

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00677_12 ~ SP8ES-15L35K-DX-AR8WES-MW.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] SP-00677_12_M-15L

[TESTLAB] Spectrum Lighting Photometric Lab, VLS-245-981

[MANUFAC] Spectrum Lighting

[ISSUEDATE] 7/27/2018

[UPDATE] 10/10/2018

[LUMCAT] SP8ES-15L35K-DX-AR8WES-MW

[LUMINAIRE] Nom. 8.0" Aperture, LED Wall Wash

[OTHER] Matte white trim, open aperture

[OTHER] Peened 'kicker' reflector

[OTHER] Any flange finish

[LAMP] N/A

[LAMPCAT] N/A, 3500K CCT

[OTHER] Fully regressed lensed, light emitting surface

[OTHER] Total Luminaire Watts is approximate

[OTHER] CCT Output Multipliers: 4000K X 1.03, 3000K X 0.985

[OTHER] This report prepared by Spectrum Lighting, scaled from 20L

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1263 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 84 |
| Total Luminaire Watts | 15 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.30 |
| Spacing Criterion (90-270) | 1.04 |
| Spacing Criterion (Diagonal) | 0.96 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.67 ft (Diameter) |
| Luminous Width (90-270) | 0.67 ft (Diameter) |
| Luminous Height | 0.00 ft |

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SP-00677_12 ~ SP8ES-15L35K-DX-AR8WES-MW.IES****LUMINANCE DATA (cd/sq.m)**

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 23252 | 12124 | 5353 |
| 55 | 24783 | 8141 | 4316 |
| 65 | 18492 | 5191 | 3944 |
| 75 | 10161 | 3450 | 3288 |
| 85 | 2792 | 1415 | 1392 |

