

## Indoor Distribution Test Report

### Spectrum Lighting Inc.

994 Jefferson Street  
Fall River, MA 02721  
+1.508.678.2303

### Spectrum Lighting Photometric Lab

**Luminaire**

SN24 30L 30HK xx xx xx MWI  
24" x 23.5" Spin Pendant 30L 30HK MWI

**Test Number**

SP-01611\_2

**Test Date**

11/6/2023

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

### Summary of Results

#### Power

|             |        |
|-------------|--------|
| Input Watts | 30.7 W |
|-------------|--------|

#### Lumen Output

|               |             |
|---------------|-------------|
| Output Lumens | 3105        |
| Efficacy      | 101.15 lm/W |

#### Luminous Dimensions

|                 |    |
|-----------------|----|
| 0° - 180° Size  | -2 |
| 90° - 270° Size | -2 |
| Height          | 0  |

#### Spacing Criterion

|                           |      |
|---------------------------|------|
| Two luminaires, plane 0°  | 1.03 |
| Two luminaires, plane 90° | 1.1  |
| Four luminaires           | 1.16 |

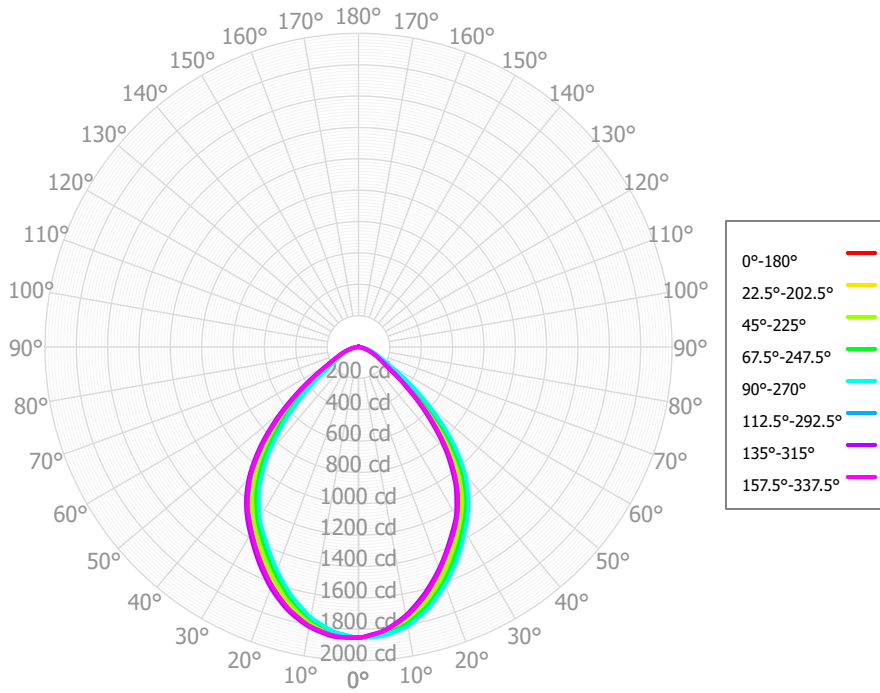
#### Full Beam Angle

|            |     |
|------------|-----|
| 0° - 180°  | 83° |
| 90° - 270° | 82° |

### IES File Header Contents

| Keyword   | Value  |
|-----------|--|
| TEST      | SP-01611_2                                     |
| TESTLAB   | Spectrum Lighting Photometric Lab, VLS-245-981 |
| MANUFAC   | Spectrum Lighting                              |
| TESTDATE  | 11/6/2023                                      |
| ISSUEDATE | 11/07/2023                                     |
| LUMCAT    | SN24 30L 30HK xx xx xx MWI                     |
| LUMINAIRE | 24" x 23.5" Spin Pendant 30L 30HK MWI          |
| OTHER     | Beam Angle: 82 deg                             |
| OTHER     | 90 CRI, 3000K tested                           |
| OTHER     | Total luminaire wattages are approximate       |
| OTHER     | This report prepared by Spectrum Lighting      |
| _CRI      | 90+  |
| _CCTMULT  | 27HK x 0.99, 35HK x 1.01                       |
| _LAMPMULT | 20L x .66, 10L x .35                           |

