

LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P832453

Luminaire Tested: S123RDP-S1165D927-4F0-1E-UDD-G

Issue Date: 05/03/2024

Tested By:

Approved By:



NVLAP Lab Code: 200050-0

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Test Information

Test Method: LM-79-2019
 Report Number: P832453
 Test Lab: INNOVATION CENTER
 Issue Date: 05/03/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: NEO-RAY
 Catalog Number: S123RDP-S1165D927-4F0-1E-UDD-G
 Description: DEFINE 3 DIRECT PENDANT LED LUMINAIRE
 DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC

Light Source: -
 Ballast/Driver: -

Summary

Lumens per Lamp: N/A
 Luminaire Lumens: 3936.3 lumens
 Efficiency: N/A
 Efficacy: 93.3 lumens/watt
 Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
 Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
 CIE Type: Direct

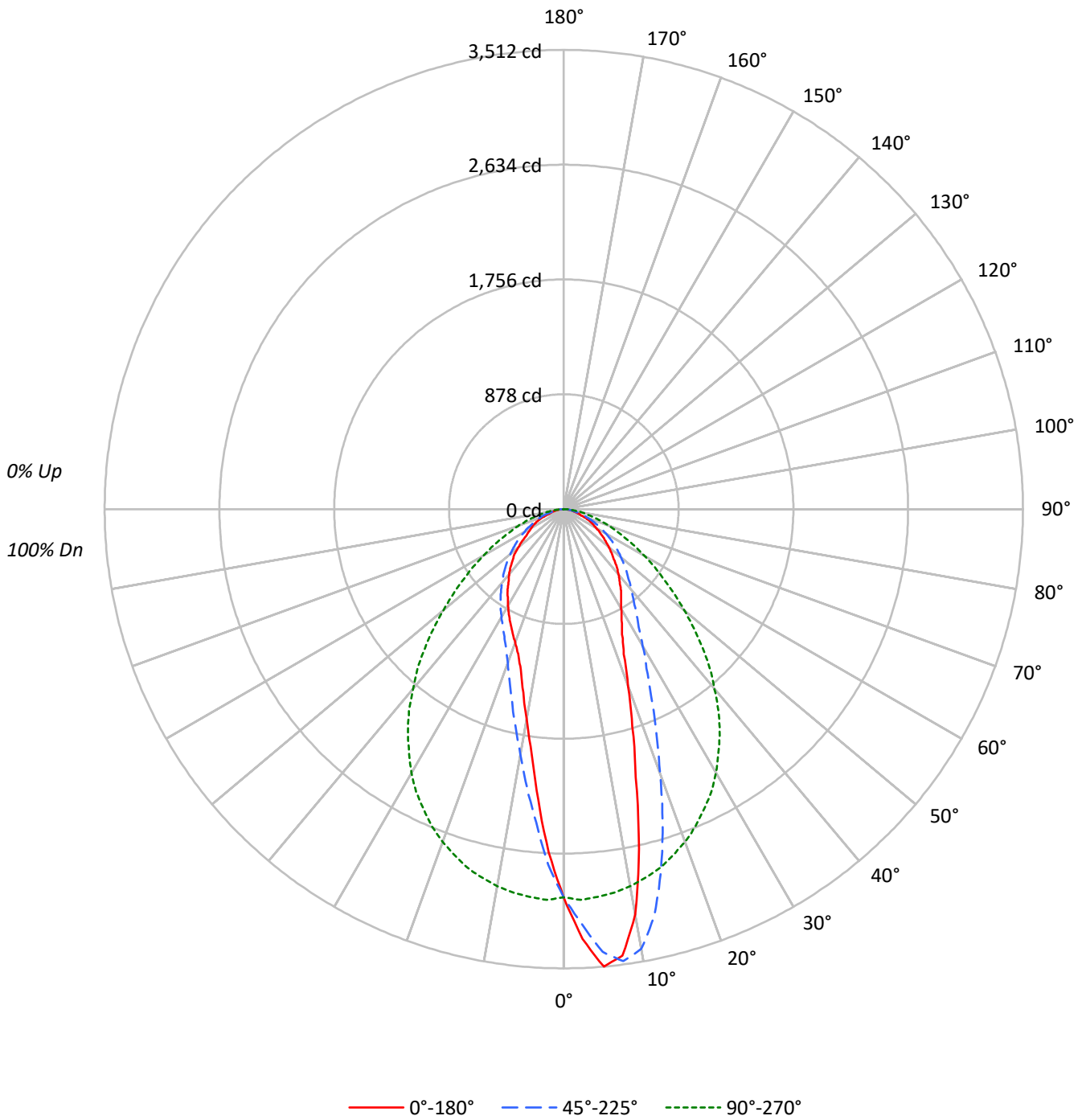
Input Watts (W): 42.2
 Input Voltage (V): 120
 Input Current (Ain): NR
 Voltage Rise (V): NR
 Power Factor: NR
 Total Harmonic Distortion (THDi): NR
 Frequency (hertz): 60
 Stabilization Time: NR
 Operation Time: NR
 Ambient Temperature (°C): NR
 Test Distance: 24 FT

