

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P735906

Luminaire Tested: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

Test Information

Test Method: LM-79-2024
Report Number: P735906
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-143-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/24/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S1005D950-X4F0-XX-UDD-W-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

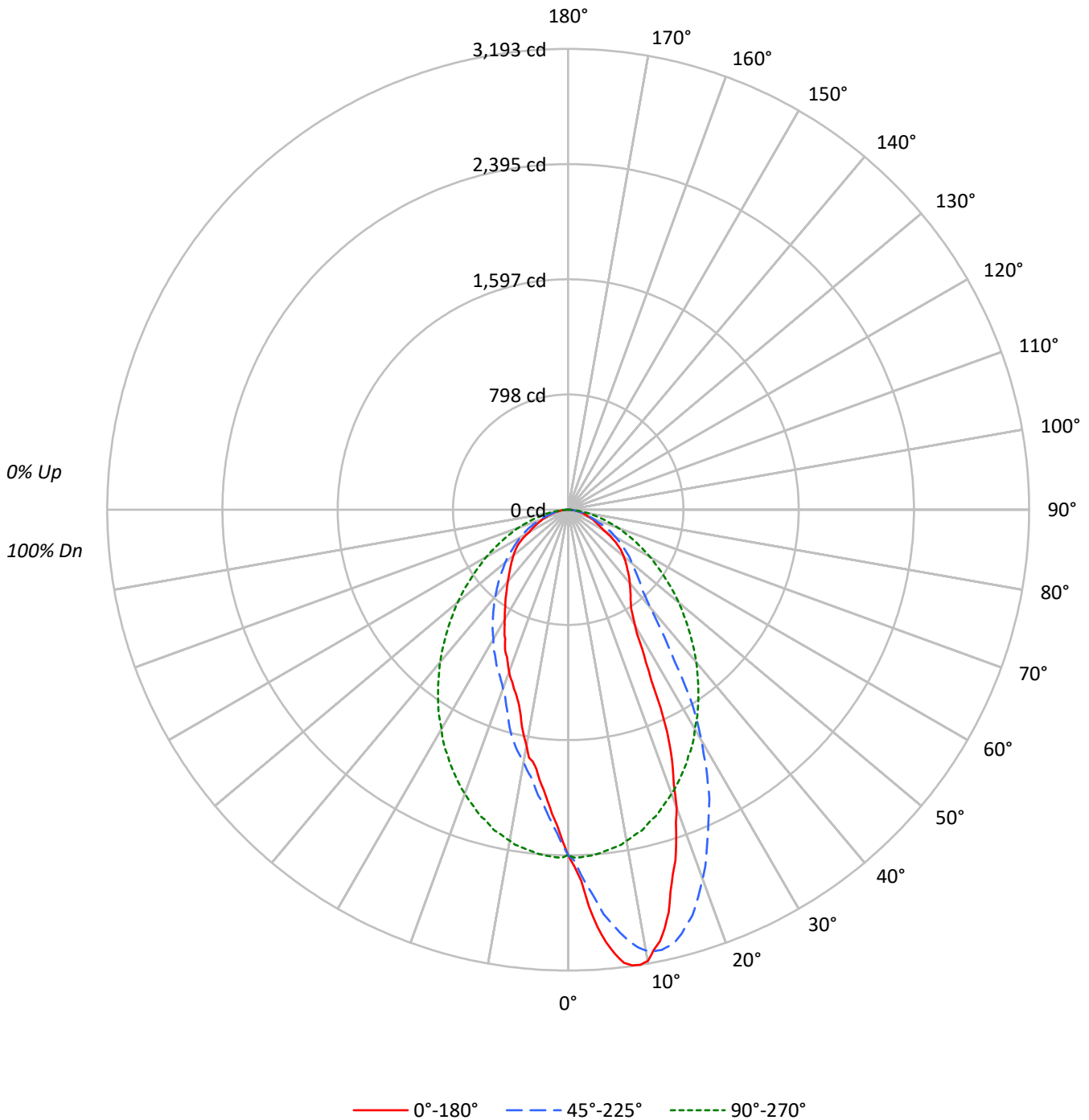
Lumens per Lamp: N/A
Luminaire Lumens: 4099.7 lumens
Efficiency: N/A
Efficacy: 98.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1
Luminous Opening: Rectangular (W 4' x L: 0.14' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P735906

CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

Luminous Intensity Polar Plot



TEST NUMBER: P735906

CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF | 20 | | | | | 20 | | | | | 20 | | | | | 20 | | | | | 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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | 100 | | | |
| 1 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 92 | 91 | 89 | | | | | 87 | | | | |
| 2 | 102 | 95 | 89 | 84 | 99 | 93 | 87 | 83 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | | | | | 75 | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 83 | 77 | 71 | 80 | 75 | 70 | 78 | 73 | 69 | 75 | 71 | 68 | | | | | 66 | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | | | | | 58 | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | | | | | 52 | | | | |
| 6 | 75 | 63 | 55 | 50 | 74 | 63 | 55 | 49 | 61 | 54 | 49 | 59 | 53 | 49 | 58 | 52 | 48 | | | | | 46 | | | | |
| 7 | 71 | 58 | 50 | 45 | 69 | 57 | 50 | 45 | 56 | 49 | 44 | 55 | 49 | 44 | 53 | 48 | 44 | | | | | 42 | | | | |
| 8 | 66 | 54 | 46 | 41 | 65 | 53 | 46 | 41 | 52 | 45 | 40 | 51 | 45 | 40 | 50 | 44 | 40 | | | | | 38 | | | | |
| 9 | 62 | 50 | 42 | 37 | 61 | 49 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 37 | 46 | 41 | 37 | | | | | 35 | | | | |
| 10 | 59 | 46 | 39 | 34 | 57 | 46 | 39 | 34 | 45 | 39 | 34 | 44 | 38 | 34 | 43 | 38 | 34 | | | | | 32 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|-------|-------|
| 0° | 45991 | 45991 | 45991 | 45991 | 45991 |
| 5° | 58019 | 54272 | 46166 | 39226 | 37559 |
| 10° | 61977 | 60515 | 45465 | 34708 | 32435 |
| 15° | 54512 | 60496 | 44262 | 31121 | 27027 |
| 20° | 44939 | 55680 | 42849 | 27017 | 24456 |
| 25° | 32039 | 48883 | 41134 | 25022 | 21999 |
| 30° | 20501 | 41003 | 38927 | 22961 | 19543 |
| 35° | 17657 | 30216 | 36901 | 21304 | 17725 |
| 40° | 16643 | 22093 | 34621 | 19712 | 16282 |
| 45° | 15723 | 18930 | 32187 | 18264 | 15369 |
| 50° | 14972 | 17251 | 29900 | 16994 | 14799 |
| 55° | 13740 | 15958 | 27338 | 15623 | 14272 |
| 60° | 10841 | 14547 | 25111 | 14658 | 12059 |
| 65° | 9815 | 13021 | 22773 | 13613 | 10993 |
| 70° | 9054 | 10509 | 20698 | 11723 | 10105 |
| 75° | 8444 | 9513 | 18061 | 10471 | 9513 |
| 80° | 7804 | 8601 | 15286 | 9398 | 8601 |
| 85° | 6991 | 7609 | 11733 | 8248 | 7609 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 45056 cd/sqm



TEST NUMBER: P735906

CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 232.0 | 5.7 |
| 10°-20° | 623.5 | 15.2 |
| 20°-30° | 782.1 | 19.1 |
| 30°-40° | 745.2 | 18.2 |
| 40°-50° | 657.4 | 16.0 |
| 50°-60° | 517.2 | 12.6 |
| 60°-70° | 330.0 | 8.0 |
| 70°-80° | 167.7 | 4.1 |
| 80°-90° | 44.5 | 1.1 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1637.7 | 39.9 |
| 0°-40° | 2382.9 | 58.1 |
| 0°-60° | 3557.5 | 86.8 |
| 0°-90° | 4099.7 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4099.7 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 2393 | 2393 | 2393 | 2393 | 2393 | |
| 5° | 3007 | 2813 | 2393 | 2033 | 1947 | 292 |
| 15° | 2739 | 3040 | 2224 | 1564 | 1358 | 759 |
| 25° | 1511 | 2305 | 1940 | 1180 | 1037 | 681 |
| 35° | 752 | 1288 | 1573 | 908 | 755 | 478 |
| 45° | 578 | 696 | 1184 | 672 | 565 | 448 |
| 55° | 410 | 476 | 816 | 466 | 426 | 360 |
| 65° | 216 | 286 | 501 | 299 | 242 | 216 |
| 75° | 114 | 128 | 243 | 141 | 128 | 121 |
| 85° | 32 | 34 | 53 | 37 | 34 | 36 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P735906

CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2392.7 | 2392.7 | 2392.7 | 2392.7 | 2392.7 | 2392.7 | 2392.7 | 2392.7 | 2392.7 |
| 1° | 2473.2 | 2484.7 | 2431.5 | 2437.3 | 2411.4 | 2365.3 | 2320.7 | 2325.0 | 2293.4 |
| 2° | 2572.5 | 2602.7 | 2529.3 | 2484.7 | 2409.9 | 2329.4 | 2240.2 | 2228.6 | 2189.8 |
| 3° | 2752.4 | 2738.0 | 2617.1 | 2526.5 | 2404.2 | 2283.3 | 2171.1 | 2145.2 | 2112.1 |
| 4° | 2897.7 | 2854.5 | 2706.3 | 2579.7 | 2401.3 | 2230.1 | 2103.5 | 2058.9 | 2025.8 |
| 5° | 3007.0 | 2952.3 | 2812.8 | 2620.0 | 2392.7 | 2199.9 | 2033.0 | 1982.6 | 1946.6 |
| 6° | 3094.8 | 3053.1 | 2881.8 | 2657.4 | 2381.2 | 2155.3 | 1991.3 | 1923.6 | 1886.2 |
| 7° | 3162.4 | 3127.9 | 2952.3 | 2707.8 | 2371.1 | 2110.7 | 1925.1 | 1854.6 | 1810.0 |
| 8° | 3188.3 | 3172.5 | 3017.1 | 2743.7 | 2359.6 | 2079.0 | 1866.1 | 1802.8 | 1762.5 |
| 9° | 3192.6 | 3194.1 | 3068.9 | 2778.3 | 2349.5 | 2021.5 | 1824.4 | 1759.6 | 1738.0 |
| 10° | 3175.4 | 3188.3 | 3100.5 | 2817.1 | 2329.4 | 1992.7 | 1778.3 | 1716.4 | 1661.8 |
| 11° | 3107.7 | 3165.3 | 3116.4 | 2843.0 | 2312.1 | 1946.6 | 1738.0 | 1657.5 | 1602.8 |
| 12° | 3057.4 | 3112.0 | 3117.8 | 2876.1 | 2292.0 | 1925.1 | 1703.5 | 1595.6 | 1538.0 |
| 13° | 2973.9 | 3031.5 | 3103.4 | 2884.7 | 2280.4 | 1871.8 | 1660.3 | 1532.3 | 1461.8 |
| 14° | 2874.7 | 2966.7 | 3080.4 | 2903.4 | 2251.7 | 1825.8 | 1617.2 | 1443.1 | 1401.4 |
| 15° | 2739.4 | 2870.3 | 3040.1 | 2910.6 | 2224.3 | 1794.1 | 1563.9 | 1398.5 | 1358.2 |
| 16° | 2627.2 | 2775.4 | 2985.4 | 2910.6 | 2207.1 | 1751.0 | 1506.4 | 1359.6 | 1319.3 |
| 17° | 2542.3 | 2663.2 | 2940.8 | 2912.1 | 2178.3 | 1720.8 | 1448.8 | 1323.7 | 1292.0 |
| 18° | 2422.9 | 2558.1 | 2870.3 | 2906.3 | 2148.1 | 1684.8 | 1399.9 | 1293.4 | 1254.6 |
| 19° | 2290.5 | 2451.7 | 2795.5 | 2896.2 | 2122.2 | 1647.4 | 1348.1 | 1261.8 | 1228.7 |
| 20° | 2197.0 | 2345.2 | 2722.1 | 2880.4 | 2094.8 | 1622.9 | 1320.8 | 1225.8 | 1195.6 |
| 21° | 2040.2 | 2221.5 | 2648.8 | 2858.8 | 2066.1 | 1581.2 | 1283.4 | 1194.2 | 1161.1 |
