

Indoor Distribution Test Report

Spectrum Lighting Inc.

994 Jefferson Street
Fall River, MA 02721
+1.508.678.2303

Spectrum Lighting Photometric Lab

Luminaire

SLO3IND2 11L 35HK LW xx xx MW
Specline Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl

Test Number

SP-01371_1

Test Date

6/3/2022

The results contained in this report pertain only to this IES file.

Summary of Results

Power

| | |
|-------------|------|
| Input Watts | 34 W |
|-------------|------|

Lumen Output

| | |
|---------------|------------|
| Output Lumens | 2802 |
| Efficacy | 82.41 lm/W |

Luminous Dimensions

| | |
|-----------------|------|
| 0° - 180° Size | 0.15 |
| 90° - 270° Size | 4 |
| Height | 0 |

Spacing Criterion

| | |
|---------------------------|------|
| Two luminaires, plane 0° | 1.88 |
| Two luminaires, plane 90° | 1.21 |
| Four luminaires | 1.69 |

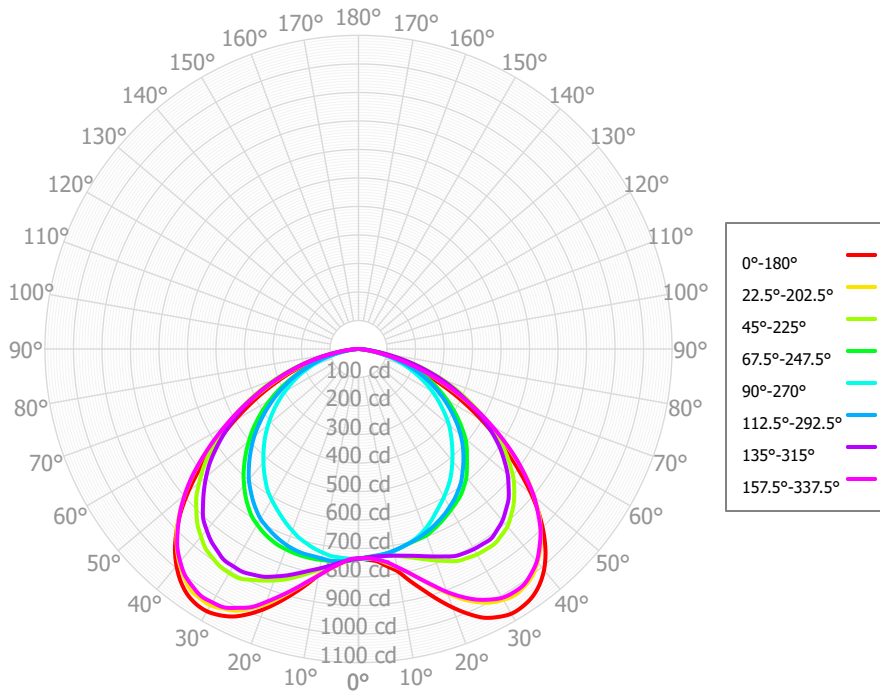
Full Beam Angle

| | |
|------------|------|
| 0° - 180° | 117° |
| 90° - 270° | 76° |

IES File Header Contents

| Keyword | Value |
|-----------|---|
| TEST | SP-01371_1 |
| TESTLAB | Spectrum Lighting Photometric Lab, VLS-245-981 |
| MANUFAC | Spectrum Lighting |
| TESTDATE | 6/3/2022 |
| ISSUEDATE | 11/2/2022 |
| LUMCAT | SLO3IND2 11L 35HK LW xx xx MW |
| LUMINAIRE | SpecLine Linear Pendant, 1.8" aperture x 4' Long, Matte White Refl |
| OTHER | Wide Extruded Acrylic Lens, Batwing Distribution |
| OTHER | Data for 4' IND fixture, or 4' module for continuous ROW |
| OTHER | 76 Degree x 118 Degree Beam Angle |
| LAMP | N/A, Min. 90 CRI |
| LAMPCAT | N/A |
| OTHER | Reference project SL473 |
| OTHER | 11L designation for Spectrum linear product indicates 700 Source Lm/Ft. |
| OTHER | CCT Output Multipliers: 40HK x 1.01, 30HK x 0.98, 27HK x 0.95 |
| OTHER | Total Luminaire Watts is approximate |
| OTHER | This report prepared by Spectrum Lighting |

