | 507.060   |
| <b>50</b> | 82.040    | 101.200   | 76.730    | 52.030    | 18.030    | 3.060     | 0.310     | 0.000     | 0.000     | 0.000     |
| <b>55</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>60</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>65</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>70</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>75</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>80</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>85</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>90</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |

## Vert. 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> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>0</b>  | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 | 18394.830 |
| <b>5</b>  | 18221.250 | 18308.480 | 18675.900 | 18662.699 | 18876.740 | 18666.891 | 18735.150 | 18723.090 | 18347.699 |
| <b>10</b> | 17441.850 | 17472.420 | 17536.029 | 17445.910 | 17694.109 | 17461.449 | 17178.551 | 17536.689 | 17316.029 |
| <b>15</b> | 15845.560 | 15917.320 | 15685.020 | 15728.070 | 15770.240 | 15770.530 | 15889.810 | 15634.160 | 15985.480 |
| <b>20</b> | 12097.490 | 12089.210 | 12000.240 | 11668.520 | 11797.780 | 11658.240 | 11394.640 | 11573.250 | 11530.370 |
| <b>25</b> | 7204.600  | 7377.470  | 7578.460  | 8176.540  | 8433.080  | 8952.990  | 8790.660  | 8858.780  | 8794.200  |
| <b>30</b> | 4831.940  | 4927.180  | 4912.370  | 4887.660  | 5067.130  | 5315.440  | 5570.360  | 6074.640  | 6048.940  |
| <b>35</b> | 3532.640  | 3490.910  | 3724.130  | 3704.090  | 3566.420  | 3423.110  | 3112.640  | 2670.810  | 2737.490  |
| <b>40</b> | 2610.520  | 2373.460  | 2169.870  | 1770.010  | 1620.370  | 1538.390  | 1426.350  | 1455.510  | 1472.610  |
| <b>45</b> | 516.360   | 563.230   | 657.780   | 756.550   | 786.260   | 805.650   | 787.640   | 782.070   | 800.800   |
| <b>50</b> | 0.000     | 0.000     | 0.000     | 2.180     | 22.750    | 50.300    | 69.930    | 89.810    | 103.890   |
| <b>55</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>60</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>65</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>70</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>75</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>80</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>85</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>90</b> | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : SP-00424\_53 ~ C1320YKSSXT-200LXXK-XWEX-MBI.IES****ZONAL LUMEN SUMMARY**