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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 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 |
| 2.5 | 901.728 | 899.872 | 899.991 | 898.963 | 899.667 | 897.461 | 899.278 | 895.607 | 893.092 | 894.181 |
| 5.0 | 898.447 | 896.774 | 894.659 | 893.350 | 894.216 | 890.550 | 887.955 | 879.769 | 869.645 | 882.384 |
| 7.5 | 895.022 | 891.832 | 887.186 | 879.702 | 880.948 | 878.780 | 863.561 | 845.173 | 827.507 | 842.485 |
| 10.0 | 891.515 | 884.896 | 879.452 | 864.103 | 867.259 | 864.001 | 828.027 | 791.833 | 765.718 | 793.870 |
| 12.5 | 882.499 | 874.762 | 862.824 | 842.602 | 843.934 | 838.245 | 776.364 | 721.760 | 685.175 | 719.362 |
| 15.0 | 870.968 | 861.044 | 845.654 | 818.159 | 819.590 | 806.966 | 713.768 | 638.080 | 594.007 | 638.962 |
| 17.5 | 857.992 | 842.536 | 819.665 | 786.727 | 782.183 | 762.361 | 638.147 | 546.646 | 494.350 | 544.490 |
| 20.0 | 844.502 | 827.314 | 793.745 | 754.965 | 745.038 | 712.489 | 560.632 | 450.107 | 399.080 | 447.773 |
| 22.5 | 838.959 | 815.665 | 771.668 | 722.572 | 709.813 | 659.915 | 481.279 | 362.215 | 306.647 | 359.503 |
| 25.0 | 835.628 | 805.860 | 749.250 | 689.003 | 673.534 | 606.509 | 406.478 | 279.038 | 237.496 | 272.066 |
| 27.5 | 828.080 | 797.688 | 723.360 | 653.635 | 632.032 | 551.676 | 335.316 | 218.260 | 180.410 | 216.025 |
| 30.0 | 819.689 | 768.014 | 691.842 | 599.765 | 581.869 | 496.512 | 272.351 | 167.149 | 152.032 | 161.599 |
| 32.5 | 775.240 | 722.441 | 625.011 | 522.663 | 500.870 | 427.642 | 214.772 | 144.173 | 135.790 | 145.196 |
| 35.0 | 726.105 | 666.413 | 556.002 | 435.767 | 416.846 | 356.608 | 173.110 | 130.580 | 127.113 | 129.325 |
| 37.5 | 669.237 | 604.145 | 477.416 | 338.722 | 324.372 | 287.041 | 139.841 | 123.002 | 120.901 | 122.181 |
| 40.0 | 611.781 | 552.655 | 402.124 | 253.500 | 239.894 | 217.622 | 123.293 | 116.984 | 115.325 | 115.246 |
| 42.5 | 574.791 | 506.294 | 337.452 | 178.250 | 172.814 | 168.827 | 113.827 | 110.699 | 109.903 | 110.016 |
| 45.0 | 539.035 | 488.591 | 281.068 | 134.283 | 124.089 | 121.285 | 106.135 | 104.365 | 103.545 | 104.707 |
| 47.5 | 531.606 | 481.928 | 245.899 | 112.352 | 107.129 | 108.892 | 99.034 | 97.881 | 97.021 | 98.966 |
| 50.0 | 522.700 | 462.403 | 212.257 | 99.041 | 94.257 | 96.790 | 92.777 | 91.379 | 91.487 | 93.097 |
| 52.5 | 495.877 | 439.103 | 181.679 | 90.620 | 87.253 | 89.686 | 86.728 | 85.217 | 86.062 | 86.719 |
| 55.0 | 466.043 | 394.030 | 153.081 | 82.553 | 81.161 | 82.697 | 80.413 | 79.076 | 79.400 | 80.470 |
| 57.5 | 415.622 | 344.209 | 127.663 | 74.646 | 76.133 | 76.668 | 74.050 | 72.832 | 72.671 | 74.588 |
| 60.0 | 364.474 | 293.071 | 105.475 | 67.815 | 69.695 | 70.564 | 68.230 | 66.590 | 65.846 | 68.118 |
| 62.5 | 309.908 | 241.734 | 87.607 | 61.376 | 61.919 | 64.070 | 62.471 | 60.409 | 59.036 | 60.272 |
| 65.0 | 256.218 | 194.711 | 71.921 | 54.299 | 54.641 | 57.357 | 55.228 | 54.161 | 52.524 | 53.102 |
| 67.5 | 205.381 | 148.412 | 58.543 | 47.052 | 47.749 | 49.847 | 47.941 | 47.342 | 45.949 | 47.135 |
| 70.0 | 159.653 | 112.465 | 47.914 | 39.764 | 41.443 | 42.761 | 41.203 | 40.533 | 39.024 | 41.084 |
| 72.5 | 121.660 | 79.683 | 38.903 | 32.727 | 35.374 | 36.372 | 34.743 | 33.750 | 32.406 | 34.950 |
| 75.0 | 86.216 | 54.157 | 29.276 | 26.767 | 27.901 | 29.475 | 28.856 | 26.940 | 26.227 | 28.861 |
| 77.5 | 54.484 | 35.990 | 20.909 | 20.261 | 20.882 | 22.635 | 21.981 | 20.343 | 19.640 | 22.547 |
| 80.0 | 30.941 | 22.141 | 14.368 | 13.832 | 14.499 | 16.610 | 15.387 | 14.971 | 14.080 | 15.816 |
| 82.5 | 18.275 | 12.155 | 8.934 | 8.353 | 8.959 | 10.505 | 9.559 | 9.574 | 9.792 | 9.810 |
| 85.0 | 7.979 | 5.651 | 4.043 | 4.074 | 3.977 | 5.593 | 4.629 | 5.726 | 5.639 | 5.568 |
| 87.5 | 1.960 | 1.692 | 1.539 | 1.412 | 1.673 | 2.158 | 2.123 | 1.990 | 2.321 | 2.274 |
| 90.0 | 0.354 | 0.699 | 0.364 | 0.541 | 0.745 | 0.389 | 0.478 | 0.409 | 0.672 | 0.314 |