Candela Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % Fixture | Zone | Lumens | % Fixture |
|-----------------|---------|-----------|-------------------|---------|-----------|
| 0.00° - 10.00° | 72.69 | 2.59% | 90.00° - 100.00° | 0.00 | 0.00% |
| 10.00° - 20.00° | 225.18 | 8.04% | 100.00° - 110.00° | 0.00 | 0.00% |
| 20.00° - 30.00° | 389.21 | 13.89% | 100.00° - 120.00° | 0.00 | 0.00% |
| 30.00° - 40.00° | 517.16 | 18.46% | 120.00° - 130.00° | 0.00 | 0.00% |
| 40.00° - 50.00° | 557.92 | 19.91% | 130.00° - 140.00° | 0.00 | 0.00% |
| 50.00° - 60.00° | 493.10 | 17.60% | 140.00° - 150.00° | 0.00 | 0.00% |
| 60.00° - 70.00° | 347.81 | 12.41% | 150.00° - 160.00° | 0.00 | 0.00% |
| 70.00° - 80.00° | 169.13 | 6.04% | 160.00° - 170.00° | 0.00 | 0.00% |
| 80.00° - 90.00° | 29.78 | 1.06% | 170.00° - 180.00° | 0.00 | 0.00% |
| 0.00° - 90.00° | 2801.98 | 100.00% | 0.00° - 180.00° | 2801.98 | 100.00% |

