

IES INDOOR REPORT**PHOTOMETRIC FILENAME : SGX6FX-15L35KXX-XX6223FX-MWSO.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002
[TEST] CRT1612221119-008_M-15L-35K
[TESTLAB] Intertek
[ISSUE DATE] 01/19/2017
[UPDATE] 09/15/2017
[LAB-REF LUMCAT] CRT1612221119-008_M-15L-35K
[MANUFAC] Spectrum Lighting
[LUMCAT] SGX6LEDFX-15L-35K-xx-xx6223FX-MW-SO
[LUMINAIRE] Nom. 6" Diam. LED Downlight, Matte White Trim
[OTHER] Regressed Integral Solite Lens
[OTHER] Data for New Construction: SGE6LEDFX-series w/ AR6223FX-MW-SO
[OTHER] And: SGE6PZLEDFX-series w/ NF6223FX-MW-SO
[OTHER] Data for Retrofit: SGRTE6LEDFX-series w/ AR6223FX-MW-SO
[OTHER] 67.6 Degree Beam Angle
[LAMP] N/A
[LAMPCAT] N/A
[OTHER] Total Luminaire Watts is approximate
[OTHER] CCT Output Multipliers: 40K x 1.075, 30K x 1.0, 27K x 0.953
[OTHER] This Report Updated By Spectrum Lighting, scaled from 10L-27K
[_CONVERT] Photometric web converted from original test data

CHARACTERISTICS

| | |
|---------------------------------|--------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 1081 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 83 |
| Total Luminaire Watts | 13.1 |
| Ballast Factor | 1.00 |
| CIE Type | Direct |
| Spacing Criterion (0-180) | 1.06 |
| Spacing Criterion (90-270) | 1.04 |
| Spacing Criterion (Diagonal) | 1.00 |
| Basic Luminous Shape | Circular |
| Luminous Length (0-180) | 0.50 ft (Diameter) |
| Luminous Width (90-270) | 0.50 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 | 9357 | 9419 | 9097 |
| 55 | 5203 | 5218 | 5066 |
| 65 | 3831 | 3872 | 3769 |
| 75 | 2874 | 2908 | 2807 |
| 85 | 703 | 904 | 603 |

