

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGW5LEDOS-45L35KEX-AR5923OSSGSK.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] 102560753CRT-013_M-45L
[TESTLAB] Intertek
[ISSUE DATE] 11/11/2016
[UPDATE] 1/4/2017
[LAB-REF LUMCAT] CRT1611041146-002_M-45L
[MANUFAC] Spectrum Lighting
[LUMCAT] SGW5LEDOS-45L-35K-EX-AR5923OS-SG-SK
[LUMINAIRE] 5" Aperture Recessed WallWasher Downlight
[TRIM] Semi-diffuse anodized cone, regressed Linear Prism Lens
[OTHER] Perpendicular Orientation
[LAMP] N/A
[LAMPCAT] N/A
[OTHER] Total Luminaire Wattage is approximate
[OTHER] CCT Output Multipliers: 40K x 1.0, 30K x 1.0, 27K x 0.946
[OTHER] This report updated by Spectrum Lighting, scaled from 30L

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 2986 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 73 |
| Total Luminaire Watts | 41.1 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.08 |
| Spacing Criterion (90-270) | 0.90 |
| Spacing Criterion (Diagonal) | 0.94 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.42 ft (Diameter) |
| Luminous Width (90-270) | 0.42 ft (Diameter) |
| Luminous Height | 0.00 ft |

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LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 100369 | 64969 | 41639 |
| 55 | 78531 | 34729 | 16043 |
| 65 | 77633 | 18702 | 979 |
| 75 | 87040 | 9765 | 0 |
| 85 | 30448 | 0 | 0 |

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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> | <u>112.5</u> | <u>135.0</u> | <u>157.5</u> | <u>180.0</u> | <u>202.5</u> |
|-------------|------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| 0.0 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 |
| 2.5 | 2739.776 | 2734.004 | 2727.344 | 2715.948 | 2700.556 | 2687.976 | 2670.660 | 2662.668 | 2656.452 | 2662.668 |
| 5.0 | 2745.104 | 2738.148 | 2717.576 | 2695.228 | 2666.072 | 2634.252 | 2600.804 | 2577.568 | 2564.248 | 2577.568 |
| 7.5 | 2741.996 | 2727.196 | 2695.228 | 2649.496 | 2612.940 | 2566.468 | 2512.448 | 2467.160 | 2447.032 | 2467.160 |
| 10.0 | 2708.400 | 2694.044 | 2651.864 | 2586.892 | 2532.280 | 2473.968 | 2394.048 | 2344.320 | 2314.128 | 2344.320 |
| 12.5 | 2662.520 | 2642.984 | 2586.004 | 2502.236 | 2441.112 | 2368.740 | 2280.088 | 2198.540 | 2162.428 | 2198.540 |
| 15.0 | 2598.584 | 2572.092 | 2496.464 | 2404.112 | 2329.520 | 2243.088 | 2136.380 | 2043.288 | 1999.480 | 2043.288 |
| 17.5 | 2517.332 | 2478.704 | 2389.756 | 2281.568 | 2203.276 | 2102.636 | 1979.944 | 1865.984 | 1813.148 | 1865.984 |
| 20.0 | 2413.288 | 2370.220 | 2263.364 | 2137.712 | 2051.576 | 1948.568 | 1804.860 | 1675.656 | 1611.424 | 1675.656 |
| 22.5 | 2290.448 | 2241.460 | 2126.020 | 1987.640 | 1892.180 | 1782.660 | 1627.852 | 1483.552 | 1411.328 | 1483.552 |