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 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 | 902.402 |
| 2.5 | 897.240 | 899.486 | 901.167 | 898.195 | 901.591 | 901.417 | 901.728 |
| 5.0 | 887.179 | 895.183 | 896.942 | 891.459 | 897.460 | 898.277 | 898.447 |
| 7.5 | 862.342 | 882.903 | 886.285 | 879.886 | 893.516 | 893.627 | 895.022 |
| 10.0 | 829.961 | 869.722 | 873.841 | 863.653 | 889.640 | 886.182 | 891.515 |
| 12.5 | 775.610 | 842.200 | 852.906 | 843.277 | 877.378 | 877.187 | 882.499 |
| 15.0 | 714.788 | 813.919 | 829.300 | 817.454 | 862.835 | 862.778 | 870.968 |
| 17.5 | 639.110 | 769.277 | 796.315 | 787.643 | 834.977 | 845.949 | 857.992 |
| 20.0 | 561.504 | 724.094 | 762.080 | 755.808 | 804.537 | 831.501 | 844.502 |
| 22.5 | 480.335 | 668.415 | 724.516 | 722.776 | 780.299 | 817.880 | 838.959 |

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| | | | | | | | |
|-------------|---------|---------|---------|---------|---------|---------|---------|
| 25.0 | 402.696 | 612.828 | 687.305 | 692.100 | 756.893 | 811.097 | 835.628 |
| 27.5 | 330.293 | 558.100 | 650.855 | 662.552 | 732.500 | 806.131 | 828.080 |
| 30.0 | 265.551 | 501.264 | 601.165 | 604.848 | 708.037 | 771.611 | 819.689 |
| 32.5 | 210.293 | 431.595 | 528.797 | 536.424 | 642.846 | 731.378 | 775.240 |
| 35.0 | 168.130 | 361.753 | 448.284 | 448.368 | 576.611 | 670.860 | 726.105 |
| 37.5 | 139.154 | 291.190 | 356.527 | 354.631 | 496.673 | 607.819 | 669.237 |
| 40.0 | 121.742 | 225.094 | 271.521 | 269.470 | 418.152 | 553.038 | 611.781 |
| 42.5 | 113.807 | 172.858 | 194.308 | 186.193 | 355.882 | 498.811 | 574.791 |
| 45.0 | 107.216 | 130.262 | 142.273 | 145.323 | 296.777 | 482.428 | 539.035 |
| 47.5 | 101.542 | 111.498 | 113.893 | 110.722 | 258.567 | 466.565 | 531.606 |
| 50.0 | 94.519 | 97.098 | 98.253 | 99.723 | 221.294 | 449.231 | 522.700 |
| 52.5 | 86.755 | 91.191 | 92.344 | 90.704 | 188.417 | 429.511 | 495.877 |
| 55.0 | 80.335 | 84.917 | 85.429 | 83.021 | 157.276 | 383.837 | 466.043 |
| 57.5 | 74.498 | 78.070 | 77.875 | 75.398 | 132.037 | 337.928 | 415.622 |
| 60.0 | 68.399 | 71.213 | 71.148 | 68.521 | 108.532 | 290.474 | 364.474 |
| 62.5 | 62.208 | 64.341 | 64.843 | 61.648 | 89.513 | 243.541 | 309.908 |
| 65.0 | 55.041 | 57.641 | 58.321 | 54.853 | 72.305 | 198.928 | 256.218 |
| 67.5 | 47.622 | 51.116 | 51.713 | 48.100 | 58.729 | 155.983 | 205.381 |
| 70.0 | 41.354 | 44.347 | 44.941 | 41.560 | 47.270 | 117.396 | 159.653 |
| 72.5 | 35.054 | 37.438 | 38.051 | 34.980 | 38.037 | 84.338 | 121.660 |
| 75.0 | 28.195 | 30.562 | 30.587 | 28.346 | 30.422 | 56.257 | 86.216 |
| 77.5 | 21.941 | 23.649 | 23.872 | 21.826 | 23.187 | 36.910 | 54.484 |
| 80.0 | 16.305 | 17.059 | 17.900 | 15.496 | 16.013 | 22.828 | 30.941 |
| 82.5 | 11.107 | 13.145 | 12.619 | 9.595 | 9.956 | 13.108 | 18.275 |
| 85.0 | 5.020 | 7.193 | 7.191 | 5.029 | 4.559 | 5.660 | 7.979 |
| 87.5 | 2.401 | 2.830 | 2.924 | 1.859 | 1.796 | 1.717 | 1.960 |
| 90.0 | 0.977 | 0.405 | 0.884 | 0.710 | 0.312 | 0.431 | 0.354 |