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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 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 |
| 2.5 | 898.499 | 897.860 | 897.381 | 898.180 | 898.499 | 898.180 | 897.381 | 897.860 | 898.499 | 897.860 |
| 5.0 | 898.339 | 897.381 | 898.180 | 898.180 | 897.540 | 898.180 | 898.180 | 897.381 | 898.339 | 897.381 |
| 7.5 | 894.504 | 892.907 | 894.664 | 894.025 | 893.546 | 894.025 | 894.664 | 892.907 | 894.504 | 892.907 |
| 10.0 | 884.757 | 885.077 | 885.396 | 884.917 | 883.958 | 884.917 | 885.396 | 885.077 | 884.757 | 885.077 |
| 12.5 | 869.098 | 869.417 | 870.057 | 868.299 | 867.500 | 868.299 | 870.057 | 869.417 | 869.098 | 869.417 |
| 15.0 | 847.207 | 846.887 | 845.928 | 844.490 | 842.732 | 844.490 | 845.928 | 846.887 | 847.207 | 846.887 |
| 17.5 | 817.006 | 817.486 | 815.249 | 813.331 | 811.573 | 813.331 | 815.249 | 817.486 | 817.006 | 817.486 |
| 20.0 | 780.894 | 781.852 | 779.615 | 776.100 | 775.141 | 776.100 | 779.615 | 781.852 | 780.894 | 781.852 |
| 22.5 | 740.627 | 742.384 | 739.348 | 736.792 | 735.513 | 736.792 | 739.348 | 742.384 | 740.627 | 742.384 |
| 25.0 | 695.087 | 696.525 | 695.406 | 690.772 | 690.453 | 690.772 | 695.406 | 696.525 | 695.087 | 696.525 |
| 27.5 | 643.634 | 644.433 | 642.196 | 637.243 | 638.041 | 637.243 | 642.196 | 644.433 | 643.634 | 644.433 |
| 30.0 | 584.352 | 581.955 | 581.955 | 569.332 | 573.646 | 569.332 | 581.955 | 581.955 | 584.352 | 581.955 |
| 32.5 | 498.385 | 499.663 | 498.864 | 483.525 | 487.040 | 483.525 | 498.864 | 499.663 | 498.385 | 499.663 |
| 35.0 | 404.269 | 407.624 | 406.346 | 390.687 | 395.800 | 390.687 | 406.346 | 407.624 | 404.269 | 407.624 |
| 37.5 | 310.312 | 314.467 | 315.585 | 297.689 | 301.204 | 297.689 | 315.585 | 314.467 | 310.312 | 314.467 |
| 40.0 | 228.500 | 230.897 | 230.897 | 214.438 | 220.031 | 214.438 | 230.897 | 230.897 | 228.500 | 230.897 |
| 42.5 | 162.666 | 164.903 | 164.584 | 153.558 | 157.553 | 153.558 | 164.584 | 164.903 | 162.666 | 164.903 |
| 45.0 | 120.801 | 122.239 | 121.600 | 114.729 | 117.446 | 114.729 | 121.600 | 122.239 | 120.801 | 122.239 |
| 47.5 | 94.116 | 94.755 | 94.436 | 90.281 | 91.879 | 90.281 | 94.436 | 94.755 | 94.116 | 94.755 |
| 50.0 | 76.539 | 77.019 | 76.859 | 74.302 | 74.782 | 74.302 | 76.859 | 77.019 | 76.539 | 77.019 |
| 52.5 | 64.555 | 65.035 | 64.875 | 62.797 | 62.957 | 62.797 | 64.875 | 65.035 | 64.555 | 65.035 |
