

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD MW GL (nadir)
Nom. 3" Round Deep Adjustable A-Spec, Medium Beam

Test Number

SP-01397_2

Test Date

9/12/2022

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

Summary of Results

Power

| | |
|-------------|--------|
| Input Watts | 26.3 W |
|-------------|--------|

Lumen Output

| | |
|---------------|------------|
| Output Lumens | 1905 |
| Efficacy | 72.45 lm/W |

Luminous Dimensions

| | |
|-----------------|-------|
| 0° - 180° Size | -0.25 |
| 90° - 270° Size | -0.25 |
| Height | 0 |

Spacing Criterion

| | |
|---------------------------|------|
| Two luminaires, plane 0° | 0.71 |
| Two luminaires, plane 90° | 0.71 |
| Four luminaires | 0.69 |

Full Beam Angle

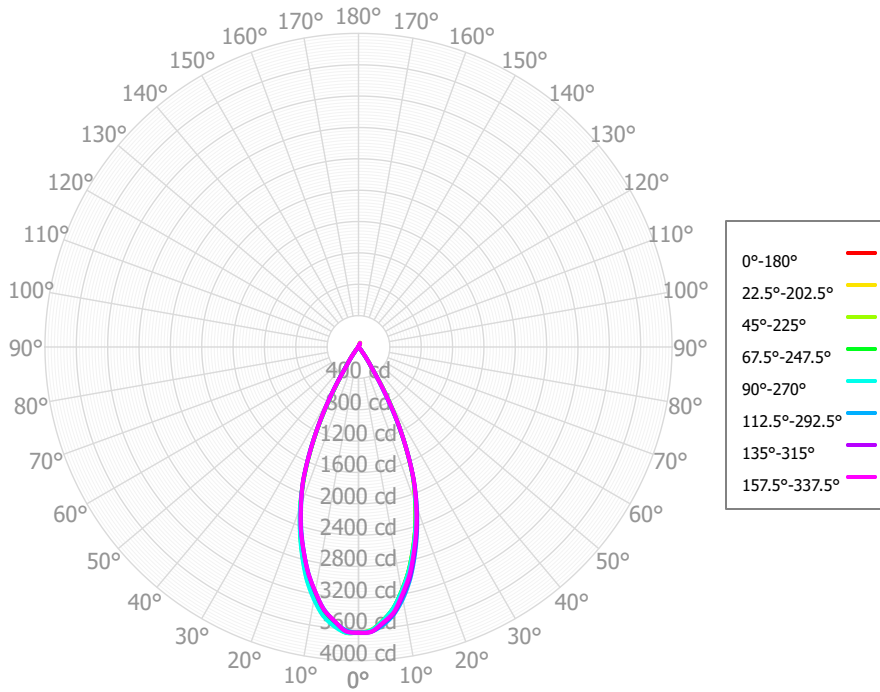
| | |
|------------|-----|
| 0° - 180° | 45° |
| 90° - 270° | 45° |

IES File Header Contents

| Keyword | Value |
|------------|--|
| TEST | SP-01397_2 |
| TESTLAB | Spectrum Lighting Photometric Lab, VLS-245-981 |
| MANUFAC | Spectrum Lighting |
| TESTDATE | 9/12/2022 |
| ISSUE DATE | 12/19/2022 |
| LUMCAT | SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD MW GL (nadir) |
| LUMINAIRE | Nom. 3" Round Deep Adjustable A-Spec, Medium Beam |
| OTHER | Matte White Trim, Clear Glass Lens |
| OTHER | 45 Degree Beam Angle |
| LAMP | N/A, 19mm LES |
| LAMPCAT | N/A, Min. 80 CRI |
| OTHER | Reference project SL167 |
| OTHER | minus 2W, no thermal protection required for 7L, 10L, and 15L (non-IC) |
| OTHER | minus 2W, no thermal protection required for all (including 20L and 25L) IC luminaires |
| OTHER | Total Luminaire Watts is approximate |
| OTHER | This report prepared by Spectrum Lighting |
| _CRI | 80 |

