

Scaled data based on original data using  
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: P831257

Luminaire Tested: S123DIP-S1165D365U940-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831257  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S1165D365U940-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

**Summary**

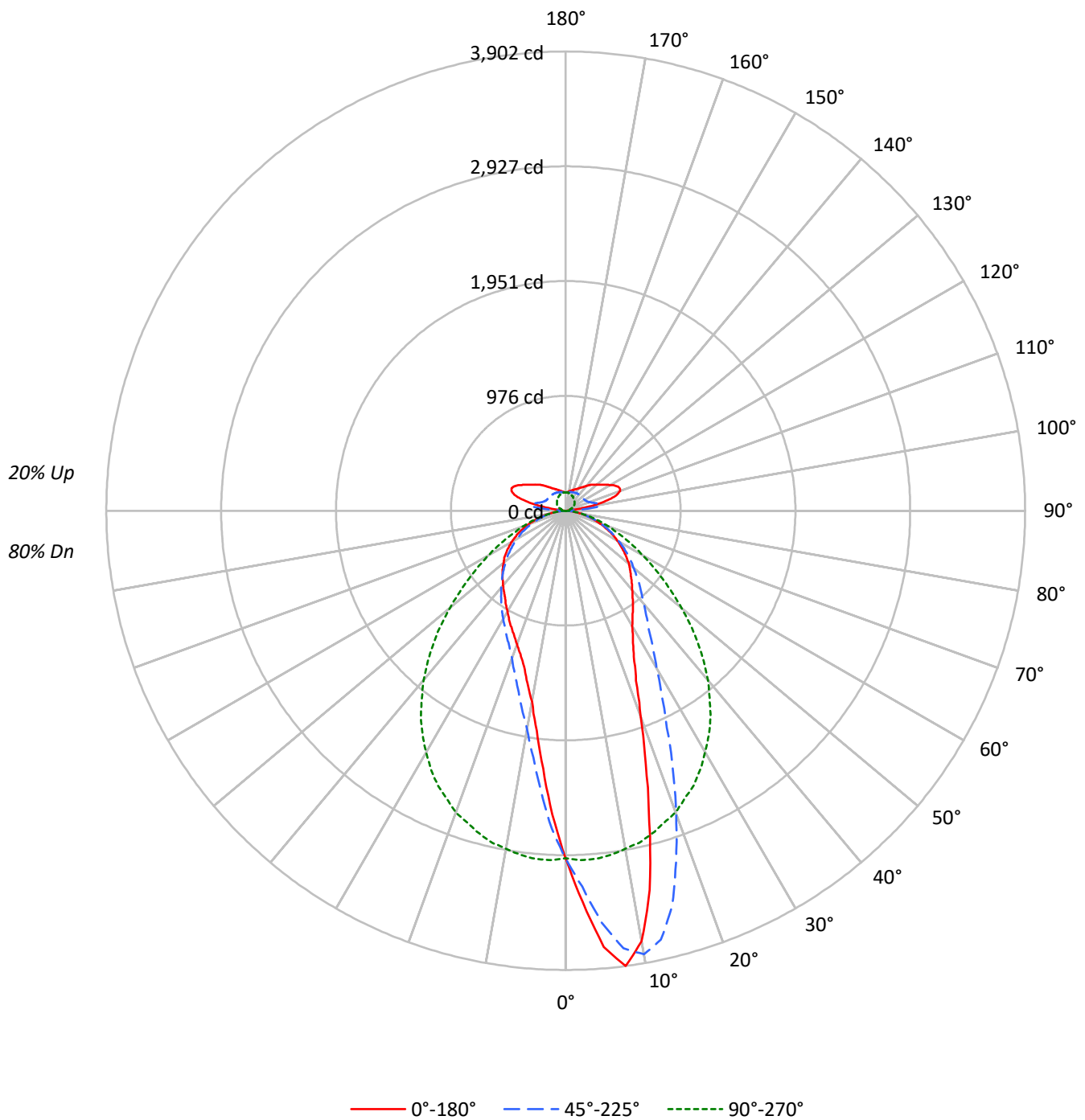
Lumens per Lamp: N/A  
Luminaire Lumens: 5919.7 lumens  
Efficiency: N/A  
Efficacy: 113.4 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 52.2  
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

TEST NUMBER: P831257

CATALOG NUMBER: S123DIP-S1165D365U940-4F0-1E-UDD-G4

### Luminous Intensity Polar Plot



TEST NUMBER: P831257

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |    |    |    | 20 |    |    |    |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |    |    |    | 30 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 114 | 114 | 114 | 114 | 109 | 109 | 109 | 109 | 100 | 100 | 100 | 92 | 92 | 92 | 84 | 84 | 84 | 84 | 84 | 80 |
| 1   | 105 | 101 | 97  | 94  | 101 | 97  | 94  | 91  | 89  | 87  | 84  | 82 | 80 | 78 | 75 | 74 | 73 | 73 | 73 | 69 |
| 2   | 97  | 89  | 83  | 78  | 92  | 86  | 81  | 76  | 79  | 75  | 71  | 73 | 70 | 67 | 68 | 65 | 62 | 62 | 62 | 59 |
| 3   | 89  | 80  | 72  | 67  | 85  | 77  | 70  | 65  | 71  | 66  | 61  | 66 | 61 | 58 | 61 | 57 | 54 | 54 | 54 | 52 |
| 4   | 82  | 71  | 64  | 58  | 78  | 69  | 62  | 56  | 64  | 58  | 53  | 59 | 54 | 51 | 55 | 51 | 48 | 48 | 48 | 45 |
| 5   | 76  | 64  | 56  | 50  | 73  | 62  | 55  | 49  | 58  | 52  | 47  | 54 | 49 | 45 | 50 | 46 | 43 | 43 | 43 | 40 |
| 6   | 71  | 59  | 50  | 45  | 67  | 57  | 49  | 44  | 53  | 47  | 42  | 49 | 44 | 40 | 46 | 42 | 38 | 38 | 38 | 36 |
| 7   | 66  | 54  | 46  | 40  | 63  | 52  | 44  | 39  | 49  | 42  | 38  | 46 | 40 | 36 | 43 | 38 | 35 | 35 | 35 | 32 |
| 8   | 61  | 49  | 41  | 36  | 59  | 48  | 40  | 35  | 45  | 39  | 34  | 42 | 37 | 33 | 40 | 35 | 31 | 31 | 31 | 29 |
| 9   | 58  | 45  | 38  | 33  | 55  | 44  | 37  | 32  | 42  | 35  | 31  | 39 | 34 | 30 | 37 | 32 | 29 | 29 | 29 | 27 |
| 10  | 54  | 42  | 35  | 30  | 52  | 41  | 34  | 30  | 39  | 33  | 29  | 37 | 31 | 28 | 35 | 30 | 27 | 27 | 27 | 25 |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   | 135°  | 180°  |