| 25.0 | 2171.900 | 2114.180 | 1980.684 | 1827.800 | 1728.640 | 1611.868 | 1450.992 | 1295.444 | 1225.144 | 1295.444 |
| 27.5 | 2034.260 | 1970.620 | 1820.992 | 1660.264 | 1563.768 | 1446.848 | 1273.096 | 1114.736 | 1045.028 | 1114.736 |
| 30.0 | 1904.168 | 1821.732 | 1653.900 | 1478.076 | 1366.632 | 1271.172 | 1099.492 | 940.244 | 871.572 | 940.244 |
| 32.5 | 1751.432 | 1651.088 | 1472.600 | 1260.960 | 1150.848 | 1070.040 | 939.652 | 778.628 | 712.768 | 778.628 |
| 35.0 | 1587.004 | 1471.860 | 1276.944 | 1047.396 | 952.676 | 880.452 | 783.068 | 632.552 | 572.908 | 632.552 |
| 37.5 | 1413.104 | 1285.528 | 1065.896 | 858.992 | 790.024 | 717.356 | 623.524 | 501.276 | 447.700 | 501.276 |
| 40.0 | 1234.172 | 1113.848 | 879.416 | 718.096 | 677.988 | 594.664 | 490.028 | 384.948 | 342.620 | 384.948 |
| 42.5 | 1064.860 | 960.520 | 718.688 | 589.928 | 508.084 | 488.400 | 377.844 | 291.116 | 254.856 | 291.116 |
| 45.0 | 914.344 | 817.108 | 591.852 | 444.148 | 379.324 | 355.496 | 286.972 | 214.008 | 185.296 | 214.008 |
| 47.5 | 790.616 | 691.456 | 484.700 | 336.996 | 293.336 | 257.224 | 214.452 | 154.956 | 132.312 | 154.956 |
| 50.0 | 696.636 | 589.632 | 387.168 | 266.844 | 228.068 | 191.808 | 149.480 | 109.520 | 87.912 | 109.520 |
| 52.5 | 629.000 | 515.484 | 309.764 | 204.832 | 162.652 | 136.456 | 100.196 | 72.224 | 51.356 | 72.224 |
| 55.0 | 580.308 | 461.168 | 256.632 | 151.404 | 118.548 | 91.464 | 66.452 | 40.108 | 23.088 | 40.108 |
| 57.5 | 539.608 | 418.692 | 212.232 | 111.888 | 82.584 | 62.604 | 40.996 | 16.280 | 6.512 | 16.280 |
| 60.0 | 495.652 | 377.104 | 171.088 | 75.184 | 49.580 | 36.704 | 19.684 | 1.776 | 0.000 | 1.776 |
| 62.5 | 456.432 | 336.700 | 132.608 | 42.476 | 22.792 | 16.428 | 5.772 | 0.000 | 0.000 | 0.000 |
| 65.0 | 422.688 | 302.956 | 101.824 | 19.388 | 5.328 | 3.256 | 0.000 | 0.000 | 0.000 | 0.000 |
| 67.5 | 393.680 | 277.352 | 80.512 | 7.992 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 70.0 | 368.816 | 252.784 | 63.492 | 3.404 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 72.5 | 334.776 | 220.816 | 46.768 | 0.148 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 75.0 | 290.228 | 182.780 | 32.560 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 77.5 | 237.244 | 142.376 | 20.424 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 80.0 | 183.372 | 96.940 | 10.804 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 82.5 | 102.712 | 49.136 | 2.220 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 85.0 | 34.188 | 11.692 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 87.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Vert. Angles **Horizontal Angles**