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD
 MW GL (nadir)

Candela Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % Fixture | Zone | Lumens | % Fixture |
|-----------------|---------|-----------|-------------------|---------|-----------|
| 0.00° - 10.00° | 331.24 | 17.38% | 90.00° - 100.00° | 1.89 | 0.10% |
| 10.00° - 20.00° | 748.35 | 39.28% | 100.00° - 110.00° | 1.83 | 0.10% |
| 20.00° - 30.00° | 640.17 | 33.60% | 100.00° - 120.00° | 3.80 | 0.20% |
| 30.00° - 40.00° | 133.64 | 7.01% | 120.00° - 130.00° | 2.22 | 0.12% |
| 40.00° - 50.00° | 14.21 | 0.75% | 130.00° - 140.00° | 2.79 | 0.15% |
| 50.00° - 60.00° | 5.49 | 0.29% | 140.00° - 150.00° | 2.99 | 0.16% |
| 60.00° - 70.00° | 4.76 | 0.25% | 150.00° - 160.00° | 6.12 | 0.32% |
| 70.00° - 80.00° | 2.82 | 0.15% | 160.00° - 170.00° | 2.59 | 0.14% |
| 80.00° - 90.00° | 2.11 | 0.11% | 170.00° - 180.00° | 0.22 | 0.01% |
| 0.00° - 90.00° | 1882.79 | 98.81% | 0.00° - 180.00° | 1905.41 | 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° | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 | 3644.81 |
| 2.50° | 3625.18 | 3624.93 | 3612.07 | 3622.24 | 3618.20 | 3616.48 | 3631.31 | 3630.93 | 3628.91 | 3633.27 | 3629.76 | 3649.01 | 3649.49 | 3636.18 | 3640.54 | 3636.75 | 3625.18 |
| 5.00° | 3521.46 | 3513.73 | 3514.29 | 3504.53 | 3510.48 | 3517.67 | 3512.69 | 3508.41 | 3525.39 | 3537.45 | 3553.75 | 3562.57 | 3577.41 | 3565.47 | 3544.55 | 3532.98 | 3521.46 |
| 7.50° | 3393.37 | 3380.07 | 3366.09 | 3370.31 | 3365.44 | 3373.80 | 3382.81 | 3380.37 | 3394.98 | 3415.91 | 3421.87 | 3452.86 | 3459.92 | 3444.41 | 3432.97 | 3418.32 | 3393.37 |
| 10.00° | 3184.90 | 3166.21 | 3169.35 | 3160.12 | 3165.54 | 3178.83 | 3173.59 | 3169.90 | 3193.76 | 3216.43 | 3234.70 | 3252.72 | 3273.38 | 3263.99 | 3233.90 | 3207.63 | 3184.90 |
| 12.50° | 2957.49 | 2936.66 | 2937.73 | 2939.54 | 2940.72 | 2953.27 | 2958.68 | 2957.50 | 2977.25 | 2999.74 | 3011.00 | 3035.03 | 3049.06 | 3039.27 | 3021.35 | 2989.22 | 2957.49 |
| 15.00° | 2691.32 | 2675.17 | 2680.89 | 2677.32 | 2683.93 | 2698.24 | 2701.51 | 2701.05 | 2725.58 | 2737.97 | 2755.00 | 2759.54 | 2773.58 | 2767.91 | 2747.14 | 2719.11 | 2691.32 |
| 17.50° | 2417.64 | 2408.67 | 2407.92 | 2410.86 | 2414.46 | 2427.59 | 2442.64 | 2443.04 | 2459.00 | 2464.88 | 2471.11 | 2476.17 | 2485.50 | 2480.37 | 2467.89 | 2445.23 | 2417.64 |