|-----|-------|-------|-------|-------|-------|
| 0°  | 31792 | 31792 | 31792 | 31792 | 31792 |
| 5°  | 40207 | 37948 | 32076 | 25849 | 23754 |
| 10° | 40596 | 41825 | 31863 | 20605 | 18006 |
| 15° | 30577 | 38832 | 31646 | 17450 | 15228 |
| 20° | 21305 | 31423 | 31242 | 15260 | 13832 |
| 25° | 16245 | 24164 | 30553 | 14039 | 12973 |
| 30° | 14054 | 19198 | 29453 | 13176 | 12282 |
| 35° | 13039 | 16209 | 28185 | 12553 | 11796 |
| 40° | 12344 | 14540 | 26402 | 11959 | 11632 |
| 45° | 11934 | 13457 | 24138 | 11496 | 11558 |
| 50° | 11729 | 12599 | 21460 | 11074 | 11499 |
| 55° | 11292 | 11973 | 18828 | 10674 | 11549 |
| 60° | 10887 | 11300 | 16228 | 10297 | 11360 |
| 65° | 10229 | 10664 | 13998 | 9897  | 11135 |
| 70° | 9448  | 9857  | 11906 | 9231  | 10480 |
| 75° | 8551  | 8833  | 10202 | 8580  | 9578  |
| 80° | 7054  | 7730  | 8071  | 7476  | 8071  |
| 85° | 5582  | 6262  | 5928  | 6348  | 6434  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°

Vertical Angle: 45°

Luminance: 27560 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 279.2  | 4.7       |
| 10°-20°   | 694.7  | 11.7      |
| 20°-30°   | 822.5  | 13.9      |
| 30°-40°   | 827.0  | 14.0      |
| 40°-50°   | 758.8  | 12.8      |
| 50°-60°   | 626.3  | 10.6      |
| 60°-70°   | 443.0  | 7.5       |
| 70°-80°   | 236.5  | 4.0       |
| 80°-90°   | 60.9   | 1.0       |
| 90°-100°  | 84.5   | 1.4       |
| 100°-110° | 247.3  | 4.2       |
| 110°-120° | 241.5  | 4.1       |
| 120°-130° | 192.3  | 3.2       |
| 130°-140° | 151.7  | 2.6       |
| 140°-150° | 113.2  | 1.9       |
| 150°-160° | 78.9   | 1.3       |
| 160°-170° | 46.4   | 0.8       |
| 170°-180° | 15.1   | 0.3       |
| 0°-30°    | 1796.4 | 30.3      |
| 0°-40°    | 2623.4 | 44.3      |
| 0°-60°    | 4008.4 | 67.7      |
| 0°-90°    | 4748.8 | 80.2      |
| 90°-120°  | 573.3  | 9.7       |
| 90°-150°  | 1030.6 | 17.4      |
| 90°-180°  | 1171.0 | 19.8      |
| 0°-180°   | 5919.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 2954 | 2954 | 2954 | 2954 | 2954 |      |
| 5°   | 3721 | 3512 | 2969 | 2392 | 2198 | 355  |
| 15°  | 2744 | 3485 | 2840 | 1566 | 1366 | 758  |
| 25°  | 1368 | 2035 | 2572 | 1182 | 1092 | 646  |
| 35°  | 992  | 1234 | 2145 | 955  | 898  | 624  |
| 45°  | 784  | 884  | 1586 | 755  | 759  | 607  |
| 55°  | 602  | 638  | 1003 | 569  | 615  | 538  |