Candela Distribution

| | 0.00° | 22.50° | 45.00° | 67.50° | 90.00° | 112.50° | 135.00° | 157.50° | 180.00° | 202.50° | 225.00° | 247.50° | 270.00° | 292.50° | 315.00° | 337.50° | 360.00° |
|--------|---------|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.00° | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 | 735.18 |
| 2.50° | 740.32 | 735.02 | 730.23 | 732.08 | 737.53 | 742.20 | 741.76 | 738.98 | 743.24 | 743.04 | 743.51 | 742.91 | 736.34 | 731.11 | 731.72 | 734.60 | 740.32 |
| 5.00° | 747.96 | 741.77 | 728.84 | 729.10 | 735.43 | 747.69 | 752.78 | 756.86 | 754.23 | 757.99 | 754.30 | 747.87 | 734.59 | 727.38 | 730.68 | 741.84 | 747.96 |
| 7.50° | 768.99 | 757.98 | 731.50 | 724.24 | 730.52 | 749.50 | 766.95 | 778.40 | 778.53 | 780.22 | 767.28 | 750.03 | 732.64 | 724.36 | 732.29 | 754.00 | 768.99 |
| 10.00° | 792.07 | 777.52 | 736.25 | 718.73 | 720.32 | 746.01 | 781.74 | 807.22 | 805.58 | 803.74 | 784.53 | 751.68 | 725.27 | 718.00 | 736.33 | 776.24 | 792.07 |
| 12.50° | 833.22 | 803.44 | 746.39 | 711.59 | 710.87 | 743.87 | 796.84 | 837.21 | 847.52 | 838.59 | 805.59 | 752.73 | 716.89 | 710.70 | 742.92 | 802.47 | 833.22 |
| 15.00° | 875.08 | 834.61 | 758.61 | 704.08 | 702.50 | 743.23 | 814.40 | 872.20 | 889.48 | 874.59 | 826.41 | 752.43 | 705.77 | 703.40 | 751.31 | 834.81 | 875.08 |
| 17.50° | 920.53 | 873.39 | 773.60 | 699.92 | 690.98 | 739.56 | 832.83 | 907.58 | 931.51 | 914.15 | 847.08 | 750.84 | 694.37 | 696.09 | 762.30 | 869.52 | 920.53 |
| 20.00° | 964.92 | 911.62 | 789.33 | 696.23 | 675.96 | 733.25 | 849.22 | 944.23 | 971.57 | 953.45 | 864.17 | 747.59 | 678.47 | 686.69 | 774.74 | 907.08 | 964.92 |
| 22.50° | 1005.71 | 949.23 | 804.93 | 685.83 | 657.86 | 724.26 | 865.08 | 980.11 | 1006.60 | 984.22 | 879.43 | 743.11 | 662.39 | 677.08 | 787.94 | 940.35 | 1005.71 |
| 25.00° | 1040.35 | 979.31 | 820.51 | 674.97 | 637.13 | 713.48 | 873.76 | 1002.09 | 1035.58 | 1013.33 | 893.48 | 734.88 | 644.79 | 665.42 | 801.45 | 969.66 | 1040.35 |
| 27.50° | 1060.14 | 1002.79 | 826.79 | 662.64 | 617.88 | 701.02 | 881.29 | 1021.95 | 1053.17 | 1027.24 | 907.06 | 724.53 | 627.23 | 653.62 | 807.10 | 991.49 | 1060.14 |
| 30.00° | 1072.44 | 1016.25 | 832.17 | 650.33 | 599.61 | 687.71 | 879.93 | 1026.27 | 1062.85 | 1038.54 | 907.45 | 711.11 | 610.02 | 639.66 | 810.50 | 1008.05 | 1072.44 |
| 32.50° | 1071.35 | 1023.01 | 833.17 | 638.19 | 580.08 | 668.34 | 877.88 | 1027.71 | 1060.94 | 1036.61 | 904.27 | 696.37 | 591.72 | 625.42 | 811.39 | 1012.52 | 1071.35 |
| 35.00° | 1062.50 | 1016.30 | 833.61 | 625.35 | 559.91 | 646.68 | 863.89 | 1015.95 | 1048.98 | 1029.64 | 893.66 | 674.73 | 567.99 | 608.52 | 811.79 | 1010.34 | 1062.50 |
| 37.50° | 1042.85 | 1002.84 | 823.94 | 607.73 | 536.67 | 622.89 | 849.41 | 1000.45 | 1025.78 | 1005.92 | 881.76 | 650.96 | 543.94 | 590.62 | 799.56 | 994.60 | 1042.85 |
| 40.00° | 1012.71 | 976.70 | 813.09 | 588.56 | 512.29 | 598.54 | 828.87 | 973.41 | 993.50 | 978.72 | 859.47 | 624.31 | 518.77 | 567.61 | 785.96 | 973.35 | 1012.71 |