| 22.5° | 1880.5 | 2047.4 | 2513.5 | 2822.9 | 2018.6 | 1529.4 | 1241.7 | 1155.3 | 1106.4 |
| 23° | 1818.6 | 2005.6 | 2471.8 | 2812.8 | 2002.8 | 1516.5 | 1228.7 | 1138.1 | 1094.9 |
| 24° | 1686.2 | 1880.5 | 2385.5 | 2781.1 | 1968.2 | 1473.3 | 1204.2 | 1103.5 | 1073.3 |
| 25° | 1510.7 | 1774.0 | 2304.9 | 2748.0 | 1939.5 | 1441.6 | 1179.8 | 1076.2 | 1037.3 |
| 26° | 1312.2 | 1628.7 | 2231.5 | 2707.8 | 1899.2 | 1398.5 | 1146.7 | 1050.3 | 995.6 |
| 27° | 1189.9 | 1503.5 | 2132.2 | 2664.6 | 1870.4 | 1366.8 | 1119.4 | 1011.5 | 972.6 |
| 28° | 1092.0 | 1306.4 | 2043.0 | 2622.9 | 1835.9 | 1328.0 | 1100.7 | 984.1 | 938.1 |
| 29° | 985.6 | 1198.5 | 1938.0 | 2566.8 | 1798.5 | 1283.4 | 1070.4 | 956.8 | 907.9 |
| 30° | 923.7 | 1083.4 | 1847.4 | 2525.0 | 1753.9 | 1253.2 | 1034.5 | 929.4 | 880.5 |
| 32.5° | 811.5 | 893.5 | 1601.3 | 2405.6 | 1669.0 | 1166.8 | 975.5 | 854.6 | 812.9 |
| 35° | 752.5 | 795.6 | 1287.7 | 2266.1 | 1572.6 | 1094.9 | 907.9 | 792.8 | 755.4 |
| 37.5° | 707.9 | 733.8 | 1063.2 | 2116.4 | 1474.7 | 1031.6 | 846.0 | 735.2 | 699.2 |
| 40° | 663.3 | 683.4 | 880.5 | 1972.5 | 1379.8 | 969.7 | 785.6 | 676.2 | 648.9 |
| 42.5° | 623.0 | 638.8 | 764.0 | 1830.1 | 1281.9 | 906.4 | 726.6 | 630.2 | 605.7 |
| 45° | 578.4 | 592.8 | 696.4 | 1657.5 | 1184.1 | 841.7 | 671.9 | 579.8 | 565.4 |
| 47.5° | 541.0 | 551.0 | 631.6 | 1503.5 | 1087.7 | 779.8 | 615.8 | 539.5 | 529.5 |
| 50° | 500.7 | 513.6 | 576.9 | 1332.3 | 999.9 | 719.4 | 568.3 | 503.6 | 494.9 |
| 52.5° | 461.8 | 467.6 | 530.9 | 1161.1 | 907.9 | 660.4 | 518.0 | 467.6 | 461.8 |
| 55° | 410.0 | 433.1 | 476.2 | 985.6 | 815.8 | 605.7 | 466.2 | 430.2 | 425.9 |
| 57.5° | 351.1 | 381.3 | 427.3 | 827.3 | 729.5 | 545.3 | 424.4 | 395.7 | 377.0 |
| 60° | 282.0 | 318.0 | 378.4 | 687.7 | 653.2 | 490.6 | 381.3 | 336.7 | 313.7 |
| 62.5° | 247.5 | 259.0 | 333.8 | 575.5 | 575.5 | 438.8 | 338.1 | 289.2 | 279.1 |
| 65° | 215.8 | 224.4 | 286.3 | 476.2 | 500.7 | 381.3 | 299.3 | 250.3 | 241.7 |