| 65°  | 402  | 419  | 550  | 389  | 437  | 399  |
| 75°  | 206  | 212  | 245  | 206  | 230  | 216  |
| 85°  | 45   | 51   | 48   | 51   | 52   | 50   |
| 90°  | 9    | 8    | 1    | 8    | 9    | 8    |
| 95°  | 37   | 187  | 11   | 187  | 37   | 59   |
| 105° | 401  | 253  | 37   | 253  | 401  | 400  |
| 115° | 488  | 194  | 65   | 194  | 488  | 475  |
| 125° | 384  | 181  | 90   | 181  | 384  | 348  |
| 135° | 312  | 178  | 105  | 178  | 312  | 242  |
| 145° | 244  | 176  | 120  | 176  | 244  | 155  |
| 155° | 202  | 170  | 136  | 170  | 202  | 94   |
| 165° | 176  | 163  | 149  | 163  | 176  | 50   |
| 175° | 158  | 157  | 155  | 157  | 158  | 15   |
| 180° | 156  | 156  | 156  | 156  | 156  |      |

TEST NUMBER: P831257

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 |
| 2.5°   | 3329.1 | 3325.7 | 3322.2 | 3305.1 | 3288.0 | 3279.8 | 3271.5 | 3246.9 | 3222.2 | 3194.8 | 3167.4 |
| 5°     | 3721.1 | 3730.7 | 3740.3 | 3729.3 | 3718.3 | 3684.8 | 3651.2 | 3606.6 | 3562.1 | 3512.1 | 3462.0 |
| 7.5°   | 3902.0 | 3907.5 | 3913.0 | 3906.1 | 3899.2 | 3890.3 | 3881.4 | 3841.7 | 3801.9 | 3750.5 | 3699.1 |
| 10°    | 3714.2 | 3726.6 | 3738.9 | 3765.6 | 3792.3 | 3822.5 | 3852.6 | 3847.2 | 3841.7 | 3826.6 | 3811.5 |
| 12.5°  | 3301.7 | 3316.8 | 3331.8 | 3385.3 | 3438.7 | 3507.3 | 3575.8 | 3634.7 | 3693.7 | 3734.8 | 3775.9 |
| 15°    | 2743.9 | 2785.7 | 2827.5 | 2876.1 | 2924.8 | 3025.5 | 3126.3 | 3250.3 | 3374.3 | 3484.7 | 3595.0 |
| 17.5°  | 2260.1 | 2275.8 | 2291.6 | 2343.7 | 2395.7 | 2522.5 | 2649.3 | 2792.5 | 2935.7 | 3118.7 | 3301.7 |
| 20°    | 1859.9 | 1874.2 | 1888.6 | 1957.2 | 2025.7 | 2125.1 | 2224.4 | 2385.5 | 2546.5 | 2743.2 | 2939.9 |
| 22.5°  | 1562.4 | 1585.1 | 1607.7 | 1646.0 | 1684.4 | 1779.7 | 1874.9 | 2018.2 | 2161.4 | 2378.6 | 2595.8 |
| 25°    | 1367.8 | 1384.3 | 1400.7 | 1424.0 | 1447.3 | 1523.4 | 1599.4 | 1717.3 | 1835.2 | 2034.6 | 2234.0 |
| 27.5°  | 1234.9 | 1241.7 | 1248.6 | 1271.9 | 1295.2 | 1344.5 | 1393.9 | 1495.3 | 1596.7 | 1766.0 | 1935.2 |
| 30°    | 1130.7 | 1135.5 | 1140.3 | 1160.9 | 1181.4 | 1215.0 | 1248.6 | 1321.9 | 1395.2 | 1544.6 | 1694.0 |
| 32.5°  | 1058.1 | 1061.5 | 1064.9 | 1080.7 | 1096.4 | 1120.4 | 1144.4 | 1197.9 | 1251.3 | 1374.7 | 1498.0 |
| 35°    | 992.3  | 994.3  | 996.4  | 1008.0 | 1019.7 | 1037.5 | 1055.3 | 1095.8 | 1136.2 | 1233.5 | 1330.8 |