| 20.00° | 2126.69 | 2122.66 | 2118.78 | 2123.40 | 2129.40 | 2136.14 | 2147.48 | 2146.44 | 2162.37 | 2165.91 | 2165.23 | 2170.50 | 2182.20 | 2177.62 | 2169.34 | 2151.25 | 2126.69 |
| 22.50° | 1833.06 | 1834.30 | 1820.46 | 1834.50 | 1838.90 | 1834.97 | 1850.39 | 1843.06 | 1834.84 | 1836.81 | 1817.14 | 1835.47 | 1839.19 | 1835.38 | 1849.70 | 1841.98 | 1833.06 |
| 25.00° | 1454.50 | 1459.20 | 1462.47 | 1462.99 | 1467.15 | 1458.93 | 1450.99 | 1445.27 | 1451.64 | 1447.22 | 1439.37 | 1428.26 | 1453.34 | 1459.60 | 1461.65 | 1464.74 | 1454.50 |
| 27.50° | 1065.83 | 1076.63 | 1074.57 | 1088.39 | 1071.04 | 1052.28 | 1051.74 | 1047.29 | 1053.26 | 1045.66 | 1021.69 | 1018.33 | 1042.12 | 1047.83 | 1065.48 | 1079.61 | 1065.83 |
| 30.00° | 681.72 | 691.80 | 706.00 | 695.54 | 688.53 | 676.43 | 655.89 | 647.39 | 630.62 | 622.88 | 579.04 | 602.45 | 606.44 | 608.80 | 646.70 | 665.06 | 681.72 |
| 32.50° | 297.99 | 306.85 | 345.95 | 307.99 | 309.47 | 311.50 | 280.42 | 283.16 | 323.36 | 311.22 | 316.28 | 286.21 | 320.26 | 330.90 | 310.79 | 317.20 | 297.99 |
| 35.00° | 179.25 | 186.30 | 176.80 | 182.92 | 164.25 | 160.06 | 171.05 | 172.76 | 180.00 | 174.22 | 154.41 | 161.05 | 162.75 | 161.84 | 175.96 | 180.67 | 179.25 |
| 37.50° | 74.48 | 72.95 | 82.00 | 62.54 | 68.42 | 73.77 | 70.16 | 75.03 | 85.00 | 80.60 | 77.50 | 71.73 | 75.94 | 77.62 | 75.12 | 73.38 | 74.48 |
| 40.00° | 48.86 | 47.90 | 43.72 | 40.22 | 38.98 | 41.70 | 46.09 | 48.40 | 51.23 | 47.61 | 42.67 | 43.21 | 43.43 | 44.30 | 46.51 | 45.93 | 48.86 |
| 42.50° | 25.08 | 23.41 | 24.50 | 19.19 | 20.92 | 23.66 | 24.11 | 25.28 | 28.31 | 25.33 | 24.47 | 22.42 | 24.33 | 25.51 | 24.74 | 24.16 | 25.08 |
| 45.00° | 17.60 | 16.83 | 15.46 | 14.31 | 14.03 | 15.51 | 16.43 | 18.50 | 17.64 | 16.54 | 13.50 | 13.27 | 14.40 | 14.43 | 15.81 | 15.89 | 17.60 |
| 47.50° | 10.28 | 10.48 | 9.35 | 9.77 | 8.65 | 9.50 | 9.67 | 12.41 | 10.52 | 10.80 | 9.06 | 7.56 | 9.04 | 9.12 | 9.45 | 9.46 | 10.28 |
| 50.00° | 7.99 | 7.93 | 7.22 | 8.29 | 7.27 | 7.87 | 7.93 | 9.03 | 7.00 | 8.49 | 7.10 | 6.45 | 6.48 | 6.52 | 7.38 | 6.86 | 7.99 |
| 52.50° | 5.84 | 5.66 | 6.06 | 6.98 | 6.31 | 7.03 | 6.48 | 6.31 | 5.32 | 6.78 | 6.39 | 5.73 | 5.73 | 5.65 | 6.17 | 5.30 | 5.84 |
| 55.00° | 5.78 | 6.29 | 6.29 | 6.88 | 5.78 | 6.53 | 6.32 | 5.79 | 5.32 | 5.68 | 6.09 | 5.47 | 5.96 | 5.50 | 6.24 | 5.69 | 5.78 |