| Measurement and Test Equipment | | | |
|--------------------------------|-----------------------|------------------|----------------------|
| Instrument | Identification Number | Calibration Date | Calibration Due Date |
| Photometer | P3 | 10/30/2015 | 4/30/2016 |
| Power Meter | IN0214 | 1/12/2016 | 1/12/2017 |
| AC Power Source | IN0062 | 1/12/2016 | 1/12/2017 |
| DC Power Supply | -- | -- | -- |
| Room Thermometer | IN0145 | 1/13/2016 | 1/13/2017 |

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Luminous Intensity Polar Plot



TEST NUMBER: P832453

CATALOG NUMBER: S123RDP-S1165D927-4F0-1E-UDD-G

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 | 0 | |
| RCR | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 69 | 67 | | | | |
| 4 | 88 | 77 | 69 | 64 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 | | | | |
| 5 | 82 | 70 | 62 | 56 | 80 | 69 | 62 | 56 | 67 | 61 | 56 | 65 | 60 | 55 | 63 | 58 | 54 | 53 | | | | |
| 6 | 76 | 64 | 56 | 51 | 74 | 63 | 56 | 50 | 62 | 55 | 50 | 60 | 54 | 50 | 59 | 53 | 49 | 47 | | | | |
| 7 | 71 | 59 | 51 | 46 | 70 | 58 | 51 | 46 | 57 | 50 | 45 | 56 | 50 | 45 | 54 | 49 | 45 | 43 | | | | |
| 8 | 67 | 55 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | | |
| 9 | 63 | 51 | 43 | 38 | 62 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | | |
| 10 | 60 | 47 | 40 | 35 | 58 | 47 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 33 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|-------|-------|
| 0° | 31957 | 31957 | 31957 | 31957 | 31957 |
| 5° | 37945 | 36735 | 32158 | 25996 | 24135 |
| 10° | 34379 | 37313 | 31997 | 20828 | 17868 |
| 15° | 23670 | 31992 | 31660 | 17024 | 14135 |
| 20° | 16467 | 24631 | 31024 | 14355 | 12424 |
| 25° | 12549 | 18772 | 30100 | 12758 | 11450 |
| 30° | 10924 | 15008 | 28942 | 11846 | 10606 |
| 35° | 10029 | 12661 | 27304 | 11077 | 9837 |
| 40° | 9150 | 11306 | 25160 | 10322 | 9133 |
| 45° | 8264 | 10339 | 22847 | 9608 | 8432 |
| 50° | 7502 | 9540 | 20118 | 8907 | 7562 |
| 55° | 6784 | 8760 | 17498 | 8223 | 6488 |
| 60° | 6079 | 7965 | 15199 | 7468 | 6131 |
| 65° | 5611 | 7068 | 13084 | 6711 | 5797 |
| 70° | 4560 | 6112 | 11415 | 6071 | 4711 |
| 75° | 4001 | 4862 | 9669 | 5036 | 4151 |
| 80° | 3620 | 4110 | 7922 | 4228 | 3924 |
| 85° | 3310 | 3606 | 6015 | 3829 | 3606 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 24108 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 270.6 | 6.9 |
| 10°-20° | 626.2 | 15.9 |
| 20°-30° | 718.5 | 18.3 |
| 30°-40° | 708.2 | 18.0 |
| 40°-50° | 624.5 | 15.9 |
| 50°-60° | 480.5 | 12.2 |
| 60°-70° | 315.9 | 8.0 |
| 70°-80° | 153.4 | 3.9 |
| 80°-90° | 38.7 | 1.0 |
| 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° | 1615.3 | 41.0 |
| 0°-40° | 2323.4 | 59.0 |
| 0°-60° | 3428.4 | 87.1 |