| 37.5°  | 934.7  | 937.5  | 940.2  | 947.1  | 953.9  | 969.7  | 985.4  | 1017.6 | 1049.9 | 1124.5 | 1199.2 |
| 40°    | 878.5  | 883.3  | 888.1  | 892.9  | 897.7  | 910.7  | 923.8  | 948.4  | 973.1  | 1034.8 | 1096.4 |
| 42.5°  | 830.6  | 835.4  | 840.2  | 842.2  | 844.3  | 851.8  | 859.3  | 882.0  | 904.6  | 950.5  | 996.4  |
| 45°    | 784.0  | 786.0  | 788.1  | 790.1  | 792.2  | 798.4  | 804.5  | 824.4  | 844.3  | 884.0  | 923.8  |
| 47.5°  | 741.5  | 741.5  | 741.5  | 742.8  | 744.2  | 749.7  | 755.2  | 769.6  | 784.0  | 814.8  | 845.6  |
| 50°    | 700.4  | 700.4  | 700.4  | 698.3  | 696.2  | 699.7  | 703.1  | 714.1  | 725.0  | 752.4  | 779.8  |
| 52.5°  | 651.0  | 651.0  | 651.0  | 651.7  | 652.4  | 652.4  | 652.4  | 662.0  | 671.6  | 696.2  | 720.9  |
| 55°    | 601.7  | 604.4  | 607.2  | 605.1  | 603.0  | 604.4  | 605.8  | 612.0  | 618.1  | 638.0  | 657.9  |
| 57.5°  | 552.3  | 553.7  | 555.1  | 554.4  | 553.7  | 554.4  | 555.1  | 560.6  | 566.0  | 581.1  | 596.2  |
| 60°    | 505.7  | 505.7  | 505.7  | 504.4  | 503.0  | 504.4  | 505.7  | 508.5  | 511.2  | 524.9  | 538.6  |
| 62.5°  | 453.7  | 454.3  | 455.0  | 455.7  | 456.4  | 455.0  | 453.7  | 457.1  | 460.5  | 470.8  | 481.1  |
| 65°    | 401.6  | 402.3  | 402.9  | 405.0  | 407.1  | 405.7  | 404.3  | 407.7  | 411.2  | 418.7  | 426.2  |
| 67.5°  | 355.0  | 353.6  | 352.2  | 352.9  | 353.6  | 355.7  | 357.7  | 358.4  | 359.1  | 367.3  | 375.5  |
| 70°    | 300.2  | 301.5  | 302.9  | 302.2  | 301.5  | 302.2  | 302.9  | 305.0  | 307.0  | 313.2  | 319.3  |
| 72.5°  | 250.8  | 251.5  | 252.2  | 252.2  | 252.2  | 253.6  | 254.9  | 257.0  | 259.0  | 262.5  | 265.9  |
| 75°    | 205.6  | 205.6  | 205.6  | 207.0  | 208.3  | 209.0  | 209.7  | 209.7  | 209.7  | 212.4  | 215.2  |
| 77.5°  | 156.2  | 159.7  | 163.1  | 162.4  | 161.7  | 163.1  | 164.5  | 166.5  | 168.6  | 169.9  | 171.3  |
| 80°    | 113.8  | 113.8  | 113.8  | 114.4  | 115.1  | 117.2  | 119.2  | 120.6  | 122.0  | 124.7  | 127.5  |
| 82.5°  | 72.6   | 73.3   | 74.0   | 76.1   | 78.1   | 79.5   | 80.9   | 82.9   | 85.0   | 85.0   | 85.0   |
| 85°    | 45.2   | 43.9   | 42.5   | 43.9   | 45.2   | 46.6   | 48.0   | 48.7   | 49.3   | 50.7   | 52.1   |
| 87.5°  | 21.9   | 21.9   | 21.9   | 21.9   | 21.9   | 22.6   | 23.3   | 23.3   | 23.3   | 23.3   | 23.3   |