| 57.50° | 5.72 | 6.78 | 6.81 | 6.78 | 5.28 | 6.08 | 5.99 | 5.37 | 5.38 | 5.21 | 5.90 | 5.32 | 5.54 | 5.52 | 6.27 | 5.90 | 5.72 |
| 60.00° | 5.55 | 6.05 | 6.16 | 6.72 | 6.01 | 5.89 | 5.03 | 5.24 | 5.49 | 5.31 | 5.74 | 5.27 | 4.80 | 5.61 | 6.23 | 5.81 | 5.55 |
| 62.50° | 5.33 | 5.39 | 5.32 | 6.42 | 6.78 | 5.73 | 4.39 | 5.10 | 5.41 | 5.02 | 5.05 | 4.75 | 4.84 | 5.40 | 5.67 | 5.61 | 5.33 |
| 65.00° | 4.83 | 5.16 | 5.31 | 5.05 | 5.54 | 4.98 | 4.77 | 4.92 | 5.20 | 4.42 | 4.24 | 3.78 | 5.21 | 5.10 | 4.49 | 5.23 | 4.83 |
| 67.50° | 4.29 | 4.83 | 5.41 | 3.93 | 4.29 | 4.20 | 4.74 | 4.41 | 4.38 | 3.99 | 3.59 | 3.36 | 4.45 | 4.43 | 3.84 | 4.78 | 4.29 |
| 70.00° | 3.51 | 3.99 | 4.26 | 3.75 | 3.78 | 4.10 | 3.63 | 3.16 | 3.16 | 3.67 | 2.98 | 3.43 | 3.28 | 3.66 | 3.74 | 4.25 | 3.51 |
| 72.50° | 2.84 | 3.20 | 2.99 | 3.49 | 3.26 | 4.02 | 2.89 | 2.29 | 2.55 | 3.02 | 2.57 | 3.07 | 2.69 | 3.01 | 3.40 | 3.67 | 2.84 |
| 75.00° | 2.73 | 2.55 | 2.50 | 2.97 | 2.58 | 2.74 | 3.02 | 2.17 | 2.29 | 2.15 | 2.20 | 2.38 | 2.28 | 2.39 | 2.83 | 3.04 | 2.73 |
| 77.50° | 2.55 | 2.05 | 2.07 | 2.51 | 1.97 | 1.47 | 2.88 | 2.13 | 2.36 | 1.84 | 2.03 | 2.17 | 2.07 | 2.21 | 2.39 | 2.58 | 2.55 |
| 80.00° | 2.15 | 2.08 | 1.93 | 2.19 | 2.20 | 1.73 | 2.20 | 2.25 | 2.60 | 1.84 | 1.88 | 2.29 | 1.92 | 2.10 | 2.07 | 2.29 | 2.15 |
| 82.50° | 1.82 | 2.14 | 1.80 | 1.86 | 2.38 | 1.97 | 1.84 | 2.16 | 2.45 | 1.85 | 2.19 | 2.16 | 1.93 | 1.87 | 1.93 | 2.08 | 1.82 |
| 85.00° | 1.77 | 2.24 | 1.84 | 1.49 | 2.15 | 1.89 | 2.08 | 1.74 | 2.12 | 1.87 | 2.53 | 1.89 | 1.98 | 1.63 | 1.91 | 1.94 | 1.77 |
| 87.50° | 1.74 | 2.20 | 1.87 | 1.26 | 1.92 | 1.80 | 2.13 | 1.66 | 1.95 | 1.93 | 1.99 | 1.72 | 2.09 | 1.64 | 1.87 | 1.69 | 1.74 |
| 90.00° | 1.80 | 1.77 | 1.56 | 1.32 | 1.69 | 1.75 | 1.84 | 2.01 | 1.82 | 2.01 | 1.41 | 1.60 | 2.21 | 1.68 | 1.82 | 1.34 | 1.80 |
| 92.50° | 1.78 | 1.48 | 1.28 | 1.38 | 1.51 | 1.73 | 1.73 | 2.07 | 1.91 | 1.92 | 1.74 | 1.50 | 1.87 | 1.69 | 1.78 | 1.47 | 1.78 |
| 95.00° | 1.56 | 1.50 | 1.57 | 1.44 | 1.57 | 2.00 | 1.90 | 1.77 | 2.07 | 1.76 | 2.10 | 1.40 | 1.46 | 1.71 | 1.74 | 1.94 | 1.56 |
| 97.50° | 1.43 | 1.57 | 1.83 | 1.61 | 1.65 | 2.19 | 1.92 | 1.75 | 1.94 | 1.77 | 2.18 | 1.58 | 1.54 | 1.63 | 1.86 | 1.88 | 1.43 |
| 100.00° | 1.47 | 1.75 | 1.66 | 1.97 | 1.83 | 1.77 | 1.77 | 2.03 | 1.73 | 1.83 | 2.25 | 1.87 | 1.68 | 1.55 | 2.07 | 1.46 | 1.47 |