| 55.0 | 54.488 | 54.808 | 54.648 | 52.890 | 53.050 | 52.890 | 54.648 | 54.808 | 54.488 | 54.808 |
| 57.5 | 45.860 | 46.179 | 46.179 | 45.061 | 44.901 | 45.061 | 46.179 | 46.179 | 45.860 | 46.179 |
| 60.0 | 39.308 | 39.468 | 39.468 | 38.989 | 38.829 | 38.989 | 39.468 | 39.468 | 39.308 | 39.468 |
| 62.5 | 34.195 | 34.515 | 34.515 | 33.875 | 33.716 | 33.875 | 34.515 | 34.515 | 34.195 | 34.515 |
| 65.0 | 29.561 | 29.721 | 29.881 | 29.082 | 29.082 | 29.082 | 29.881 | 29.721 | 29.561 | 29.721 |
| 67.5 | 25.087 | 25.407 | 25.407 | 24.767 | 24.608 | 24.767 | 25.407 | 25.407 | 25.087 | 25.407 |
| 70.0 | 21.092 | 21.252 | 21.412 | 20.773 | 20.613 | 20.773 | 21.412 | 21.252 | 21.092 | 21.252 |
| 72.5 | 17.257 | 17.417 | 17.417 | 17.098 | 16.778 | 17.098 | 17.417 | 17.417 | 17.257 | 17.417 |
| 75.0 | 13.582 | 13.582 | 13.742 | 13.422 | 13.263 | 13.422 | 13.742 | 13.582 | 13.582 | 13.582 |
| 77.5 | 10.227 | 10.227 | 10.386 | 10.067 | 9.907 | 10.067 | 10.386 | 10.227 | 10.227 | 10.227 |
| 80.0 | 6.871 | 7.031 | 7.031 | 6.871 | 6.711 | 6.871 | 7.031 | 7.031 | 6.871 | 7.031 |
| 82.5 | 3.835 | 3.835 | 4.155 | 3.835 | 3.675 | 3.835 | 4.155 | 3.835 | 3.835 | 3.835 |
| 85.0 | 1.119 | 1.119 | 1.438 | 1.119 | 0.959 | 1.119 | 1.438 | 1.119 | 1.119 | 1.119 |
| 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 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 | 897.381 |
| 2.5 | 897.381 | 898.180 | 898.499 | 898.180 | 897.381 | 897.860 | 898.499 |
| 5.0 | 898.180 | 898.180 | 897.540 | 898.180 | 898.180 | 897.381 | 898.339 |
| 7.5 | 894.664 | 894.025 | 893.546 | 894.025 | 894.664 | 892.907 | 894.504 |
| 10.0 | 885.396 | 884.917 | 883.958 | 884.917 | 885.396 | 885.077 | 884.757 |
| 12.5 | 870.057 | 868.299 | 867.500 | 868.299 | 870.057 | 869.417 | 869.098 |
| 15.0 | 845.928 | 844.490 | 842.732 | 844.490 | 845.928 | 846.887 | 847.207 |
| 17.5 | 815.249 | 813.331 | 811.573 | 813.331 | 815.249 | 817.486 | 817.006 |
| 20.0 | 779.615 | 776.100 | 775.141 | 776.100 | 779.615 | 781.852 | 780.894 |
| 22.5 | 739.348 | 736.792 | 735.513 | 736.792 | 739.348 | 742.384 | 740.627 |
| 25.0 | 695.406 | 690.772 | 690.453 | 690.772 | 695.406 | 696.525 | 695.087 |
| 27.5 | 642.196 | 637.243 | 638.041 | 637.243 | 642.196 | 644.433 | 643.634 |
| 30.0 | 581.955 | 569.332 | 573.646 | 569.332 | 581.955 | 581.955 | 584.352 |