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| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|--------|
| 0-20 | 301.40 | N.A. | 23.90 |
| 0-30 | 575.24 | N.A. | 45.50 |
| 0-40 | 823.02 | N.A. | 65.10 |
| 0-60 | 1130.36 | N.A. | 89.50 |
| 0-80 | 1256.03 | N.A. | 99.40 |
| 0-90 | 1263.49 | N.A. | 100.00 |
| 10-90 | 1179.71 | N.A. | 93.40 |
| 20-40 | 521.62 | N.A. | 41.30 |
| 20-50 | 692.63 | N.A. | 54.80 |
| 40-70 | 394.51 | N.A. | 31.20 |
| 60-80 | 125.67 | N.A. | 9.90 |
| 70-80 | 38.50 | N.A. | 3.00 |
| 80-90 | 7.46 | 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 | 1263.49 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 83.78 |
| 10-20 | 217.62 |
| 20-30 | 273.83 |
| 30-40 | 247.79 |
| 40-50 | 171.01 |
| 50-60 | 136.32 |
| 60-70 | 87.17 |
| 70-80 | 38.50 |
| 80-90 | 7.46 |
| 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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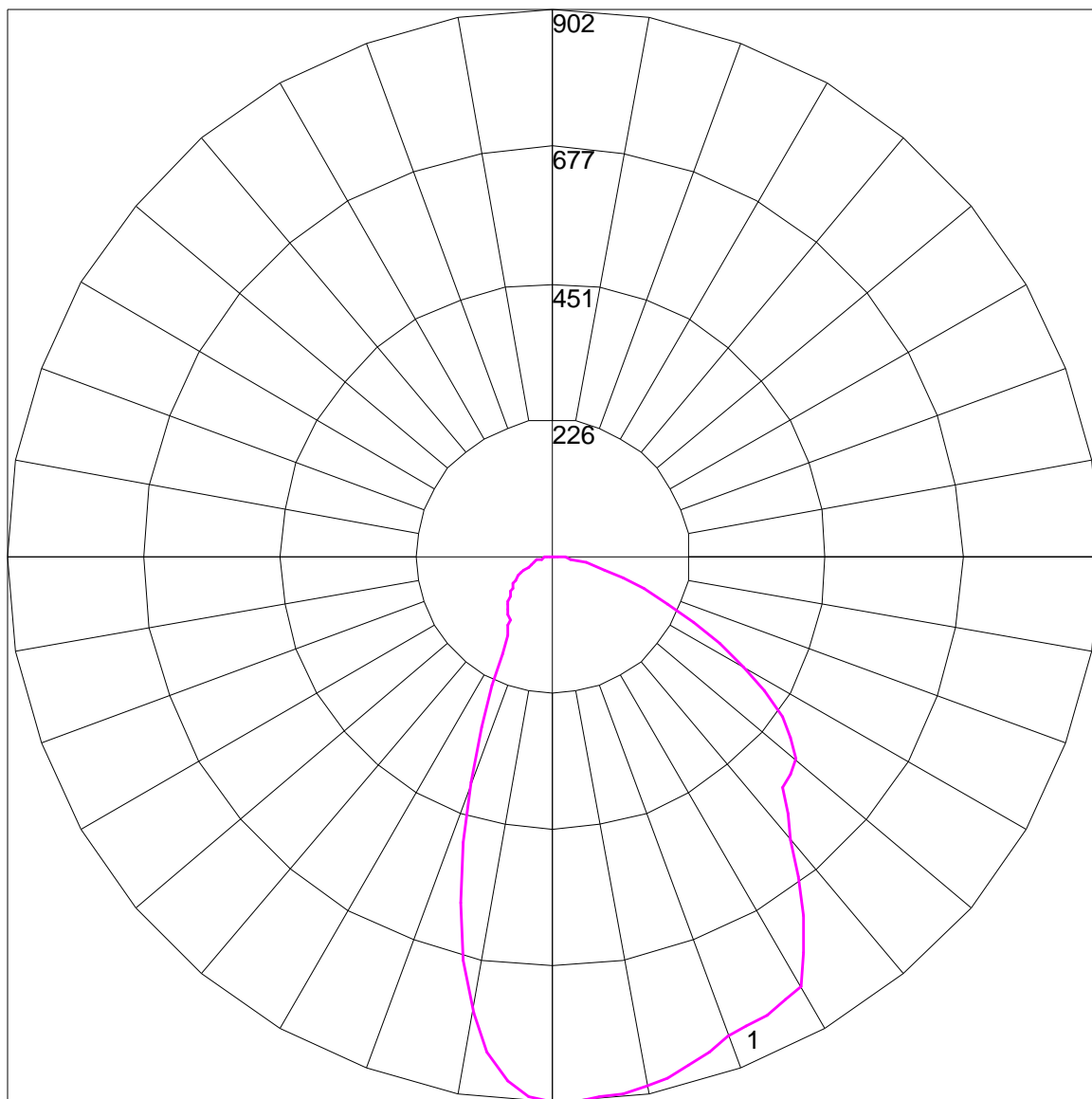
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 111 | 107 | 104 | 101 | 109 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 94 | 92 | 91 | 89 |