| 90°    | 9.1    | 9.5    | 9.1    | 8.8    | 9.1    | 8.5    | 8.2    | 7.9    | 7.6    | 7.9    | 6.9    |
| 92.5°  | 16.7   | 17.3   | 17.0   | 18.3   | 18.9   | 21.1   | 24.3   | 31.2   | 43.8   | 58.6   | 64.9   |
| 95°    | 36.6   | 37.8   | 40.0   | 42.9   | 48.8   | 60.2   | 76.9   | 113.4  | 151.6  | 186.9  | 166.4  |
| 97.5°  | 75.0   | 78.5   | 86.0   | 98.0   | 119.1  | 155.0  | 196.6  | 260.6  | 297.2  | 287.4  | 214.6  |
| 100°   | 197.6  | 197.3  | 209.6  | 232.6  | 264.4  | 309.1  | 346.0  | 371.5  | 360.5  | 298.4  | 201.7  |
| 102.5° | 312.9  | 322.0  | 331.8  | 348.8  | 371.8  | 396.1  | 413.7  | 408.4  | 363.6  | 277.9  | 182.8  |
| 105°   | 400.8  | 402.4  | 412.5  | 424.5  | 439.0  | 447.1  | 441.2  | 409.6  | 343.8  | 253.4  | 168.0  |
| 107.5° | 458.2  | 461.6  | 465.7  | 471.4  | 473.3  | 464.8  | 440.2  | 390.7  | 315.4  | 231.6  | 157.2  |
| 110°   | 490.9  | 491.6  | 492.2  | 489.7  | 480.9  | 458.8  | 419.1  | 361.1  | 289.0  | 213.6  | 151.6  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 497.6 | 497.2 | 494.1 | 485.0 | 467.0 | 437.1 | 391.4 | 331.8 | 266.0 | 201.7 | 148.4 |
| 115°   | 487.5 | 485.9 | 479.6 | 465.7 | 442.1 | 407.8 | 361.4 | 306.6 | 248.3 | 193.8 | 148.1 |
| 117.5° | 465.4 | 463.2 | 453.8 | 438.3 | 413.7 | 378.1 | 335.6 | 287.1 | 236.7 | 188.4 | 148.4 |
| 120°   | 436.4 | 434.5 | 427.0 | 409.3 | 384.4 | 352.6 | 314.8 | 272.3 | 227.8 | 185.0 | 149.7 |
| 122.5° | 409.3 | 406.8 | 398.3 | 382.9 | 361.4 | 332.4 | 298.1 | 260.6 | 220.6 | 182.8 | 151.9 |
| 125°   | 384.4 | 382.2 | 374.4 | 360.5 | 340.3 | 315.1 | 284.9 | 250.5 | 214.6 | 180.9 | 154.1 |
| 127.5° | 363.0 | 361.1 | 353.9 | 341.9 | 323.6 | 300.3 | 272.6 | 241.4 | 208.9 | 179.9 | 156.6 |
| 130°   | 345.4 | 342.8 | 336.2 | 324.9 | 308.2 | 286.8 | 261.2 | 232.9 | 204.5 | 179.0 | 159.1 |
| 132.5° | 328.0 | 326.5 | 320.8 | 309.4 | 294.0 | 273.8 | 250.5 | 225.0 | 200.4 | 178.7 | 161.0 |
| 135°   | 311.6 | 309.4 | 303.8 | 294.3 | 278.9 | 260.9 | 240.4 | 218.1 | 196.9 | 178.4 | 162.9 |
| 137.5° | 294.3 | 292.4 | 287.7 | 277.9 | 264.7 | 248.6 | 230.3 | 211.4 | 193.8 | 177.7 | 164.2 |
| 140°   | 276.0 | 276.4 | 271.3 | 262.5 | 250.5 | 237.0 | 221.8 | 205.8 | 191.0 | 177.4 | 165.4 |
| 142.5° | 259.0 | 259.3 | 254.9 | 247.4 | 237.6 | 226.3 | 213.6 | 200.4 | 188.4 | 176.8 | 166.4 |
| 145°   | 243.6 | 243.0 | 240.4 | 233.8 | 225.9 | 216.8 | 206.7 | 196.3 | 186.2 | 176.1 | 166.7 |