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CANDELA TABULATION - (Cont.)

| | | | | | | | |
|-------------|---------|---------|---------|---------|---------|---------|---------|
| 32.5 | 498.864 | 483.525 | 487.040 | 483.525 | 498.864 | 499.663 | 498.385 |
| 35.0 | 406.346 | 390.687 | 395.800 | 390.687 | 406.346 | 407.624 | 404.269 |
| 37.5 | 315.585 | 297.689 | 301.204 | 297.689 | 315.585 | 314.467 | 310.312 |
| 40.0 | 230.897 | 214.438 | 220.031 | 214.438 | 230.897 | 230.897 | 228.500 |
| 42.5 | 164.584 | 153.558 | 157.553 | 153.558 | 164.584 | 164.903 | 162.666 |
| 45.0 | 121.600 | 114.729 | 117.446 | 114.729 | 121.600 | 122.239 | 120.801 |
| 47.5 | 94.436 | 90.281 | 91.879 | 90.281 | 94.436 | 94.755 | 94.116 |
| 50.0 | 76.859 | 74.302 | 74.782 | 74.302 | 76.859 | 77.019 | 76.539 |
| 52.5 | 64.875 | 62.797 | 62.957 | 62.797 | 64.875 | 65.035 | 64.555 |
| 55.0 | 54.648 | 52.890 | 53.050 | 52.890 | 54.648 | 54.808 | 54.488 |
| 57.5 | 46.179 | 45.061 | 44.901 | 45.061 | 46.179 | 46.179 | 45.860 |
| 60.0 | 39.468 | 38.989 | 38.829 | 38.989 | 39.468 | 39.468 | 39.308 |
| 62.5 | 34.515 | 33.875 | 33.716 | 33.875 | 34.515 | 34.515 | 34.195 |
| 65.0 | 29.881 | 29.082 | 29.082 | 29.082 | 29.881 | 29.721 | 29.561 |
| 67.5 | 25.407 | 24.767 | 24.608 | 24.767 | 25.407 | 25.407 | 25.087 |
| 70.0 | 21.412 | 20.773 | 20.613 | 20.773 | 21.412 | 21.252 | 21.092 |
| 72.5 | 17.417 | 17.098 | 16.778 | 17.098 | 17.417 | 17.417 | 17.257 |
| 75.0 | 13.742 | 13.422 | 13.263 | 13.422 | 13.742 | 13.582 | 13.582 |
| 77.5 | 10.386 | 10.067 | 9.907 | 10.067 | 10.386 | 10.227 | 10.227 |
| 80.0 | 7.031 | 6.871 | 6.711 | 6.871 | 7.031 | 7.031 | 6.871 |
| 82.5 | 4.155 | 3.835 | 3.675 | 3.835 | 4.155 | 3.835 | 3.835 |
| 85.0 | 1.438 | 1.119 | 0.959 | 1.119 | 1.438 | 1.119 | 1.119 |
| 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 | 321.98 | N.A. | 29.80 |
| 0-30 | 637.82 | N.A. | 59.00 |
| 0-40 | 885.45 | N.A. | 81.90 |
| 0-60 | 1034.71 | N.A. | 95.70 |
| 0-80 | 1078.6 | N.A. | 99.80 |
| 0-90 | 1080.92 | N.A. | 100.00 |
| 10-90 | 995.62 | N.A. | 92.10 |
| 20-40 | 563.47 | N.A. | 52.10 |
| 20-50 | 663.37 | N.A. | 61.40 |
| 40-70 | 178.67 | N.A. | 16.50 |
| 60-80 | 43.89 | N.A. | 4.10 |
| 70-80 | 14.48 | N.A. | 1.30 |
| 80-90 | 2.32 | N.A. | 0.20 |
| 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 | 1080.92 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|--------|
| 0-10 | 85.30 |
| 10-20 | 236.68 |
| 20-30 | 315.84 |
| 30-40 | 247.63 |
| 40-50 | 99.90 |
| 50-60 | 49.35 |
| 60-70 | 29.41 |
| 70-80 | 14.48 |
| 80-90 | 2.32 |
| 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 |