| 42.50° | 971.37 | 945.76 | 792.04 | 562.90 | 487.76 | 569.58 | 806.58 | 941.06 | 953.41 | 943.19 | 836.18 | 597.06 | 493.47 | 544.38 | 765.52 | 940.26 | 971.37 |
| 45.00° | 920.05 | 903.98 | 769.73 | 537.98 | 463.19 | 539.85 | 771.37 | 896.93 | 902.82 | 902.07 | 804.45 | 566.05 | 467.83 | 520.43 | 744.59 | 903.77 | 920.05 |
| 47.50° | 860.55 | 859.34 | 741.26 | 515.17 | 438.86 | 509.02 | 735.71 | 849.33 | 845.14 | 850.87 | 772.06 | 534.55 | 441.44 | 495.34 | 714.21 | 854.88 | 860.55 |
| 50.00° | 791.95 | 803.47 | 710.20 | 489.66 | 414.57 | 478.10 | 698.00 | 795.81 | 779.91 | 795.65 | 729.53 | 501.84 | 413.71 | 467.44 | 683.15 | 803.56 | 791.95 |
| 52.50° | 717.51 | 745.72 | 670.72 | 458.39 | 386.05 | 443.45 | 658.00 | 736.93 | 710.84 | 734.96 | 686.38 | 469.00 | 385.73 | 438.12 | 645.49 | 741.61 | 717.51 |
| 55.00° | 643.61 | 675.41 | 628.65 | 426.49 | 357.17 | 408.75 | 610.90 | 671.08 | 639.76 | 670.30 | 637.81 | 432.81 | 357.39 | 406.23 | 606.65 | 678.51 | 643.61 |
| 57.50° | 569.96 | 603.96 | 580.34 | 393.60 | 328.94 | 374.14 | 563.10 | 605.46 | 567.94 | 601.44 | 587.97 | 396.45 | 328.23 | 374.23 | 561.62 | 609.90 | 569.96 |
| 60.00° | 499.60 | 535.76 | 529.98 | 360.01 | 300.63 | 339.44 | 513.74 | 540.06 | 502.56 | 534.91 | 531.91 | 358.04 | 298.20 | 342.10 | 514.97 | 541.14 | 499.60 |
| 62.50° | 430.39 | 467.63 | 476.00 | 325.57 | 270.50 | 304.03 | 462.96 | 476.59 | 438.92 | 470.30 | 476.21 | 319.20 | 268.72 | 309.50 | 462.62 | 472.93 | 430.39 |
| 65.00° | 364.32 | 399.92 | 422.53 | 290.46 | 240.32 | 268.37 | 409.78 | 414.63 | 379.82 | 407.41 | 421.70 | 277.79 | 239.71 | 276.41 | 410.45 | 404.81 | 364.32 |
| 67.50° | 299.03 | 332.60 | 369.75 | 254.70 | 209.67 | 231.56 | 355.29 | 354.86 | 321.49 | 345.59 | 366.64 | 237.03 | 209.44 | 241.73 | 358.73 | 337.49 | 299.03 |
| 70.00° | 241.95 | 268.47 | 314.68 | 218.43 | 179.08 | 195.80 | 299.13 | 296.40 | 270.18 | 288.44 | 310.26 | 198.71 | 178.37 | 205.72 | 305.43 | 271.28 | 241.95 |
| 72.50° | 186.14 | 206.34 | 257.20 | 181.77 | 148.80 | 163.40 | 245.92 | 242.03 | 219.48 | 233.49 | 254.32 | 160.96 | 146.08 | 169.77 | 249.18 | 210.93 | 186.14 |
| 75.00° | 138.46 | 153.73 | 199.03 | 147.45 | 118.46 | 130.47 | 195.66 | 189.48 | 170.65 | 180.92 | 199.16 | 124.77 | 113.21 | 133.85 | 193.68 | 153.13 | 138.46 |
| 77.50° | 91.37 | 103.97 | 140.30 | 114.44 | 87.93 | 96.33 | 147.12 | 139.29 | 122.23 | 129.19 | 147.26 | 90.49 | 83.95 | 100.96 | 139.23 | 104.43 | 91.37 |
| 80.00° | 59.25 | 63.22 | 91.25 | 81.51 | 59.71 | 64.64 | 99.93 | 89.86 | 81.67 | 86.11 | 99.75 | 59.95 | 55.96 | 69.55 | 90.36 | 61.26 | 59.25 |
| 82.50° | 28.31 | 29.99 | 48.19 | 48.61 | 36.79 | 37.24 | 59.97 | 55.06 | 43.36 | 45.13 | 59.64 | 34.30 | 34.09 | 42.53 | 47.63 | 31.96 | 28.31 |
| 85.00° | 14.44 | 14.44 | 23.19 | 26.95 | 18.93 | 17.57 | 24.32 | 23.49 | 23.06 | 24.24 | 27.25 | 15.91 | 13.76 | 17.08 | 21.35 | 11.13 | 14.44 |
| 87.50° | 2.30 | 4.18 | 6.81 | 8.72 | 9.70 | 8.11 | 9.76 | 12.65 | 5.90 | 6.35 | 9.82 | 5.03 | 7.15 | 8.19 | 8.93 | 6.00 | 2.30 |
| 90.00° | 2.43 | 3.13 | 2.32 | 4.09 | 4.03 | 3.05 | 4.55 | 4.52 | 4.05 | 3.53 | 4.54 | 2.93 | 2.67 | 3.33 | 3.40 | 2.84 | 2.43 |

Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

| | | | | | | | | | | | | | | | | | | |
|------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RCR | pfc | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 20% | 0% |
| | pcc | 80% | 80% | 80% | 80% | 70% | 70% | 70% | 70% | 50% | 50% | 50% | 30% | 30% | 30% | 10% | 10% | 0% |
| | pw | 70% | 50% | 30% | 10% | 70% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 10% | 50% | 30% | 30% |
| | 0 | 3336 | 3336 | 3336 | 3336 | 3258 | 3258 | 3258 | 3258 | 3113 | 3113 | 3113 | 2981 | 2981 | 2981 | 2859 | 2859 | 2802 |
| | 1 | 3054 | 2923 | 2806 | 2700 | 2978 | 2860 | 2753 | 2656 | 2741 | 2653 | 2572 | 2632 | 2560 | 2493 | 2531 | 2473 | 2421 |
| | 2 | 2774 | 2543 | 2353 | 2193 | 2700 | 2490 | 2315 | 2167 | 2391 | 2243 | 2116 | 2299 | 2176 | 2068 | 2214 | 2112 | 2021 |
| | 3 | 2523 | 2226 | 1996 | 1813 | 2453 | 2181 | 1968 | 1796 | 2097 | 1914 | 1764 | 2020 | 1864 | 1733 | 1948 | 1816 | 1703 |
| | 4 | 2303 | 1963 | 1714 | 1524 | 2238 | 1926 | 1693 | 1513 | 1855 | 1652 | 1492 | 1789 | 1614 | 1471 | 1728 | 1576 | 1451 |
| | 5 | 2111 | 1745 | 1490 | 1301 | 2051 | 1714 | 1474 | 1294 | 1654 | 1442 | 1279 | 1598 | 1411 | 1265 | 1546 | 1382 | 1251 |
| | 6 | 1943 | 1564 | 1309 | 1126 | 1889 | 1537 | 1296 | 1121 | 1486 | 1271 | 1110 | 1438 | 1246 | 1100 | 1393 | 1223 | 1090 |
| | 7 | 1797 | 1411 | 1161 | 985 | 1747 | 1388 | 1150 | 982 | 1344 | 1130 | 974 | 1303 | 1110 | 967 | 1265 | 1092 | 959 |
| | 8 | 1667 | 1281 | 1038 | 871 | 1623 | 1262 | 1030 | 868 | 1224 | 1013 | 863 | 1189 | 997 | 857 | 1156 | 982 | 852 |
| | 9 | 1554 | 1170 | 936 | 777 | 1513 | 1153 | 929 | 775 | 1121 | 915 | 771 | 1091 | 902 | 766 | 1062 | 889 | 762 |
| | 10 | 1453 | 1075 | 849 | 699 | 1416 | 1060 | 843 | 697 | 1032 | 832 | 694 | 1006 | 821 | 690 | 981 | 810 | 687 |

Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft | 24.3 fc | 18.1 ft |
| 6.5 ft | 17.4 fc | 21.4 ft |
| 7.5 ft | 13.1 fc | 24.7 ft |
| 8.0 ft | 11.5 fc | 26.3 ft |
| 10.0 ft | 7.4 fc | 32.9 ft |
| 12.0 ft | 5.1 fc | 39.5 ft |
| 14.0 ft | 3.8 fc | 46.1 ft |
| 16.0 ft | 2.9 fc | 52.6 ft |
| 20.0 ft | 1.8 fc | 65.8 ft |
| 24.0 ft | 1.3 fc | 79.0 ft |
| 28.0 ft | 0.9 fc | 92.1 ft |