TEST NUMBER: P735906

CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|
| 67.5° | 188.5 | 195.7 | 218.7 | 397.1 | 431.6 | 332.4 | 247.5 | 218.7 | 208.6 |
| 70° | 161.1 | 166.9 | 187.0 | 323.7 | 368.3 | 283.4 | 208.6 | 187.0 | 179.8 |
| 72.5° | 136.7 | 142.4 | 153.9 | 243.2 | 302.1 | 236.0 | 175.5 | 159.7 | 153.9 |
| 75° | 113.7 | 116.5 | 128.1 | 181.3 | 243.2 | 188.5 | 141.0 | 130.9 | 128.1 |
| 77.5° | 92.1 | 93.5 | 100.7 | 129.5 | 188.5 | 143.9 | 113.7 | 105.0 | 103.6 |
| 80° | 70.5 | 71.9 | 77.7 | 93.5 | 138.1 | 103.6 | 84.9 | 80.6 | 77.7 |
| 82.5° | 50.4 | 51.8 | 54.7 | 63.3 | 93.5 | 70.5 | 60.4 | 59.0 | 54.7 |
| 85° | 31.7 | 31.7 | 34.5 | 38.8 | 53.2 | 40.3 | 37.4 | 36.0 | 34.5 |
| 87.5° | 14.4 | 14.4 | 15.8 | 15.8 | 24.5 | 17.3 | 17.3 | 15.8 | 14.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P735906
 CATALOG NUMBER: S122RDRP-S1005D950-X4F0-XX-UDD-W-W

CIE UGR TABLE:

| Reflectances: | | | | | | | | | | | |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane | | 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 | | | | |
| X=2H | Y=2H | 19.74 | 21.20 | 20.10 | 21.52 | 21.83 | 22.43 | 23.90 | 22.80 | 24.21 | 24.53 |
| | 3H | 20.85 | 22.17 | 21.23 | 22.49 | 22.86 | 23.87 | 25.19 | 24.25 | 25.51 | 25.88 |
| | 4H | 21.30 | 22.53 | 21.70 | 22.88 | 23.26 | 24.37 | 25.61 | 24.78 | 25.95 | 26.33 |
| | 6H | 21.64 | 22.77 | 22.05 | 23.14 | 23.53 | 24.70 | 25.84 | 25.11 | 26.21 | 26.60 |
| | 8H | 21.75 | 22.83 | 22.18 | 23.22 | 23.63 | 24.79 | 25.87 | 25.22 | 26.26 | 26.66 |
| | 12H | 21.83 | 22.86 | 22.26 | 23.24 | 23.67 | 24.84 | 25.87 | 25.27 | 26.25 | 26.68 |
| 4H | 2H | 20.91 | 22.14 | 21.31 | 22.49 | 22.87 | 22.88 | 24.12 | 23.29 | 24.46 | 24.84 |
| | 3H | 22.13 | 23.15 | 22.54 | 23.55 | 23.95 | 24.54 | 25.56 | 24.95 | 25.96 | 26.36 |
| | 4H | 22.61 | 23.53 | 23.05 | 23.95 | 24.39 | 25.18 | 26.10 | 25.61 | 26.51 | 26.95 |
| | 6H | 23.01 | 23.81 | 23.47 | 24.25 | 24.71 | 25.64 | 26.43 | 26.09 | 26.88 | 27.34 |
| | 8H | 23.15 | 23.89 | 23.61 | 24.34 | 24.81 | 25.76 | 26.51 | 26.23 | 26.95 | 27.42 |
| | 12H | 23.25 | 23.91 | 23.73 | 24.39 | 24.86 | 25.84 | 26.51 | 26.33 | 26.99 | 27.46 |
| 8H | 4H | 23.01 | 23.76 | 23.48 | 24.20 | 24.67 | 25.29 | 26.04 | 25.76 | 26.48 | 26.95 |
| | 6H | 23.51 | 24.12 | 24.00 | 24.61 | 25.09 | 25.86 | 26.47 | 26.35 | 26.96 | 27.44 |
| | 8H | 23.70 | 24.24 | 24.21 | 24.76 | 25.24 | 26.05 | 26.60 | 26.57 | 27.12 | 27.60 |
| | 12H | 23.85 | 24.34 | 24.36 | 24.83 | 25.40 | 26.20 | 26.69 | 26.71 | 27.18 | 27.75 |
| 12H | 4H | 23.06 | 23.72 | 23.54 | 24.20 | 24.68 | 25.28 | 25.95 | 25.77 | 26.42 | 26.90 |
| | 6H | 23.57 | 24.13 | 24.09 | 24.64 | 25.13 | 25.85 | 26.40 | 26.37 | 26.91 | 27.40 |
| | 8H | 23.82 | 24.30 | 24.33 | 24.79 | 25.36 | 26.10 | 26.58 | 26.61 | 27.08 | 27.64 |