| 0°-90° | 3936.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3936.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 2969 | 2969 | 2969 | 2969 | 2969 | |
| 5° | 3512 | 3400 | 2976 | 2406 | 2234 | 321 |
| 15° | 2124 | 2871 | 2841 | 1528 | 1268 | 600 |
| 25° | 1057 | 1581 | 2534 | 1074 | 964 | 499 |
| 35° | 763 | 964 | 2078 | 843 | 749 | 476 |
| 45° | 543 | 679 | 1501 | 631 | 554 | 421 |
| 55° | 362 | 467 | 932 | 438 | 346 | 324 |
| 65° | 220 | 278 | 514 | 264 | 228 | 216 |
| 75° | 96 | 117 | 232 | 121 | 100 | 104 |
| 85° | 27 | 29 | 49 | 31 | 29 | 30 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 |
| 2.5° | 3290.3 | 3279.9 | 3269.6 | 3266.5 | 3263.5 | 3253.8 | 3244.0 | 3222.1 | 3200.2 | 3177.7 | 3155.2 |
| 5° | 3511.8 | 3513.0 | 3514.3 | 3511.2 | 3508.2 | 3495.4 | 3482.6 | 3455.8 | 3429.0 | 3399.8 | 3370.6 |
| 7.5° | 3443.7 | 3463.1 | 3482.6 | 3486.3 | 3489.9 | 3499.6 | 3509.4 | 3503.3 | 3497.2 | 3486.3 | 3475.3 |
| 10° | 3145.4 | 3144.2 | 3143.0 | 3164.9 | 3186.8 | 3251.9 | 3317.1 | 3350.5 | 3384.0 | 3413.8 | 3443.7 |
| 12.5° | 2658.5 | 2660.3 | 2662.2 | 2734.0 | 2805.8 | 2867.3 | 2928.7 | 3014.0 | 3099.2 | 3191.1 | 3283.0 |
| 15° | 2124.1 | 2154.0 | 2183.8 | 2247.7 | 2311.6 | 2404.1 | 2496.6 | 2611.0 | 2725.5 | 2870.9 | 3016.4 |
| 17.5° | 1744.3 | 1757.1 | 1769.9 | 1831.4 | 1892.9 | 1980.5 | 2068.1 | 2197.8 | 2327.4 | 2514.9 | 2702.3 |
| 20° | 1437.6 | 1449.2 | 1460.7 | 1505.2 | 1549.6 | 1633.6 | 1717.6 | 1841.1 | 1964.7 | 2150.3 | 2335.9 |
| 22.5° | 1200.2 | 1222.7 | 1245.3 | 1275.1 | 1304.9 | 1365.8 | 1426.6 | 1552.6 | 1678.6 | 1847.8 | 2017.0 |
| 25° | 1056.6 | 1066.9 | 1077.3 | 1102.8 | 1128.4 | 1186.8 | 1245.3 | 1328.6 | 1412.0 | 1580.6 | 1749.2 |
| 27.5° | 959.2 | 962.3 | 965.3 | 984.2 | 1003.0 | 1040.8 | 1078.5 | 1155.8 | 1233.1 | 1371.9 | 1510.6 |
| 30° | 878.9 | 884.3 | 889.8 | 904.4 | 919.0 | 946.4 | 973.8 | 1028.6 | 1083.4 | 1207.5 | 1331.7 |
| 32.5° | 816.8 | 819.8 | 822.9 | 835.0 | 847.2 | 867.3 | 887.4 | 930.6 | 973.8 | 1068.8 | 1163.7 |
| 35° | 763.2 | 763.8 | 764.4 | 773.6 | 782.7 | 802.2 | 821.7 | 857.6 | 893.5 | 963.5 | 1033.5 |
| 37.5° | 702.4 | 706.6 | 710.9 | 717.6 | 724.3 | 741.3 | 758.4 | 787.6 | 816.8 | 874.6 | 932.4 |
| 40° | 651.2 | 654.9 | 658.5 | 666.5 | 674.4 | 687.8 | 701.1 | 727.9 | 754.7 | 804.6 | 854.5 |
| 42.5° | 600.1 | 602.5 | 605.0 | 612.9 | 620.8 | 637.2 | 653.7 | 675.0 | 696.3 | 737.7 | 779.1 |
| 45° | 542.9 | 549.0 | 555.1 | 563.6 | 572.1 | 586.1 | 600.1 | 622.0 | 643.9 | 679.2 | 714.5 |
| 47.5° | 495.4 | 498.5 | 501.5 | 508.8 | 516.1 | 533.2 | 550.2 | 569.7 | 589.2 | 622.0 | 654.9 |
| 50° | 448.0 | 449.2 | 450.4 | 457.1 | 463.8 | 479.0 | 494.2 | 516.7 | 539.3 | 569.7 | 600.1 |
| 52.5° | 402.9 | 406.0 | 409.0 | 415.7 | 422.4 | 432.7 | 443.1 | 466.2 | 489.3 | 519.2 | 549.0 |
| 55° | 361.5 | 363.4 | 365.2 | 370.0 | 374.9 | 387.1 | 399.3 | 419.3 | 439.4 | 466.8 | 494.2 |