| 2 | 103 | 96 | 91 | 86 | 101 | 95 | 90 | 85 | 91 | 87 | 83 | 88 | 85 | 82 | 85 | 82 | 80 | 78 |
| 3 | 96 | 87 | 80 | 75 | 94 | 86 | 79 | 74 | 83 | 78 | 73 | 80 | 76 | 72 | 78 | 74 | 71 | 69 |
| 4 | 89 | 79 | 72 | 66 | 87 | 78 | 71 | 66 | 76 | 70 | 65 | 73 | 68 | 64 | 71 | 67 | 63 | 61 |
| 5 | 83 | 72 | 65 | 59 | 81 | 71 | 64 | 59 | 69 | 63 | 58 | 67 | 62 | 58 | 66 | 61 | 57 | 55 |
| 6 | 78 | 66 | 59 | 53 | 76 | 65 | 58 | 53 | 64 | 57 | 53 | 62 | 57 | 52 | 61 | 56 | 52 | 50 |
| 7 | 73 | 61 | 54 | 48 | 71 | 61 | 53 | 48 | 59 | 53 | 48 | 58 | 52 | 48 | 56 | 51 | 47 | 46 |
| 8 | 69 | 57 | 49 | 44 | 67 | 56 | 49 | 44 | 55 | 49 | 44 | 54 | 48 | 44 | 53 | 47 | 43 | 42 |
| 9 | 65 | 53 | 46 | 41 | 63 | 52 | 45 | 41 | 51 | 45 | 40 | 50 | 44 | 40 | 49 | 44 | 40 | 39 |
| 10 | 61 | 49 | 42 | 38 | 60 | 49 | 42 | 38 | 48 | 42 | 38 | 47 | 41 | 37 | 46 | 41 | 37 | 36 |

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POLAR GRAPH



Maximum Candela = 902.402 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180)