SR3Mx 25L 35K MD xx xx RDA3F 25L 35K MD
 MW GL (nadir)

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 | 2263 | 2263 | 2263 | 2263 | 2208 | 2208 | 2208 | 2105 | 2105 | 2105 | 2010 | 2010 | 2010 | 1924 | 1924 | 1924 | 1883 |
| | 1 | 2171 | 2124 | 2082 | 2044 | 2122 | 2081 | 2043 | 2009 | 2000 | 1971 | 1944 | 1926 | 1903 | 1882 | 1858 | 1840 | 1802 |
| | 2 | 2082 | 2001 | 1934 | 1878 | 2039 | 1967 | 1907 | 1856 | 1903 | 1854 | 1812 | 1844 | 1805 | 1770 | 1789 | 1758 | 1722 |
| | 3 | 1997 | 1892 | 1811 | 1746 | 1959 | 1865 | 1790 | 1731 | 1813 | 1751 | 1700 | 1765 | 1714 | 1672 | 1721 | 1679 | 1646 |
| | 4 | 1917 | 1794 | 1704 | 1636 | 1883 | 1772 | 1689 | 1625 | 1730 | 1659 | 1604 | 1690 | 1631 | 1583 | 1654 | 1604 | 1574 |
| | 5 | 1840 | 1705 | 1611 | 1541 | 1810 | 1687 | 1599 | 1533 | 1652 | 1576 | 1518 | 1619 | 1554 | 1503 | 1589 | 1533 | 1506 |
| | 6 | 1768 | 1624 | 1528 | 1458 | 1741 | 1609 | 1518 | 1453 | 1580 | 1500 | 1441 | 1552 | 1483 | 1430 | 1527 | 1467 | 1441 |
| | 7 | 1699 | 1549 | 1452 | 1384 | 1675 | 1537 | 1445 | 1380 | 1512 | 1431 | 1372 | 1489 | 1417 | 1363 | 1467 | 1404 | 1380 |
| | 8 | 1634 | 1481 | 1384 | 1318 | 1612 | 1470 | 1378 | 1315 | 1449 | 1367 | 1308 | 1429 | 1356 | 1302 | 1411 | 1345 | 1323 |
| | 9 | 1573 | 1417 | 1322 | 1257 | 1553 | 1408 | 1317 | 1255 | 1390 | 1308 | 1250 | 1373 | 1298 | 1245 | 1357 | 1289 | 1270 |
| | 10 | 1515 | 1358 | 1265 | 1202 | 1497 | 1350 | 1261 | 1200 | 1335 | 1253 | 1196 | 1320 | 1245 | 1192 | 1306 | 1237 | 1219 |

Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft | 120.5 fc | 4.6 ft |
| 6.5 ft | 86.3 fc | 5.4 ft |
| 7.5 ft | 64.8 fc | 6.2 ft |
| 8.0 ft | 57.0 fc | 6.6 ft |
| 10.0 ft | 36.4 fc | 8.3 ft |
| 12.0 ft | 25.3 fc | 10.0 ft |
| 14.0 ft | 18.6 fc | 11.6 ft |
| 16.0 ft | 14.2 fc | 13.3 ft |
| 20.0 ft | 9.1 fc | 16.6 ft |
| 24.0 ft | 6.3 fc | 19.9 ft |
| 28.0 ft | 4.6 fc | 23.3 ft |