| 57.5° | 322.6 | 325.0 | 327.4 | 331.1 | 334.7 | 345.7 | 356.7 | 374.3 | 392.0 | 419.3 | 446.7 |
| 60° | 282.4 | 285.4 | 288.5 | 292.8 | 297.0 | 305.5 | 314.1 | 329.9 | 345.7 | 370.0 | 394.4 |
| 62.5° | 253.2 | 253.8 | 254.4 | 258.1 | 261.7 | 267.8 | 273.9 | 286.7 | 299.4 | 323.8 | 348.1 |
| 65° | 220.3 | 222.2 | 224.0 | 225.8 | 227.6 | 232.5 | 237.4 | 248.3 | 259.3 | 277.5 | 295.8 |
| 67.5° | 186.2 | 188.1 | 189.9 | 192.9 | 196.0 | 200.2 | 204.5 | 211.8 | 219.1 | 236.2 | 253.2 |
| 70° | 144.9 | 144.9 | 144.9 | 149.7 | 154.6 | 161.9 | 169.2 | 174.7 | 180.2 | 194.2 | 208.2 |
| 72.5° | 118.1 | 118.7 | 119.3 | 119.9 | 120.5 | 124.8 | 129.0 | 138.2 | 147.3 | 155.8 | 164.3 |
| 75° | 96.2 | 96.8 | 97.4 | 98.0 | 98.6 | 99.8 | 101.0 | 104.1 | 107.1 | 116.9 | 126.6 |
| 77.5° | 76.7 | 77.3 | 77.9 | 78.5 | 79.1 | 80.3 | 81.6 | 82.8 | 84.0 | 87.6 | 91.3 |
| 80° | 58.4 | 59.0 | 59.6 | 60.3 | 60.9 | 61.5 | 62.1 | 63.3 | 64.5 | 66.3 | 68.2 |
| 82.5° | 42.6 | 42.6 | 42.6 | 42.6 | 42.6 | 43.8 | 45.0 | 45.0 | 45.0 | 46.3 | 47.5 |
| 85° | 26.8 | 26.8 | 26.8 | 27.4 | 28.0 | 28.0 | 28.0 | 28.6 | 29.2 | 29.2 | 29.2 |
| 87.5° | 12.2 | 11.6 | 11.0 | 11.6 | 12.2 | 12.2 | 12.2 | 12.8 | 13.4 | 13.4 | 13.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 |
| 2.5° | 3152.1 | 3149.1 | 3119.9 | 3090.6 | 3062.0 | 3033.4 | 3012.1 | 2990.8 | 2954.9 | 2919.0 | 2896.5 |
| 5° | 3347.5 | 3324.4 | 3278.1 | 3231.8 | 3162.5 | 3093.1 | 3034.7 | 2976.2 | 2902.0 | 2827.7 | 2765.6 |
| 7.5° | 3456.4 | 3437.6 | 3381.6 | 3325.6 | 3233.7 | 3141.8 | 3050.5 | 2959.2 | 2849.6 | 2740.1 | 2646.3 |
| 10° | 3459.5 | 3475.3 | 3429.0 | 3382.8 | 3279.3 | 3175.9 | 3051.7 | 2927.5 | 2780.2 | 2633.0 | 2511.8 |
| 12.5° | 3351.1 | 3419.3 | 3409.6 | 3399.8 | 3294.5 | 3189.2 | 3038.3 | 2887.4 | 2706.6 | 2525.8 | 2374.3 |
| 15° | 3148.5 | 3280.5 | 3319.5 | 3358.4 | 3271.4 | 3184.4 | 3012.7 | 2841.1 | 2628.7 | 2416.3 | 2242.2 |
| 17.5° | 2887.4 | 3072.4 | 3175.2 | 3278.1 | 3214.8 | 3151.5 | 2963.4 | 2775.4 | 2536.2 | 2297.0 | 2107.7 |
| 20° | 2578.2 | 2820.4 | 2981.7 | 3143.0 | 3119.9 | 3096.7 | 2902.6 | 2708.4 | 2450.4 | 2192.3 | 1987.2 |
| 22.5° | 2272.6 | 2528.3 | 2751.0 | 2973.8 | 2997.5 | 3021.3 | 2825.3 | 2629.3 | 2346.9 | 2064.5 | 1855.7 |
| 25° | 2009.1 | 2269.0 | 2534.4 | 2799.7 | 2853.3 | 2906.8 | 2720.6 | 2534.4 | 2241.6 | 1948.8 | 1741.3 |
| 27.5° | 1757.7 | 2004.8 | 2297.0 | 2589.1 | 2686.5 | 2783.9 | 2613.5 | 2443.1 | 2138.1 | 1833.2 | 1626.3 |
| 30° | 1552.6 | 1773.6 | 2071.8 | 2370.0 | 2505.7 | 2641.5 | 2485.1 | 2328.6 | 2026.1 | 1723.7 | 1521.0 |
| 32.5° | 1361.5 | 1559.3 | 1858.8 | 2158.2 | 2315.9 | 2473.5 | 2338.4 | 2203.3 | 1912.3 | 1621.4 | 1421.2 |
| 35° | 1210.6 | 1387.7 | 1667.1 | 1946.4 | 2122.9 | 2299.4 | 2188.6 | 2077.9 | 1793.6 | 1509.4 | 1320.1 |