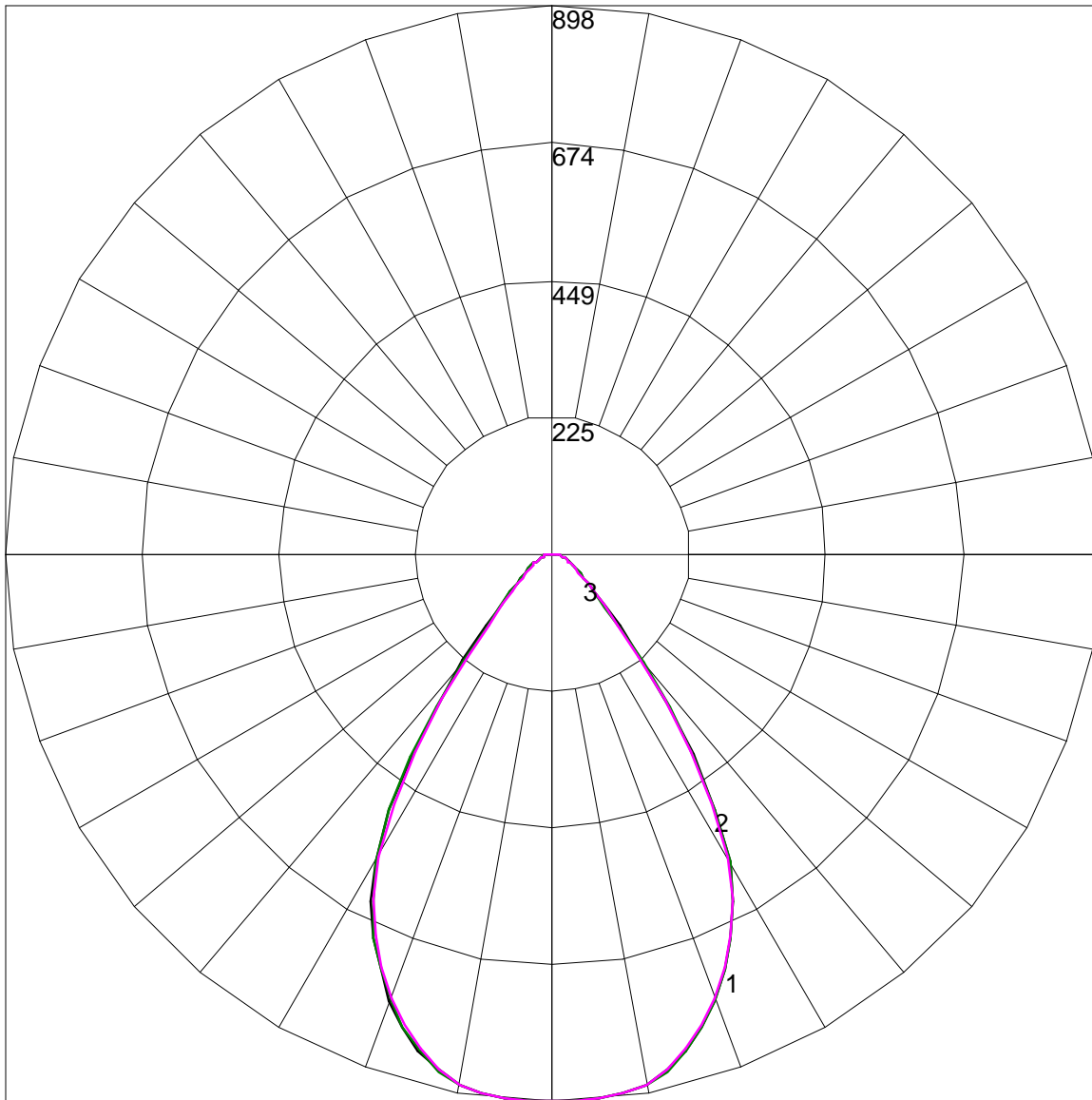
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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 | 105 | 102 | 103 | 101 | 99 | 99 | 98 | 96 | 96 | 95 | 93 | 91 |
| 2 | 106 | 100 | 96 | 92 | 104 | 98 | 94 | 91 | 95 | 92 | 89 | 92 | 89 | 87 | 89 | 87 | 85 | 83 |
| 3 | 100 | 92 | 86 | 82 | 97 | 91 | 86 | 81 | 88 | 84 | 80 | 86 | 82 | 79 | 83 | 80 | 77 | 76 |
| 4 | 94 | 85 | 79 | 74 | 92 | 84 | 78 | 74 | 82 | 77 | 73 | 80 | 75 | 72 | 78 | 74 | 71 | 69 |
| 5 | 88 | 79 | 72 | 67 | 87 | 78 | 72 | 67 | 76 | 71 | 66 | 74 | 69 | 66 | 73 | 68 | 65 | 64 |
| 6 | 83 | 73 | 67 | 62 | 82 | 72 | 66 | 61 | 71 | 65 | 61 | 69 | 64 | 61 | 68 | 64 | 60 | 59 |
| 7 | 79 | 68 | 62 | 57 | 77 | 68 | 61 | 57 | 66 | 60 | 56 | 65 | 60 | 56 | 64 | 59 | 56 | 54 |
| 8 | 74 | 64 | 57 | 53 | 73 | 63 | 57 | 52 | 62 | 56 | 52 | 61 | 56 | 52 | 60 | 55 | 52 | 50 |
| 9 | 70 | 60 | 53 | 49 | 69 | 59 | 53 | 49 | 58 | 53 | 49 | 57 | 52 | 48 | 56 | 52 | 48 | 47 |
| 10 | 67 | 56 | 50 | 46 | 66 | 56 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 45 | 53 | 48 | 45 | 44 |

POLAR GRAPH



Maximum Candela = 898.499 Located At Horizontal Angle = 0, Vertical Angle = 2.5

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

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

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