### Candela Polar Plot



### Zonal Lumen Summary

| Zone            | Lumens  | % Fixture | Zone              | Lumens  | % Fixture |
|-----------------|---------|-----------|-------------------|---------|-----------|
| 0.00° - 10.00°  | 175.65  | 5.66%     | 90.00° - 100.00°  | 1.58    | 0.05%     |
| 10.00° - 20.00° | 472.21  | 15.21%    | 100.00° - 110.00° | 1.46    | 0.05%     |
| 20.00° - 30.00° | 661.51  | 21.30%    | 100.00° - 120.00° | 2.91    | 0.09%     |
| 30.00° - 40.00° | 721.93  | 23.25%    | 120.00° - 130.00° | 1.44    | 0.05%     |
| 40.00° - 50.00° | 576.16  | 18.55%    | 130.00° - 140.00° | 1.27    | 0.04%     |
| 50.00° - 60.00° | 291.30  | 9.38%     | 140.00° - 150.00° | 1.06    | 0.03%     |
| 60.00° - 70.00° | 130.01  | 4.19%     | 150.00° - 160.00° | 0.78    | 0.03%     |
| 70.00° - 80.00° | 55.97   | 1.80%     | 160.00° - 170.00° | 0.49    | 0.02%     |
| 80.00° - 90.00° | 10.82   | 0.35%     | 170.00° - 180.00° | 0.19    | 0.01%     |
| 0.00° - 90.00°  | 3095.54 | 99.69%    | 0.00° - 180.00°   | 3105.27 | 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°   | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 | 1853.96 |
| 2.50°   | 1838.28 | 1843.86 | 1844.79 | 1850.63 | 1852.81 | 1854.78 | 1855.95 | 1853.75 | 1852.53 | 1847.72 | 1847.28 | 1840.23 | 1839.22 | 1839.73 | 1836.71 | 1840.22 | 1838.28 |
| 5.00°   | 1820.27 | 1831.37 | 1833.10 | 1845.51 | 1848.45 | 1851.57 | 1853.85 | 1847.16 | 1847.16 | 1839.43 | 1837.02 | 1824.50 | 1821.23 | 1820.75 | 1817.01 | 1819.85 | 1820.27 |
| 7.50°   | 1785.87 | 1799.88 | 1805.10 | 1819.22 | 1829.75 | 1831.59 | 1835.91 | 1828.21 | 1826.76 | 1814.27 | 1810.87 | 1794.01 | 1787.00 | 1786.75 | 1779.53 | 1785.14 | 1785.87 |
| 10.00°  | 1746.26 | 1767.27 | 1773.63 | 1792.33 | 1807.54 | 1808.03 | 1813.36 | 1805.33 | 1801.43 | 1788.57 | 1780.76 | 1761.84 | 1751.05 | 1748.46 | 1737.36 | 1745.80 | 1746.26 |
| 12.50°  | 1696.95 | 1718.09 | 1728.46 | 1750.19 | 1767.53 | 1769.38 | 1778.85 | 1768.12 | 1765.31 | 1745.74 | 1738.65 | 1713.83 | 1698.00 | 1697.20 | 1683.74 | 1696.19 | 1696.95 |
| 15.00°  | 1644.90 | 1668.02 | 1680.79 | 1707.67 | 1724.78 | 1727.97 | 1739.61 | 1726.96 | 1723.30 | 1702.07 | 1692.30 | 1664.25 | 1643.65 | 1642.57 | 1627.55 | 1642.08 | 1644.90 |
| 17.50°  | 1583.60 | 1608.24 | 1621.99 | 1650.95 | 1670.42 | 1674.54 | 1689.48 | 1674.54 | 1669.66 | 1644.29 | 1634.49 | 1603.34 | 1580.92 | 1578.83 | 1565.97 | 1579.07 | 1583.60 |
| 20.00°  | 1520.02 | 1547.79 | 1561.54 | 1593.84 | 1614.81 | 1619.27 | 1635.45 | 1619.41 | 1613.25 | 1585.95 | 1574.64 | 1541.70 | 1517.75 | 1514.28 | 1503.34 | 1514.75 | 1520.02 |
| 22.50°  | 1454.86 | 1481.92 | 1497.14 | 1528.79 | 1554.59 | 1556.89 | 1573.32 | 1556.84 | 1551.95 | 1520.96 | 1509.95 | 1475.75 | 1451.34 | 1447.78 | 1436.88 | 1448.10 | 1454.86 |
| 25.00°  | 1389.37 | 1416.29 | 1432.27 | 1463.71 | 1492.48 | 1493.67 | 1509.96 | 1492.75 | 1489.36 | 1456.20 | 1445.36 | 1410.32 | 1384.84 | 1383.04 | 1369.80 | 1383.23 | 1389.37 |