| | <u>225.0</u> | <u>247.5</u> | <u>270.0</u> | <u>292.5</u> | <u>315.0</u> | <u>337.5</u> | <u>360.0</u> |
|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.0 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 | 2710.916 |
| 2.5 | 2670.660 | 2687.976 | 2700.556 | 2715.948 | 2727.344 | 2734.004 | 2739.776 |
| 5.0 | 2600.804 | 2634.252 | 2666.072 | 2695.228 | 2717.576 | 2738.148 | 2745.104 |
| 7.5 | 2512.448 | 2566.468 | 2612.940 | 2649.496 | 2695.228 | 2727.196 | 2741.996 |
| 10.0 | 2394.048 | 2473.968 | 2532.280 | 2586.892 | 2651.864 | 2694.044 | 2708.400 |
| 12.5 | 2280.088 | 2368.740 | 2441.112 | 2502.236 | 2586.004 | 2642.984 | 2662.520 |
| 15.0 | 2136.380 | 2243.088 | 2329.520 | 2404.112 | 2496.464 | 2572.092 | 2598.584 |
| 17.5 | 1979.944 | 2102.636 | 2203.276 | 2281.568 | 2389.756 | 2478.704 | 2517.332 |
| 20.0 | 1804.860 | 1948.568 | 2051.576 | 2137.712 | 2263.364 | 2370.220 | 2413.288 |
| 22.5 | 1627.852 | 1782.660 | 1892.180 | 1987.640 | 2126.020 | 2241.460 | 2290.448 |
| 25.0 | 1450.992 | 1611.868 | 1728.640 | 1827.800 | 1980.684 | 2114.180 | 2171.900 |
| 27.5 | 1273.096 | 1446.848 | 1563.768 | 1660.264 | 1820.992 | 1970.620 | 2034.260 |
| 30.0 | 1099.492 | 1271.172 | 1366.632 | 1478.076 | 1653.900 | 1821.732 | 1904.168 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | |
|-------------|---------|----------|----------|----------|----------|----------|----------|
| 32.5 | 939.652 | 1070.040 | 1150.848 | 1260.960 | 1472.600 | 1651.088 | 1751.432 |
| 35.0 | 783.068 | 880.452 | 952.676 | 1047.396 | 1276.944 | 1471.860 | 1587.004 |
| 37.5 | 623.524 | 717.356 | 790.024 | 858.992 | 1065.896 | 1285.528 | 1413.104 |
| 40.0 | 490.028 | 594.664 | 677.988 | 718.096 | 879.416 | 1113.848 | 1234.172 |
| 42.5 | 377.844 | 488.400 | 508.084 | 589.928 | 718.688 | 960.520 | 1064.860 |
| 45.0 | 286.972 | 355.496 | 379.324 | 444.148 | 591.852 | 817.108 | 914.344 |
| 47.5 | 214.452 | 257.224 | 293.336 | 336.996 | 484.700 | 691.456 | 790.616 |
| 50.0 | 149.480 | 191.808 | 228.068 | 266.844 | 387.168 | 589.632 | 696.636 |
| 52.5 | 100.196 | 136.456 | 162.652 | 204.832 | 309.764 | 515.484 | 629.000 |
| 55.0 | 66.452 | 91.464 | 118.548 | 151.404 | 256.632 | 461.168 | 580.308 |
| 57.5 | 40.996 | 62.604 | 82.584 | 111.888 | 212.232 | 418.692 | 539.608 |
| 60.0 | 19.684 | 36.704 | 49.580 | 75.184 | 171.088 | 377.104 | 495.652 |
| 62.5 | 5.772 | 16.428 | 22.792 | 42.476 | 132.608 | 336.700 | 456.432 |
| 65.0 | 0.000 | 3.256 | 5.328 | 19.388 | 101.824 | 302.956 | 422.688 |
| 67.5 | 0.000 | 0.000 | 0.000 | 7.992 | 80.512 | 277.352 | 393.680 |
| 70.0 | 0.000 | 0.000 | 0.000 | 3.404 | 63.492 | 252.784 | 368.816 |
| 72.5 | 0.000 | 0.000 | 0.000 | 0.148 | 46.768 | 220.816 | 334.776 |
| 75.0 | 0.000 | 0.000 | 0.000 | 0.000 | 32.560 | 182.780 | 290.228 |
| 77.5 | 0.000 | 0.000 | 0.000 | 0.000 | 20.424 | 142.376 | 237.244 |
| 80.0 | 0.000 | 0.000 | 0.000 | 0.000 | 10.804 | 96.940 | 183.372 |
| 82.5 | 0.000 | 0.000 | 0.000 | 0.000 | 2.220 | 49.136 | 102.712 |
| 85.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 11.692 | 34.188 |
| 87.5 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90.0 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