| 147.5° | 230.3 | 230.0 | 227.5 | 222.8 | 216.5 | 209.9 | 201.4 | 192.8 | 184.0 | 175.2 | 166.7 |
| 150°   | 219.0 | 219.0 | 217.1 | 213.6 | 208.9 | 202.9 | 196.3 | 189.1 | 181.8 | 173.9 | 166.7 |
| 152.5° | 209.6 | 209.6 | 208.6 | 205.5 | 202.0 | 197.3 | 191.6 | 185.6 | 179.3 | 172.4 | 165.7 |
| 155°   | 202.0 | 201.7 | 201.0 | 198.5 | 195.7 | 191.9 | 187.2 | 182.1 | 176.8 | 170.5 | 165.1 |
| 157.5° | 194.7 | 194.7 | 194.1 | 192.2 | 189.7 | 186.5 | 182.8 | 178.4 | 173.9 | 168.9 | 164.2 |
| 160°   | 187.8 | 188.1 | 188.1 | 186.2 | 184.0 | 181.8 | 178.7 | 175.2 | 171.1 | 167.0 | 163.5 |
| 162.5° | 181.5 | 181.8 | 181.8 | 180.2 | 179.0 | 177.1 | 174.3 | 171.4 | 168.3 | 165.1 | 162.3 |
| 165°   | 176.1 | 176.1 | 176.5 | 175.2 | 173.9 | 172.4 | 170.2 | 168.3 | 165.7 | 163.2 | 161.0 |
| 167.5° | 170.8 | 170.8 | 171.1 | 170.2 | 169.5 | 168.3 | 167.0 | 165.4 | 163.2 | 161.3 | 159.8 |
| 170°   | 166.1 | 166.1 | 166.4 | 165.7 | 165.4 | 164.8 | 163.5 | 162.6 | 161.0 | 159.4 | 158.5 |
| 172.5° | 161.7 | 162.0 | 162.6 | 162.0 | 162.0 | 161.7 | 160.7 | 160.1 | 158.8 | 157.9 | 157.6 |
| 175°   | 158.5 | 158.8 | 159.1 | 158.8 | 158.8 | 158.8 | 158.2 | 157.9 | 157.2 | 156.6 | 156.6 |
| 177.5° | 156.3 | 156.3 | 156.9 | 156.6 | 156.9 | 156.9 | 156.6 | 156.3 | 156.0 | 155.7 | 156.0 |
| 180°   | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    | 100°   | 105°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 |
| 2.5°   | 3159.1 | 3150.9 | 3120.8 | 3090.6 | 3056.4 | 3022.1 | 2996.7 | 2971.4 | 2933.7 | 2896.0 | 2865.2 |
| 5°     | 3423.7 | 3385.3 | 3321.6 | 3257.8 | 3171.5 | 3085.1 | 3026.9 | 2968.6 | 2890.5 | 2812.4 | 2750.0 |
| 7.5°   | 3633.4 | 3567.6 | 3478.5 | 3389.4 | 3276.3 | 3163.3 | 3056.4 | 2949.4 | 2830.2 | 2711.0 | 2613.7 |
| 10°    | 3767.0 | 3722.4 | 3619.7 | 3516.9 | 3365.4 | 3214.0 | 3064.6 | 2915.2 | 2761.7 | 2608.2 | 2479.3 |
| 12.5°  | 3780.0 | 3784.1 | 3689.6 | 3595.0 | 3423.7 | 3252.3 | 3070.7 | 2889.1 | 2695.9 | 2502.6 | 2352.6 |
| 15°    | 3665.6 | 3736.2 | 3684.1 | 3632.0 | 3459.3 | 3286.6 | 3063.2 | 2839.8 | 2617.1 | 2394.4 | 2221.0 |
| 17.5°  | 3453.1 | 3604.6 | 3612.1 | 3619.7 | 3447.0 | 3274.3 | 3026.9 | 2779.5 | 2527.3 | 2275.1 | 2092.8 |
| 20°    | 3163.3 | 3386.7 | 3463.4 | 3540.2 | 3399.7 | 3259.2 | 2993.3 | 2727.4 | 2445.1 | 2162.7 | 1971.6 |