| 27.50°  | 1325.81 | 1352.21 | 1369.19 | 1398.24 | 1424.17 | 1428.14 | 1444.32 | 1427.84 | 1424.72 | 1393.42 | 1380.99 | 1347.50 | 1323.56 | 1322.05 | 1306.41 | 1321.27 | 1325.81 |
| 30.00°  | 1262.60 | 1287.43 | 1306.27 | 1332.79 | 1356.88 | 1362.41 | 1379.85 | 1362.80 | 1360.12 | 1330.20 | 1315.43 | 1282.99 | 1261.90 | 1255.68 | 1243.50 | 1254.81 | 1262.60 |
| 32.50°  | 1186.11 | 1218.83 | 1235.21 | 1267.45 | 1292.47 | 1296.80 | 1317.36 | 1299.42 | 1295.58 | 1263.77 | 1247.58 | 1211.33 | 1184.03 | 1178.97 | 1162.29 | 1181.71 | 1186.11 |
| 35.00°  | 1107.71 | 1145.66 | 1163.63 | 1199.67 | 1223.60 | 1231.20 | 1249.64 | 1236.28 | 1225.67 | 1194.42 | 1173.55 | 1134.73 | 1105.04 | 1094.27 | 1079.21 | 1098.33 | 1107.71 |
| 37.50°  | 1007.91 | 1051.54 | 1069.81 | 1112.89 | 1143.52 | 1148.60 | 1173.98 | 1154.28 | 1148.65 | 1108.55 | 1088.75 | 1040.21 | 1002.26 | 995.68  | 976.17  | 1001.33 | 1007.91 |
| 40.00°  | 905.63  | 952.83  | 975.11  | 1022.64 | 1055.97 | 1065.32 | 1087.33 | 1070.19 | 1059.91 | 1018.40 | 994.99  | 940.86  | 898.35  | 890.18  | 871.69  | 895.69  | 905.63  |
| 42.50°  | 787.90  | 836.32  | 858.16  | 910.25  | 951.53  | 957.14  | 985.42  | 962.51  | 957.18  | 907.74  | 887.02  | 826.04  | 779.56  | 773.88  | 751.50  | 779.56  | 787.90  |
| 45.00°  | 668.87  | 719.24  | 740.88  | 796.53  | 840.86  | 848.52  | 875.98  | 852.92  | 846.07  | 794.91  | 772.34  | 709.44  | 660.78  | 655.93  | 630.56  | 660.61  | 668.87  |
| 47.50°  | 550.38  | 600.26  | 621.17  | 675.81  | 717.42  | 727.04  | 757.12  | 731.13  | 725.76  | 673.07  | 648.07  | 587.77  | 542.00  | 535.64  | 514.72  | 538.52  | 550.38  |
| 50.00°  | 431.93  | 484.23  | 501.96  | 556.48  | 597.04  | 605.75  | 637.91  | 608.65  | 605.98  | 552.99  | 529.11  | 470.70  | 426.01  | 424.46  | 399.04  | 427.02  | 431.93  |
| 52.50°  | 337.34  | 377.13  | 396.76  | 443.33  | 482.27  | 489.87  | 518.32  | 493.29  | 486.72  | 439.14  | 417.01  | 365.18  | 330.84  | 325.01  | 311.62  | 326.16  | 337.34  |
| 55.00°  | 243.53  | 282.98  | 294.05  | 337.77  | 376.62  | 375.82  | 408.91  | 378.15  | 380.55  | 334.41  | 320.80  | 274.83  | 242.89  | 247.76  | 225.58  | 250.47  | 243.53  |
| 57.50°  | 201.34  | 223.21  | 233.35  | 261.06  | 286.15  | 292.68  | 310.02  | 293.22  | 286.24  | 258.33  | 243.32  | 218.14  | 199.50  | 196.67  | 189.56  | 197.94  | 201.34  |
| 60.00°  | 159.93  | 173.37  | 175.61  | 195.16  | 216.69  | 213.44  | 236.13  | 209.50  | 219.86  | 194.22  | 187.83  | 171.48  | 159.21  | 158.51  | 154.12  | 160.71  | 159.93  |
| 62.50°  | 135.81  | 146.80  | 151.16  | 165.45  | 178.65  | 178.18  | 185.93  | 176.72  | 176.34  | 162.99  | 156.08  | 145.00  | 134.64  | 134.30  | 129.94  | 136.19  | 135.81  |
| 65.00°  | 111.85  | 121.75  | 127.10  | 137.58  | 146.46  | 144.28  | 150.51  | 144.38  | 144.14  | 134.17  | 129.11  | 120.05  | 111.11  | 111.66  | 106.09  | 113.27  | 111.85  |