| Zone    | Lumens   | %Lamp | %Fixt  |
|---------|----------|-------|--------|
| 0-20    | 5980.98  | N.A.  | 47.60  |
| 0-30    | 9774.00  | N.A.  | 77.80  |
| 0-40    | 11921.66 | N.A.  | 95.00  |
| 0-60    | 12555.53 | N.A.  | 100.00 |
| 0-80    | 12555.53 | N.A.  | 100.00 |
| 0-90    | 12555.53 | N.A.  | 100.00 |
| 10-90   | 10826.45 | N.A.  | 86.20  |
| 20-40   | 5940.68  | N.A.  | 47.30  |
| 20-50   | 6567.54  | N.A.  | 52.30  |
| 40-70   | 633.87   | N.A.  | 5.00   |
| 60-80   | 0.00     | N.A.  | 0.00   |
| 70-80   | 0.00     | N.A.  | 0.00   |
| 80-90   | 0.00     | N.A.  | 0.00   |
| 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   | 12555.53 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  |
|---------|---------|
| 0-10    | 1729.08 |
| 10-20   | 4251.91 |
| 20-30   | 3793.02 |
| 30-40   | 2147.66 |
| 40-50   | 626.87  |
| 50-60   | 7.00    |
| 60-70   | 0.00    |
| 70-80   | 0.00    |
| 80-90   | 0.00    |
| 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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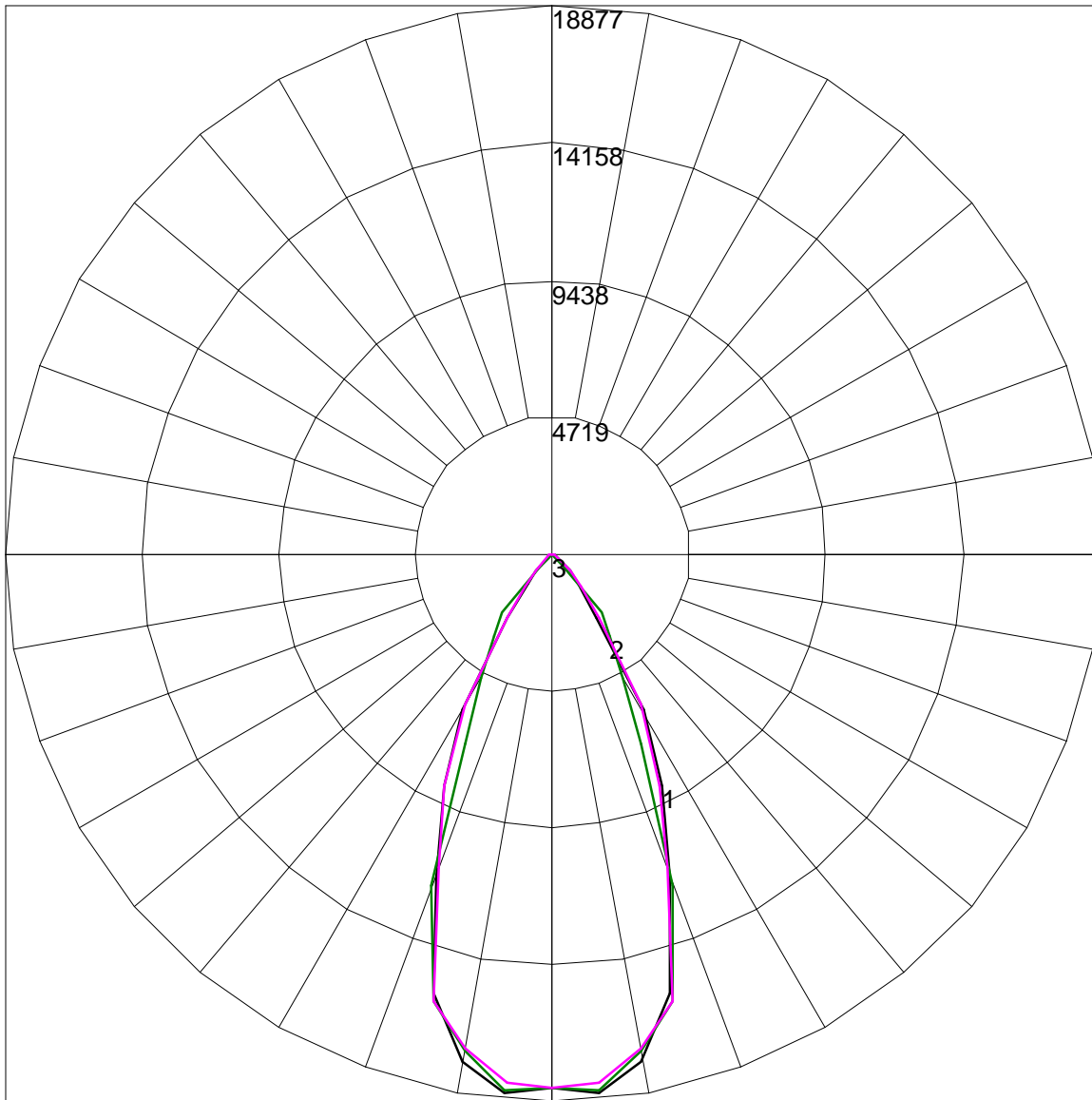
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## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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  | 114 | 111 | 109 | 107 | 111 | 109 | 107 | 105 | 105 | 103 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 94  |
| 2  | 109 | 104 | 100 | 97  | 107 | 103 | 99  | 96  | 99  | 97  | 94  | 96  | 94  | 92  | 94  | 92  | 90  | 89  |
| 3  | 104 | 98  | 93  | 90  | 102 | 96  | 92  | 89  | 94  | 90  | 87  | 91  | 89  | 86  | 89  | 87  | 85  | 83  |
| 4  | 99  | 92  | 87  | 83  | 97  | 91  | 86  | 82  | 89  | 85  | 82  | 87  | 83  | 81  | 85  | 82  | 80  | 78  |
| 5  | 94  | 87  | 81  | 77  | 93  | 86  | 81  | 77  | 84  | 80  | 76  | 82  | 79  | 76  | 81  | 78  | 75  | 74  |
| 6  | 90  | 82  | 76  | 72  | 89  | 81  | 76  | 72  | 80  | 75  | 72  | 78  | 74  | 71  | 77  | 74  | 71  | 69  |
| 7  | 86  | 78  | 72  | 68  | 85  | 77  | 72  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 73  | 70  | 67  | 66  |
| 8  | 82  | 74  | 68  | 64  | 81  | 73  | 68  | 64  | 72  | 67  | 64  | 71  | 67  | 63  | 70  | 66  | 63  | 62  |
| 9  | 79  | 70  | 64  | 61  | 78  | 69  | 64  | 61  | 68  | 64  | 60  | 68  | 63  | 60  | 67  | 63  | 60  | 59  |
| 10 | 75  | 66  | 61  | 57  | 75  | 66  | 61  | 57  | 65  | 61  | 57  | 65  | 60  | 57  | 64  | 60  | 57  | 56  |

POLAR GRAPH



Maximum Candela = 18876.74 Located At Horizontal Angle = 70, Vertical Angle = 5

- # 1 - Vertical Plane Through Horizontal Angles (0 - 180)
- # 2 - Vertical Plane Through Horizontal Angles (45 - 225)
- # 3 - Vertical Plane Through Horizontal Angles (90 - 270)