| 37.5° | 1080.9 | 1229.4 | 1491.8 | 1754.1 | 1941.5 | 2129.0 | 2036.5 | 1944.0 | 1676.8 | 1409.6 | 1230.7 |
| 40° | 973.8 | 1093.1 | 1337.2 | 1581.2 | 1765.0 | 1948.8 | 1869.7 | 1790.6 | 1551.4 | 1312.2 | 1144.8 |
| 42.5° | 881.9 | 984.8 | 1203.9 | 1423.0 | 1591.6 | 1760.2 | 1707.8 | 1655.5 | 1438.8 | 1222.1 | 1066.9 |
| 45° | 801.0 | 887.4 | 1080.3 | 1273.3 | 1428.5 | 1583.7 | 1542.3 | 1500.9 | 1314.0 | 1127.2 | 984.8 |
| 47.5° | 729.1 | 803.4 | 975.6 | 1147.9 | 1287.3 | 1426.6 | 1388.3 | 1350.0 | 1195.4 | 1040.8 | 911.1 |
| 50° | 663.4 | 726.7 | 870.3 | 1014.0 | 1139.4 | 1264.7 | 1233.1 | 1201.4 | 1073.6 | 945.8 | 833.8 |
| 52.5° | 601.3 | 653.7 | 782.7 | 911.7 | 1012.8 | 1113.8 | 1089.5 | 1065.1 | 966.5 | 867.9 | 766.3 |
| 55° | 542.3 | 590.4 | 699.3 | 808.3 | 894.7 | 981.1 | 956.8 | 932.4 | 855.7 | 779.1 | 689.6 |
| 57.5° | 488.7 | 530.7 | 619.0 | 707.2 | 776.0 | 844.8 | 833.2 | 821.7 | 757.8 | 693.8 | 620.2 |
| 60° | 432.1 | 469.9 | 545.9 | 622.0 | 677.4 | 732.8 | 719.4 | 706.0 | 660.4 | 614.7 | 551.4 |
| 62.5° | 381.6 | 415.1 | 476.0 | 536.8 | 581.9 | 626.9 | 617.2 | 607.4 | 572.7 | 538.0 | 485.7 |
| 65° | 328.7 | 361.5 | 410.8 | 460.1 | 495.4 | 530.7 | 522.2 | 513.7 | 487.5 | 461.3 | 419.3 |
| 67.5° | 280.6 | 308.0 | 350.6 | 393.2 | 416.9 | 440.7 | 435.8 | 430.9 | 410.8 | 390.7 | 357.9 |
| 70° | 231.9 | 255.6 | 290.9 | 326.2 | 342.7 | 359.1 | 360.9 | 362.7 | 344.5 | 326.2 | 301.9 |
| 72.5° | 183.2 | 202.1 | 234.9 | 267.8 | 280.6 | 293.4 | 292.8 | 292.1 | 281.2 | 270.2 | 248.3 |
| 75° | 140.6 | 154.6 | 180.2 | 205.7 | 216.7 | 227.6 | 230.1 | 232.5 | 222.2 | 211.8 | 199.6 |
| 77.5° | 101.0 | 110.8 | 130.2 | 149.7 | 161.9 | 174.1 | 175.3 | 176.5 | 171.6 | 166.8 | 155.2 |
| 80° | 71.2 | 74.3 | 86.4 | 98.6 | 111.4 | 124.2 | 126.0 | 127.8 | 122.9 | 118.1 | 110.8 |
| 82.5° | 49.3 | 51.1 | 55.4 | 59.6 | 70.0 | 80.3 | 82.8 | 85.2 | 82.8 | 80.3 | 72.4 |
| 85° | 29.8 | 30.4 | 32.3 | 34.1 | 39.0 | 43.8 | 46.3 | 48.7 | 47.5 | 46.3 | 42.0 |
| 87.5° | 13.4 | 13.4 | 14.0 | 14.6 | 15.8 | 17.0 | 20.1 | 23.1 | 21.3 | 19.5 | 17.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 | 2968.9 |
| 2.5° | 2874.0 | 2839.3 | 2804.6 | 2779.6 | 2754.7 | 2723.6 | 2692.6 | 2691.4 | 2690.2 | 2667.0 | 2643.9 |
| 5° | 2703.6 | 2643.3 | 2583.0 | 2524.0 | 2465.0 | 2405.9 | 2346.9 | 2333.5 | 2320.1 | 2300.0 | 2279.9 |
| 7.5° | 2552.6 | 2456.4 | 2360.3 | 2284.8 | 2209.3 | 2150.3 | 2091.3 | 2051.1 | 2010.9 | 1979.9 | 1948.8 |
| 10° | 2390.7 | 2271.4 | 2152.1 | 2060.8 | 1969.5 | 1905.6 | 1841.7 | 1795.5 | 1749.2 | 1727.3 | 1705.4 |
| 12.5° | 2222.7 | 2093.1 | 1963.5 | 1874.0 | 1784.5 | 1707.8 | 1631.1 | 1589.1 | 1547.1 | 1516.7 | 1486.3 |
| 15° | 2068.1 | 1928.8 | 1789.4 | 1694.4 | 1599.5 | 1527.7 | 1455.9 | 1413.9 | 1371.9 | 1341.4 | 1311.0 |
| 17.5° | 1918.4 | 1777.8 | 1637.2 | 1541.1 | 1444.9 | 1379.8 | 1314.7 | 1273.9 | 1233.1 | 1214.2 | 1195.4 |