| 22.5°  | 2867.2 | 3138.6 | 3279.1 | 3419.6 | 3315.4 | 3211.2 | 2928.2 | 2645.2 | 2347.1 | 2049.0 | 1855.1 |
| 25°    | 2530.1 | 2826.1 | 3042.0 | 3257.8 | 3194.1 | 3130.4 | 2851.5 | 2572.5 | 2255.3 | 1938.0 | 1739.9 |
| 27.5°  | 2236.1 | 2536.9 | 2797.3 | 3057.7 | 3044.0 | 3030.3 | 2753.5 | 2476.6 | 2151.8 | 1827.0 | 1635.8 |
| 30°    | 1974.3 | 2254.6 | 2545.8 | 2837.1 | 2870.6 | 2904.2 | 2637.0 | 2369.7 | 2044.2 | 1718.7 | 1534.3 |
| 32.5°  | 1742.7 | 1987.3 | 2299.8 | 2612.3 | 2678.1 | 2743.9 | 2502.6 | 2261.4 | 1939.3 | 1617.3 | 1439.8 |
| 35°    | 1552.8 | 1774.9 | 2087.4 | 2399.9 | 2482.1 | 2564.3 | 2354.6 | 2144.9 | 1831.1 | 1517.2 | 1347.9 |
| 37.5°  | 1385.0 | 1570.7 | 1875.6 | 2180.6 | 2281.3 | 2382.0 | 2194.3 | 2006.5 | 1712.5 | 1418.5 | 1263.0 |
| 40°    | 1245.8 | 1395.2 | 1675.5 | 1955.8 | 2072.3 | 2188.8 | 2033.9 | 1879.0 | 1600.1 | 1321.2 | 1178.0 |
| 42.5°  | 1129.3 | 1262.3 | 1516.5 | 1770.8 | 1882.5 | 1994.2 | 1863.3 | 1732.4 | 1484.3 | 1236.2 | 1105.4 |
| 45°    | 1030.0 | 1136.2 | 1367.1 | 1598.1 | 1704.3 | 1810.5 | 1698.1 | 1585.7 | 1367.1 | 1148.5 | 1026.6 |
| 47.5°  | 936.8  | 1027.9 | 1225.3 | 1422.6 | 1517.2 | 1611.8 | 1524.1 | 1436.3 | 1251.3 | 1066.3 | 956.0  |
| 50°    | 853.2  | 926.5  | 1099.2 | 1271.9 | 1354.1 | 1436.3 | 1358.9 | 1281.5 | 1129.3 | 977.2  | 881.3  |
| 52.5°  | 780.5  | 840.2  | 984.7  | 1129.3 | 1199.9 | 1270.5 | 1204.0 | 1137.6 | 1017.0 | 896.3  | 812.7  |
| 55°    | 708.6  | 759.3  | 884.7  | 1010.1 | 1058.1 | 1106.0 | 1054.6 | 1003.3 | 905.9  | 808.6  | 738.0  |
| 57.5°  | 641.4  | 686.7  | 789.4  | 892.2  | 929.2  | 966.2  | 919.6  | 873.0  | 799.7  | 726.4  | 667.5  |
| 60°    | 575.6  | 612.6  | 698.3  | 784.0  | 806.6  | 829.2  | 791.5  | 753.8  | 702.4  | 651.0  | 598.3  |
| 62.5°  | 514.6  | 548.2  | 612.0  | 675.7  | 690.8  | 705.8  | 677.1  | 648.3  | 609.2  | 570.2  | 529.0  |
| 65°    | 451.6  | 477.0  | 529.0  | 581.1  | 590.7  | 600.3  | 575.0  | 549.6  | 520.1  | 490.7  | 460.5  |
| 67.5°  | 393.4  | 411.2  | 453.7  | 496.1  | 496.8  | 497.5  | 477.0  | 456.4  | 440.0  | 423.5  | 399.5  |
| 70°    | 336.5  | 353.6  | 381.7  | 409.8  | 410.5  | 411.2  | 394.7  | 378.3  | 365.9  | 353.6  | 335.8  |
| 72.5°  | 278.2  | 290.6  | 311.8  | 333.0  | 331.7  | 330.3  | 320.0  | 309.7  | 300.2  | 290.6  | 277.5  |