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ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 895.01 | N.A. | 30.00 |
| 0-30 | 1677.83 | N.A. | 56.20 |
| 0-40 | 2313.14 | N.A. | 77.50 |
| 0-60 | 2846.62 | N.A. | 95.30 |
| 0-80 | 2978.13 | N.A. | 99.70 |
| 0-90 | 2985.97 | N.A. | 100.00 |
| 10-90 | 2736.3 | N.A. | 91.60 |
| 20-40 | 1418.13 | N.A. | 47.50 |
| 20-50 | 1779.34 | N.A. | 59.60 |
| 40-70 | 617.90 | N.A. | 20.70 |
| 60-80 | 131.50 | N.A. | 4.40 |
| 70-80 | 47.09 | N.A. | 1.60 |
| 80-90 | 7.85 | N.A. | 0.30 |
| 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 | 2985.97 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 249.67 |
| 10-20 | 645.33 |
| 20-30 | 782.82 |
| 30-40 | 635.31 |
| 40-50 | 361.21 |
| 50-60 | 172.27 |
| 60-70 | 84.42 |
| 70-80 | 47.09 |
| 80-90 | 7.85 |
| 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 |

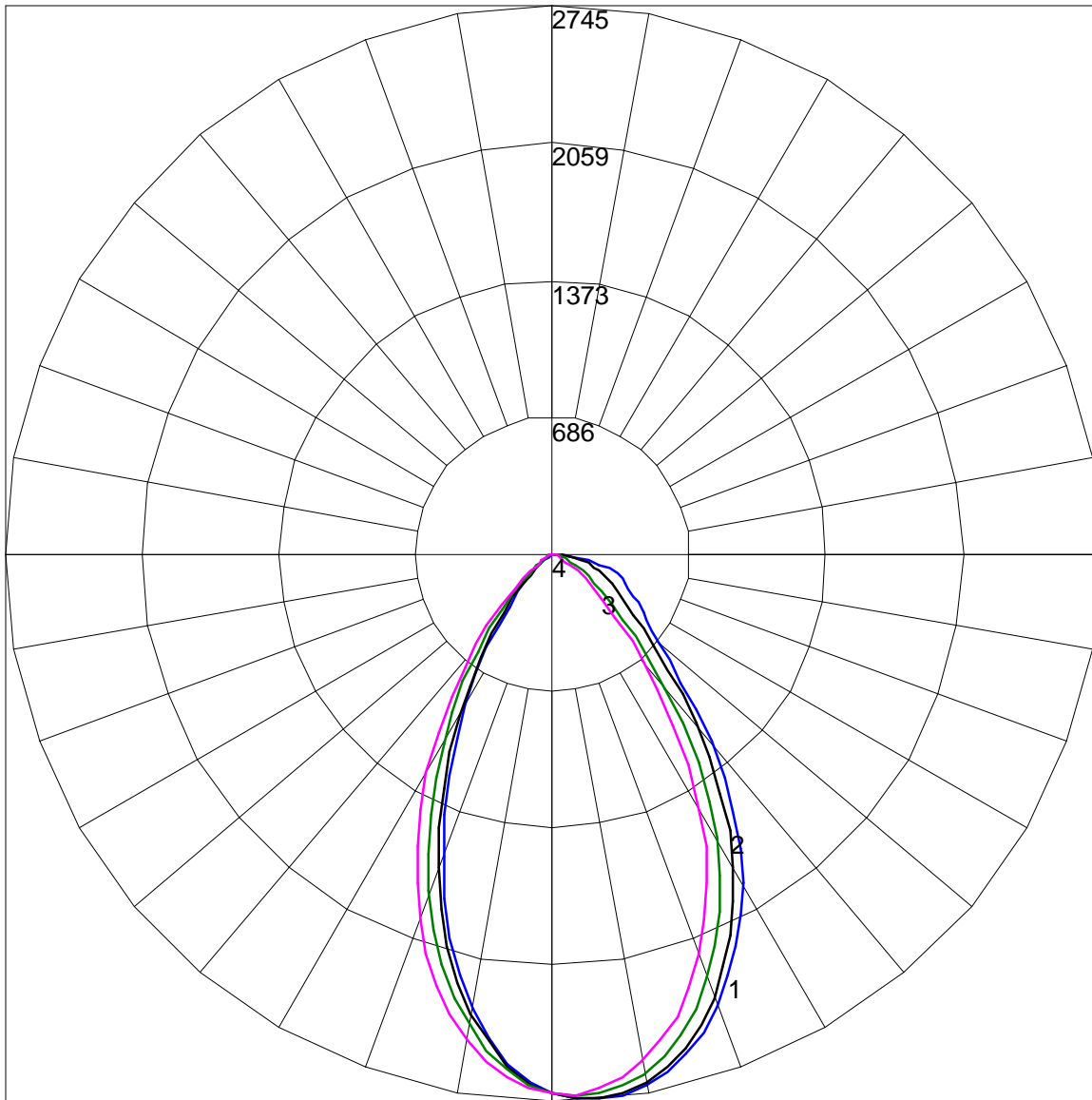
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99 | 99 | 97 | 96 | 96 | 94 | 93 | 91 |
| 2 | 105 | 100 | 95 | 91 | 103 | 98 | 94 | 90 | 95 | 91 | 88 | 92 | 89 | 86 | 89 | 86 | 84 | 82 |
| 3 | 99 | 91 | 86 | 81 | 97 | 90 | 85 | 80 | 87 | 83 | 79 | 85 | 81 | 78 | 82 | 79 | 76 | 75 |
| 4 | 93 | 84 | 78 | 73 | 91 | 83 | 77 | 72 | 81 | 76 | 72 | 79 | 74 | 71 | 77 | 73 | 70 | 68 |
| 5 | 88 | 78 | 71 | 66 | 86 | 77 | 71 | 66 | 75 | 69 | 65 | 73 | 68 | 65 | 72 | 67 | 64 | 62 |
| 6 | 82 | 72 | 65 | 60 | 81 | 71 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 67 | 62 | 59 | 57 |
| 7 | 78 | 67 | 60 | 56 | 76 | 67 | 60 | 55 | 65 | 59 | 55 | 64 | 59 | 55 | 63 | 58 | 54 | 53 |
| 8 | 74 | 63 | 56 | 51 | 72 | 62 | 56 | 51 | 61 | 55 | 51 | 60 | 55 | 51 | 59 | 54 | 51 | 49 |
| 9 | 70 | 59 | 52 | 48 | 68 | 58 | 52 | 48 | 57 | 51 | 47 | 56 | 51 | 47 | 55 | 51 | 47 | 46 |
| 10 | 66 | 55 | 49 | 44 | 65 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 48 | 44 | 52 | 47 | 44 | 43 |

POLAR GRAPH



Maximum Candela = 2745.104 Located At Horizontal Angle = 0, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (22.5 - 202.5)
3 - Vertical Plane Through Horizontal Angles (45 - 225)
4 - Vertical Plane Through Horizontal Angles (67.5 - 247.5)