| 20° | 1782.1 | 1640.3 | 1498.5 | 1407.8 | 1317.1 | 1253.2 | 1189.3 | 1167.4 | 1145.5 | 1127.8 | 1110.1 |
| 22.5° | 1647.0 | 1510.6 | 1374.3 | 1287.3 | 1200.2 | 1154.0 | 1107.7 | 1090.1 | 1072.4 | 1059.0 | 1045.6 |
| 25° | 1533.8 | 1398.0 | 1262.3 | 1186.2 | 1110.1 | 1074.2 | 1038.3 | 1026.8 | 1015.2 | 1001.8 | 988.4 |
| 27.5° | 1419.3 | 1290.3 | 1161.3 | 1100.4 | 1039.5 | 1010.3 | 981.1 | 966.5 | 951.9 | 940.9 | 930.0 |
| 30° | 1318.3 | 1199.0 | 1079.7 | 1029.2 | 978.7 | 953.1 | 927.6 | 911.7 | 895.9 | 885.6 | 875.2 |
| 32.5° | 1220.9 | 1115.0 | 1009.1 | 965.9 | 922.7 | 897.7 | 872.8 | 857.6 | 842.4 | 830.2 | 818.0 |
| 35° | 1130.8 | 1038.9 | 947.0 | 907.5 | 867.9 | 843.0 | 818.0 | 802.8 | 787.6 | 775.4 | 763.2 |
| 37.5° | 1051.7 | 968.3 | 885.0 | 847.8 | 810.7 | 788.8 | 766.9 | 751.1 | 735.2 | 722.4 | 709.7 |
| 40° | 977.5 | 903.8 | 830.2 | 794.3 | 758.4 | 734.6 | 710.9 | 696.9 | 682.9 | 671.3 | 659.8 |
| 42.5° | 911.7 | 844.2 | 776.6 | 741.3 | 706.0 | 683.5 | 661.0 | 644.5 | 628.1 | 621.4 | 614.7 |
| 45° | 842.4 | 782.7 | 723.1 | 689.0 | 654.9 | 631.2 | 607.4 | 593.4 | 579.4 | 573.3 | 567.2 |
| 47.5° | 781.5 | 726.1 | 670.7 | 637.2 | 603.8 | 582.5 | 561.2 | 550.2 | 539.3 | 530.7 | 522.2 |
| 50° | 721.8 | 668.3 | 614.7 | 582.5 | 550.2 | 531.9 | 513.7 | 500.3 | 486.9 | 480.8 | 474.7 |
| 52.5° | 664.6 | 615.9 | 567.2 | 534.4 | 501.5 | 483.9 | 466.2 | 454.7 | 443.1 | 430.3 | 417.5 |
| 55° | 600.1 | 557.5 | 514.9 | 485.7 | 456.5 | 438.2 | 420.0 | 406.6 | 393.2 | 379.8 | 366.4 |
| 57.5° | 546.6 | 504.6 | 462.6 | 436.4 | 410.2 | 392.6 | 374.9 | 360.3 | 345.7 | 334.7 | 323.8 |
| 60° | 488.1 | 451.6 | 415.1 | 389.5 | 364.0 | 346.9 | 329.9 | 315.9 | 301.9 | 296.4 | 290.9 |
| 62.5° | 433.3 | 399.3 | 365.2 | 342.7 | 320.1 | 303.7 | 287.3 | 278.1 | 269.0 | 265.4 | 261.7 |
| 65° | 377.4 | 348.1 | 318.9 | 298.2 | 277.5 | 263.5 | 249.5 | 245.3 | 241.0 | 238.0 | 234.9 |
| 67.5° | 325.0 | 300.1 | 275.1 | 256.8 | 238.6 | 228.8 | 219.1 | 214.2 | 209.4 | 205.7 | 202.1 |
| 70° | 277.5 | 255.6 | 233.7 | 217.9 | 202.1 | 192.9 | 183.8 | 179.5 | 175.3 | 168.6 | 161.9 |
| 72.5° | 226.4 | 209.4 | 192.3 | 180.2 | 168.0 | 160.1 | 152.2 | 143.6 | 135.1 | 129.0 | 122.9 |
| 75° | 187.5 | 170.4 | 153.4 | 141.8 | 130.2 | 121.1 | 112.0 | 108.9 | 105.9 | 104.1 | 102.3 |
| 77.5° | 143.6 | 129.0 | 114.4 | 105.3 | 96.2 | 91.9 | 87.6 | 85.8 | 84.0 | 83.4 | 82.8 |
| 80° | 103.5 | 91.3 | 79.1 | 74.3 | 69.4 | 68.2 | 66.9 | 65.7 | 64.5 | 63.9 | 63.3 |
| 82.5° | 64.5 | 58.4 | 52.3 | 51.1 | 49.9 | 49.3 | 48.7 | 48.1 | 47.5 | 46.9 | 46.3 |
| 85° | 37.7 | 35.3 | 32.9 | 32.3 | 31.6 | 31.0 | 30.4 | 30.4 | 30.4 | 30.4 | 30.4 |
| 87.5° | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.2 | 14.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