| 67.50°  | 91.78   | 99.88   | 106.23  | 115.08  | 122.28  | 122.16  | 127.74  | 122.35  | 120.42  | 111.29  | 106.81  | 97.92   | 92.07   | 90.56   | 86.38   | 91.56   | 91.78   |
| 70.00°  | 71.99   | 79.73   | 85.68   | 93.31   | 100.56  | 100.51  | 106.30  | 100.50  | 99.19   | 89.75   | 86.92   | 77.56   | 73.51   | 71.48   | 67.12   | 72.41   | 71.99   |
| 72.50°  | 56.36   | 62.88   | 67.31   | 73.43   | 81.88   | 81.95   | 85.92   | 81.15   | 79.65   | 71.11   | 69.17   | 60.10   | 56.76   | 54.17   | 52.21   | 55.01   | 56.36   |
| 75.00°  | 41.05   | 47.13   | 49.65   | 55.57   | 64.59   | 63.93   | 67.76   | 62.18   | 62.43   | 53.83   | 52.77   | 44.44   | 40.89   | 39.91   | 37.66   | 40.66   | 41.05   |
| 77.50°  | 29.18   | 33.29   | 35.99   | 42.48   | 48.84   | 48.88   | 51.20   | 47.00   | 46.63   | 39.21   | 37.47   | 31.43   | 27.94   | 28.09   | 25.81   | 28.22   | 29.18   |
| 80.00°  | 17.71   | 21.35   | 23.08   | 29.77   | 34.66   | 34.29   | 36.93   | 32.38   | 33.26   | 26.17   | 24.51   | 20.14   | 16.40   | 17.81   | 14.66   | 18.26   | 17.71   |
| 82.50°  | 9.66    | 12.36   | 13.64   | 17.88   | 22.07   | 21.83   | 24.15   | 22.21   | 21.21   | 15.92   | 13.27   | 11.14   | 8.90    | 8.66    | 7.69    | 9.69    | 9.66    |
| 85.00°  | 2.59    | 5.83    | 5.53    | 8.64    | 12.63   | 10.80   | 14.86   | 12.64   | 12.49   | 8.09    | 6.90    | 5.06    | 3.23    | 3.79    | 1.85    | 5.03    | 2.59    |
| 87.50°  | 2.01    | 2.80    | 2.84    | 4.34    | 6.13    | 5.63    | 7.60    | 6.82    | 5.44    | 4.16    | 3.76    | 2.59    | 2.25    | 1.77    | 1.74    | 2.35    | 2.01    |
| 90.00°  | 1.52    | 1.12    | 0.82    | 1.51    | 2.59    | 1.56    | 3.80    | 1.88    | 2.50    | 1.80    | 2.09    | 1.35    | 1.56    | 1.07    | 1.61    | 1.31    | 1.52    |
| 92.50°  | 1.58    | 1.20    | 1.09    | 1.15    | 1.58    | 1.34    | 1.83    | 1.61    | 1.39    | 1.73    | 1.32    | 1.48    | 1.55    | 1.18    | 1.33    | 1.02    | 1.58    |
| 95.00°  | 1.65    | 1.33    | 1.38    | 1.18    | 1.22    | 1.15    | 1.18    | 1.39    | 1.23    | 1.62    | 1.10    | 1.46    | 1.56    | 1.27    | 1.16    | 1.28    | 1.65    |
| 97.50°  | 1.75    | 1.55    | 1.73    | 1.82    | 1.37    | 1.06    | 1.16    | 1.34    | 1.45    | 1.47    | 1.18    | 1.27    | 1.64    | 1.34    | 1.37    | 1.78    | 1.75    |
| 100.00° | 1.78    | 1.68    | 1.87    | 1.99    | 1.34    | 1.06    | 1.17    | 1.32    | 1.56    | 1.37    | 1.24    | 1.20    | 1.52    | 1.35    | 1.53    | 1.74    | 1.78    |
| 102.50° | 1.59    | 1.71    | 1.45    | 1.48    | 1.19    | 1.27    | 1.19    | 1.37    | 1.62    | 1.34    | 1.28    | 1.22    | 1.04    | 1.34    | 1.50    | 1.50    | 1.59    |
| 105.00° | 1.45    | 1.74    | 1.17    | 1.11    | 1.18    | 1.42    | 1.21    | 1.40    | 1.61    | 1.26    | 1.39    | 1.22    | 0.93    | 1.40    | 1.45    | 1.52    | 1.45    |

### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

|            |            |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|------------|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>RCR</b> | <b>ptc</b> | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 20%  | 0%   |
|            | <b>pcc</b> | 80%  | 80%  | 80%  | 80%  | 70%  | 70%  | 70%  | 70%  | 50%  | 50%  | 50%  | 30%  | 30%  | 30%  | 10%  | 10%  | 0%   |
|            | <b>pw</b>  | 70%  | 50%  | 30%  | 10%  | 70%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 10%  | 50%  | 30%  | 30%  |
|            | <b>0</b>   | 3694 | 3694 | 3694 | 3694 | 3607 | 3607 | 3607 | 3607 | 3445 | 3445 | 3445 | 3296 | 3296 | 3296 | 3160 | 3160 | 3096 |
|            | <b>1</b>   | 3461 | 3349 | 3248 | 3158 | 3380 | 3279 | 3188 | 3106 | 3149 | 3075 | 3008 | 3029 | 2970 | 2915 | 2919 | 2872 | 2813 |
|            | <b>2</b>   | 3220 | 3021 | 2856 | 2718 | 3145 | 2964 | 2814 | 2686 | 2858 | 2732 | 2624 | 2759 | 2656 | 2564 | 2668 | 2584 | 2529 |
|            | <b>3</b>   | 2993 | 2732 | 2529 | 2368 | 2923 | 2685 | 2498 | 2347 | 2596 | 2437 | 2306 | 2515 | 2380 | 2267 | 2439 | 2326 | 2278 |
|            | <b>4</b>   | 2785 | 2479 | 2256 | 2085 | 2720 | 2440 | 2232 | 2071 | 2366 | 2186 | 2044 | 2298 | 2143 | 2017 | 2234 | 2101 | 2058 |
|            | <b>5</b>   | 2594 | 2260 | 2026 | 1854 | 2535 | 2227 | 2008 | 1844 | 2165 | 1973 | 1825 | 2107 | 1939 | 1807 | 2053 | 1906 | 1868 |
|            | <b>6</b>   | 2421 | 2068 | 1832 | 1662 | 2367 | 2041 | 1817 | 1655 | 1988 | 1789 | 1641 | 1938 | 1762 | 1628 | 1892 | 1737 | 1703 |
|            | <b>7</b>   | 2264 | 1901 | 1666 | 1501 | 2215 | 1877 | 1654 | 1496 | 1832 | 1632 | 1486 | 1790 | 1610 | 1476 | 1750 | 1589 | 1560 |
|            | <b>8</b>   | 2123 | 1755 | 1523 | 1364 | 2078 | 1734 | 1514 | 1360 | 1695 | 1495 | 1352 | 1659 | 1478 | 1345 | 1624 | 1460 | 1434 |
|            | <b>9</b>   | 1995 | 1626 | 1399 | 1247 | 1954 | 1608 | 1392 | 1244 | 1574 | 1377 | 1238 | 1543 | 1362 | 1232 | 1513 | 1348 | 1325 |
|            | <b>10</b>  | 1879 | 1512 | 1292 | 1146 | 1842 | 1496 | 1285 | 1143 | 1467 | 1273 | 1139 | 1439 | 1261 | 1134 | 1413 | 1249 | 1228 |

### Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft     | 61.3 fc     | 9.7 ft        |
| 6.5 ft     | 43.9 fc     | 11.4 ft       |
| 7.5 ft     | 33.0 fc     | 13.2 ft       |
| 8.0 ft     | 29.0 fc     | 14.1 ft       |
| 10.0 ft    | 18.5 fc     | 17.6 ft       |
| 12.0 ft    | 12.9 fc     | 21.1 ft       |
| 14.0 ft    | 9.5 fc      | 24.6 ft       |
| 16.0 ft    | 7.2 fc      | 28.2 ft       |
| 20.0 ft    | 4.6 fc      | 35.2 ft       |
| 24.0 ft    | 3.2 fc      | 42.3 ft       |
| 28.0 ft    | 2.4 fc      | 49.3 ft       |

### Average Luminaire Luminance [cd/m²]

|               | 0.00° | 45.00° | 90.00° |
|---------------|-------|--------|--------|
| <b>0.00°</b>  | 6352  | 6352   | 6352   |
| <b>45.00°</b> | 3241  | 3590   | 4074   |
| <b>55.00°</b> | 1455  | 1756   | 2250   |
| <b>65.00°</b> | 907   | 1030   | 1187   |
| <b>75.00°</b> | 543   | 657    | 855    |
| <b>85.00°</b> | 102   | 217    | 497    |