Average Luminaire Luminance [cd/m²]

| | 0.00° | 45.00° | 90.00° |
|---------------|--------|--------|--------|
| 0.00° | 799237 | 799237 | 799237 |
| 45.00° | 5458 | 4793 | 4352 |
| 55.00° | 2211 | 2406 | 2210 |
| 65.00° | 2506 | 2754 | 2873 |
| 75.00° | 2310 | 2122 | 2187 |
| 85.00° | 4446 | 4628 | 5406 |

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 | 1.8 | 2.7 | 2.2 | 3.1 | 3.4 | 1.2 | 2.1 | 1.6 | 2.4 | 2.7 |
| | 3H | 3.8 | 4.6 | 4.2 | 5.0 | 5.4 | 3.2 | 4.0 | 3.6 | 4.4 | 4.8 |
| | 4H | 4.5 | 5.2 | 4.9 | 5.6 | 6.0 | 3.9 | 4.7 | 4.4 | 5.0 | 5.5 |
| | 6H | 5.2 | 5.9 | 5.7 | 6.3 | 6.7 | 4.6 | 5.2 | 5.0 | 5.6 | 6.0 |
| | 8H | 5.6 | 6.2 | 6.1 | 6.6 | 7.1 | 5.1 | 5.7 | 5.6 | 6.1 | 6.6 |
| | 12H | 6.1 | 6.7 | 6.5 | 7.1 | 7.5 | 5.8 | 6.4 | 6.3 | 6.8 | 7.3 |
| 4H | 2H | 2.4 | 3.1 | 2.9 | 3.5 | 3.9 | 1.8 | 2.5 | 2.2 | 2.9 | 3.3 |
| | 3H | 4.6 | 5.2 | 5.1 | 5.7 | 6.1 | 4.0 | 4.6 | 4.5 | 5.0 | 5.5 |
| | 4H | 5.4 | 6.0 | 5.9 | 6.4 | 6.9 | 4.8 | 5.4 | 5.3 | 5.8 | 6.3 |
| | 6H | 6.3 | 6.8 | 6.8 | 7.2 | 7.7 | 5.6 | 6.1 | 6.1 | 6.5 | 7.0 |
| | 8H | 6.8 | 7.2 | 7.3 | 7.7 | 8.2 | 6.3 | 6.7 | 6.8 | 7.2 | 7.7 |
| | 12H | 7.4 | 7.7 | 7.9 | 8.3 | 8.8 | 7.1 | 7.5 | 7.6 | 8.0 | 8.5 |
| 8H | 4H | 5.7 | 6.1 | 6.2 | 6.6 | 7.1 | 5.1 | 5.5 | 5.6 | 6.0 | 6.5 |
| | 6H | 6.8 | 7.1 | 7.3 | 7.6 | 8.1 | 6.2 | 6.5 | 6.7 | 7.0 | 7.5 |
| | 8H | 7.5 | 7.7 | 8.0 | 8.3 | 8.8 | 7.0 | 7.3 | 7.6 | 7.8 | 8.4 |
| | 12H | 8.4 | 8.6 | 8.9 | 9.1 | 9.7 | 8.1 | 8.4 | 8.7 | 8.9 | 9.5 |
| 12H | 4H | 5.7 | 6.1 | 6.2 | 6.6 | 7.1 | 5.2 | 5.5 | 5.7 | 6.0 | 6.5 |
| | 6H | 6.9 | 7.2 | 7.4 | 7.7 | 8.2 | 6.3 | 6.6 | 6.9 | 7.1 | 7.7 |
| | 8H | 7.7 | 7.9 | 8.2 | 8.5 | 9.1 | 7.3 | 7.6 | 7.9 | 8.1 | 8.7 |

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0