Average Luminaire Luminance [cd/m²]

| | 0.00° | 45.00° | 90.00° |
|---------------|-------|--------|--------|
| 0.00° | 13189 | 13189 | 13189 |
| 45.00° | 23342 | 19529 | 11752 |
| 55.00° | 20130 | 19662 | 11171 |
| 65.00° | 15465 | 17936 | 10201 |
| 75.00° | 9597 | 13795 | 8211 |
| 85.00° | 2972 | 4773 | 3897 |

UGR CIE 190:2010

| Ceiling reflectance | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
|---------------------|-----|------------------|------|------|------|------|----------------|------|------|------|------|
| Wall reflectance | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Plane reflectance | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| 2H | 2H | 23.5 | 25.1 | 23.8 | 25.4 | 25.7 | 20.2 | 21.8 | 20.6 | 22.2 | 22.5 |
| | 3H | 24.6 | 26.1 | 25.0 | 26.5 | 26.8 | 21.7 | 23.2 | 22.1 | 23.5 | 23.9 |
| | 4H | 24.9 | 26.4 | 25.3 | 26.7 | 27.1 | 22.2 | 23.6 | 22.6 | 23.9 | 24.3 |
| | 6H | 25.1 | 26.4 | 25.5 | 26.7 | 27.1 | 22.5 | 23.8 | 22.9 | 24.1 | 24.5 |
| | 8H | 25.1 | 26.3 | 25.5 | 26.7 | 27.1 | 22.5 | 23.8 | 22.9 | 24.2 | 24.6 |
| | 12H | 25.1 | 26.2 | 25.5 | 26.6 | 27.1 | 22.5 | 23.7 | 23.0 | 24.1 | 24.5 |
| 4H | 2H | 24.0 | 25.4 | 24.4 | 25.8 | 26.1 | 21.7 | 23.1 | 22.1 | 23.4 | 23.8 |
| | 3H | 25.4 | 26.6 | 25.8 | 27.0 | 27.4 | 23.2 | 24.4 | 23.6 | 24.8 | 25.2 |
| | 4H | 25.8 | 26.9 | 26.2 | 27.3 | 27.7 | 23.7 | 24.8 | 24.2 | 25.2 | 25.6 |
| | 6H | 26.0 | 26.9 | 26.4 | 27.4 | 27.8 | 24.1 | 25.0 | 24.5 | 25.4 | 25.9 |
| | 8H | 26.0 | 26.9 | 26.5 | 27.3 | 27.8 | 24.1 | 25.0 | 24.6 | 25.4 | 25.9 |
| | 12H | 26.0 | 26.8 | 26.5 | 27.2 | 27.7 | 24.1 | 24.9 | 24.6 | 25.4 | 25.9 |
| 8H | 4H | 26.0 | 26.9 | 26.5 | 27.3 | 27.8 | 24.2 | 25.1 | 24.7 | 25.6 | 26.0 |
| | 6H | 26.3 | 27.0 | 26.8 | 27.5 | 27.9 | 24.6 | 25.3 | 25.1 | 25.8 | 26.3 |
| | 8H | 26.3 | 26.9 | 26.8 | 27.4 | 27.9 | 24.7 | 25.4 | 25.2 | 25.9 | 26.3 |
| | 12H | 26.3 | 26.9 | 26.8 | 27.3 | 27.9 | 24.8 | 25.3 | 25.3 | 25.8 | 26.4 |
| 12H | 4H | 26.0 | 26.8 | 26.5 | 27.3 | 27.8 | 24.3 | 25.1 | 24.8 | 25.5 | 26.0 |
| | 6H | 26.3 | 26.9 | 26.8 | 27.4 | 27.9 | 24.7 | 25.4 | 25.2 | 25.8 | 26.3 |
| | 8H | 26.3 | 26.9 | 26.8 | 27.4 | 27.9 | 24.8 | 25.4 | 25.3 | 25.9 | 26.4 |

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0