TEST NUMBER: P832453

CATALOG NUMBER: S123RDP-S1165D927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|
| 0° | 2968.9 | 2968.9 | 2968.9 | 2968.9 |
| 2.5° | 2637.8 | 2631.7 | 2629.3 | 2626.9 |
| 5° | 2261.1 | 2242.2 | 2237.9 | 2233.7 |
| 7.5° | 1940.9 | 1933.0 | 1906.9 | 1880.7 |
| 10° | 1681.0 | 1656.7 | 1645.7 | 1634.8 |
| 12.5° | 1463.8 | 1441.2 | 1437.6 | 1433.9 |
| 15° | 1295.2 | 1279.3 | 1273.9 | 1268.4 |
| 17.5° | 1184.4 | 1173.4 | 1166.8 | 1160.1 |
| 20° | 1102.2 | 1094.3 | 1089.5 | 1084.6 |
| 22.5° | 1039.5 | 1033.5 | 1029.8 | 1026.2 |
| 25° | 979.3 | 970.2 | 967.1 | 964.1 |
| 27.5° | 922.1 | 914.2 | 911.1 | 908.1 |
| 30° | 868.5 | 861.8 | 857.6 | 853.3 |
| 32.5° | 810.1 | 802.2 | 799.7 | 797.3 |
| 35° | 758.4 | 753.5 | 751.1 | 748.6 |
| 37.5° | 703.6 | 697.5 | 693.8 | 690.2 |
| 40° | 656.7 | 653.7 | 651.8 | 650.0 |
| 42.5° | 609.2 | 603.8 | 603.2 | 602.5 |
| 45° | 561.8 | 556.3 | 555.1 | 553.9 |
| 47.5° | 517.3 | 512.5 | 511.9 | 511.3 |
| 50° | 468.0 | 461.3 | 456.5 | 451.6 |
| 52.5° | 411.4 | 405.4 | 401.1 | 396.8 |
| 55° | 359.7 | 353.0 | 349.4 | 345.7 |
| 57.5° | 320.8 | 317.7 | 315.9 | 314.1 |
| 60° | 289.1 | 287.3 | 286.1 | 284.8 |
| 62.5° | 259.9 | 258.1 | 258.1 | 258.1 |
| 65° | 233.1 | 231.3 | 229.5 | 227.6 |
| 67.5° | 198.4 | 194.8 | 194.2 | 193.5 |
| 70° | 156.4 | 150.9 | 150.3 | 149.7 |
| 72.5° | 122.3 | 121.7 | 120.5 | 119.3 |
| 75° | 101.0 | 99.8 | 99.8 | 99.8 |
| 77.5° | 81.6 | 80.3 | 80.3 | 80.3 |
| 80° | 62.7 | 62.1 | 62.7 | 63.3 |
| 82.5° | 46.3 | 46.3 | 45.6 | 45.0 |
| 85° | 29.8 | 29.2 | 29.2 | 29.2 |
| 87.5° | 14.6 | 14.6 | 14.6 | 14.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |

TEST NUMBER: P832453

CATALOG NUMBER: S123RDP-S1165D927-4F0-1E-UDD-G

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 | 16.74 | 18.20 | 17.11 | 18.51 | 18.83 | 21.41 | 22.86 | 21.77 | 23.17 | 23.49 |
| | 3H | 18.01 | 19.31 | 18.38 | 19.64 | 20.00 | 22.95 | 24.25 | 23.33 | 24.58 | 24.94 |
| | 4H | 18.41 | 19.63 | 18.82 | 19.98 | 20.36 | 23.46 | 24.68 | 23.86 | 25.03 | 25.41 |
| | 6H | 18.72 | 19.85 | 19.14 | 20.22 | 20.61 | 23.80 | 24.93 | 24.22 | 25.30 | 25.69 |
| | 8H | 18.83 | 19.90 | 19.26 | 20.29 | 20.69 | 23.90 | 24.97 | 24.33 | 25.36 | 25.76 |
| | 12H | 18.90 | 19.92 | 19.33 | 20.30 | 20.73 | 23.95 | 24.97 | 24.38 | 25.36 | 25.79 |
| 4H | 2H | 17.53 | 18.75 | 17.93 | 19.10 | 19.48 | 21.47 | 22.69 | 21.87 | 23.04 | 23.42 |
| | 3H | 18.95 | 19.96 | 19.36 | 20.36 | 20.77 | 23.18 | 24.19 | 23.59 | 24.59 | 24.99 |
| | 4H | 19.43 | 20.34 | 19.86 | 20.75 | 21.19 | 23.81 | 24.71 | 24.24 | 25.13 | 25.57 |
| | 6H | 19.83 | 20.62 | 20.29 | 21.06 | 21.52 | 24.28 | 25.06 | 24.73 | 25.51 | 25.97 |
| | 8H | 19.96 | 20.70 | 20.43 | 21.14 | 21.61 | 24.42 | 25.15 | 24.88 | 25.60 | 26.07 |
| | 12H | 20.07 | 20.72 | 20.55 | 21.20 | 21.67 | 24.51 | 25.16 | 24.99 | 25.64 | 26.11 |
| 8H | 4H | 19.79 | 20.52 | 20.25 | 20.97 | 21.43 | 23.81 | 24.55 | 24.28 | 24.99 | 25.46 |
| | 6H | 20.27 | 20.87 | 20.77 | 21.37 | 21.85 | 24.33 | 24.94 | 24.83 | 25.43 | 25.91 |
| | 8H | 20.46 | 21.01 | 20.98 | 21.52 | 22.01 | 24.52 | 25.06 | 25.03 | 25.57 | 26.06 |
| | 12H | 20.63 | 21.11 | 21.14 | 21.60 | 22.17 | 24.66 | 25.14 | 25.17 | 25.63 | 26.20 |
| 12H | 4H | 19.82 | 20.48 | 20.31 | 20.96 | 21.43 | 23.79 | 24.45 | 24.28 | 24.93 | 25.40 |
| | 6H | 20.33 | 20.87 | 20.84 | 21.38 | 21.87 | 24.31 | 24.85 | 24.82 | 25.36 | 25.85 |
| | 8H | 20.57 | 21.05 | 21.09 | 21.55 | 22.11 | 24.53 | 25.00 | 25.04 | 25.50 | 26.06 |