### UGR CIE 190:2010

|                            |            |                         |            |            |            |            |                       |            |            |            |            |
|----------------------------|------------|-------------------------|------------|------------|------------|------------|-----------------------|------------|------------|------------|------------|
| <b>Ceiling reflectance</b> |            | <b>0.7</b>              | <b>0.7</b> | <b>0.5</b> | <b>0.5</b> | <b>0.3</b> | <b>0.7</b>            | <b>0.7</b> | <b>0.5</b> | <b>0.5</b> | <b>0.3</b> |
| <b>Wall reflectance</b>    |            | <b>0.5</b>              | <b>0.3</b> | <b>0.5</b> | <b>0.3</b> | <b>0.3</b> | <b>0.5</b>            | <b>0.3</b> | <b>0.5</b> | <b>0.3</b> | <b>0.3</b> |
| <b>Plane reflectance</b>   |            | <b>0.2</b>              | <b>0.2</b> | <b>0.2</b> | <b>0.2</b> | <b>0.2</b> | <b>0.2</b>            | <b>0.2</b> | <b>0.2</b> | <b>0.2</b> | <b>0.2</b> |
| <b>Room dimensions</b>     |            | <b>Viewed crosswise</b> |            |            |            |            | <b>Viewed endwise</b> |            |            |            |            |
| <b>2H</b>                  | <b>2H</b>  | 9.5                     | 10.8       | 9.9        | 11.2       | 11.5       | 10.9                  | 12.2       | 11.3       | 12.6       | 12.9       |
|                            | <b>3H</b>  | 10.4                    | 11.5       | 10.7       | 11.9       | 12.2       | 11.7                  | 12.9       | 12.1       | 13.2       | 13.6       |
|                            | <b>4H</b>  | 10.6                    | 11.7       | 11.0       | 12.0       | 12.4       | 11.9                  | 13.0       | 12.3       | 13.4       | 13.8       |
|                            | <b>6H</b>  | 10.6                    | 11.7       | 11.1       | 12.0       | 12.4       | 12.0                  | 13.1       | 12.5       | 13.4       | 13.8       |
|                            | <b>8H</b>  | 10.6                    | 11.6       | 11.1       | 12.0       | 12.4       | 12.1                  | 13.0       | 12.5       | 13.4       | 13.8       |
|                            | <b>12H</b> | 10.6                    | 11.5       | 11.0       | 11.9       | 12.4       | 12.1                  | 13.0       | 12.5       | 13.4       | 13.8       |
| <b>4H</b>                  | <b>2H</b>  | 9.8                     | 10.9       | 10.2       | 11.3       | 11.7       | 11.2                  | 12.3       | 11.6       | 12.6       | 13.0       |
|                            | <b>3H</b>  | 10.8                    | 11.7       | 11.2       | 12.1       | 12.5       | 12.1                  | 13.1       | 12.6       | 13.5       | 13.9       |
|                            | <b>4H</b>  | 11.1                    | 11.9       | 11.6       | 12.3       | 12.8       | 12.5                  | 13.3       | 12.9       | 13.7       | 14.2       |
|                            | <b>6H</b>  | 11.2                    | 11.9       | 11.7       | 12.4       | 12.9       | 12.7                  | 13.4       | 13.1       | 13.8       | 14.3       |
|                            | <b>8H</b>  | 11.2                    | 11.9       | 11.7       | 12.3       | 12.8       | 12.7                  | 13.4       | 13.2       | 13.8       | 14.3       |
|                            | <b>12H</b> | 11.2                    | 11.8       | 11.7       | 12.3       | 12.8       | 12.7                  | 13.3       | 13.2       | 13.8       | 14.2       |
| <b>8H</b>                  | <b>4H</b>  | 11.2                    | 11.8       | 11.7       | 12.3       | 12.8       | 12.6                  | 13.2       | 13.1       | 13.7       | 14.2       |
|                            | <b>6H</b>  | 11.4                    | 11.9       | 11.9       | 12.4       | 12.9       | 12.8                  | 13.4       | 13.3       | 13.9       | 14.4       |
|                            | <b>8H</b>  | 11.4                    | 11.8       | 11.9       | 12.4       | 12.9       | 12.9                  | 13.4       | 13.4       | 13.9       | 14.4       |
|                            | <b>12H</b> | 11.3                    | 11.8       | 11.9       | 12.3       | 12.8       | 12.9                  | 13.3       | 13.4       | 13.8       | 14.4       |
| <b>12H</b>                 | <b>4H</b>  | 11.2                    | 11.7       | 11.6       | 12.2       | 12.7       | 12.6                  | 13.1       | 13.1       | 13.6       | 14.1       |
|                            | <b>6H</b>  | 11.3                    | 11.8       | 11.9       | 12.3       | 12.8       | 12.8                  | 13.3       | 13.4       | 13.8       | 14.3       |
|                            | <b>8H</b>  | 11.4                    | 11.8       | 11.9       | 12.3       | 12.9       | 12.9                  | 13.3       | 13.4       | 13.8       | 14.4       |

Corrected UGR values based on total output energy  
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0