| 75°    | 225.5  | 235.7  | 250.1  | 264.5  | 260.4  | 256.3  | 250.8  | 245.3  | 237.1  | 228.9  | 220.7  |
| 77.5°  | 177.5  | 183.7  | 191.9  | 200.1  | 197.4  | 194.6  | 189.8  | 185.0  | 178.9  | 172.7  | 169.3  |
| 80°    | 130.2  | 132.9  | 138.4  | 143.9  | 142.5  | 141.2  | 135.7  | 130.2  | 128.8  | 127.5  | 122.7  |
| 82.5°  | 88.4   | 91.8   | 93.2   | 94.6   | 93.9   | 93.2   | 89.1   | 85.0   | 83.6   | 82.2   | 81.5   |
| 85°    | 52.8   | 53.5   | 54.1   | 54.8   | 52.8   | 50.7   | 49.3   | 48.0   | 48.0   | 48.0   | 47.3   |
| 87.5°  | 24.0   | 24.7   | 24.7   | 24.7   | 24.0   | 23.3   | 21.9   | 20.6   | 21.2   | 21.9   | 21.9   |
| 90°    | 6.0    | 5.0    | 4.1    | 3.5    | 2.8    | 1.9    | 1.3    | 0.6    | 1.3    | 1.9    | 2.8    |
| 92.5°  | 48.5   | 31.8   | 21.7   | 16.1   | 12.9   | 10.1   | 6.9    | 4.7    | 6.9    | 10.1   | 12.9   |
| 95°    | 114.7  | 67.7   | 41.0   | 28.7   | 20.5   | 15.1   | 11.7   | 10.7   | 11.7   | 15.1   | 20.5   |
| 97.5°  | 127.6  | 73.1   | 46.6   | 33.1   | 24.9   | 20.2   | 17.3   | 17.0   | 17.3   | 20.2   | 24.9   |
| 100°   | 118.8  | 72.2   | 50.1   | 37.8   | 30.3   | 25.8   | 23.6   | 23.3   | 23.6   | 25.8   | 30.3   |
| 102.5° | 111.2  | 73.4   | 54.2   | 43.2   | 36.6   | 32.5   | 30.6   | 29.9   | 30.6   | 32.5   | 36.6   |
| 105°   | 108.4  | 75.9   | 58.9   | 49.2   | 43.2   | 39.4   | 37.5   | 36.6   | 37.5   | 39.4   | 43.2   |
| 107.5° | 107.8  | 80.0   | 64.9   | 55.8   | 50.1   | 46.3   | 44.4   | 43.5   | 44.4   | 46.3   | 50.1   |
| 110°   | 109.3  | 85.4   | 71.2   | 62.4   | 57.0   | 53.6   | 52.0   | 51.0   | 52.0   | 53.6   | 57.0   |

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**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   | 100°  | 105°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 112.5 | 90.8  | 77.8  | 69.3  | 64.0  | 60.5  | 58.9  | 58.0  | 58.9  | 60.5  | 64.0  |
| 115°   | 116.0 | 96.7  | 84.8  | 76.3  | 70.9  | 67.7  | 65.9  | 64.6  | 65.9  | 67.7  | 70.9  |
| 117.5° | 120.4 | 103.0 | 91.1  | 83.2  | 77.2  | 74.4  | 72.8  | 71.2  | 72.8  | 74.4  | 77.2  |
| 120°   | 125.4 | 109.0 | 97.7  | 89.8  | 83.8  | 80.7  | 79.1  | 78.1  | 79.1  | 80.7  | 83.8  |
| 122.5° | 130.1 | 115.3 | 104.3 | 95.8  | 90.1  | 86.7  | 85.1  | 84.1  | 85.1  | 86.7  | 90.1  |
| 125°   | 135.2 | 121.3 | 110.3 | 101.8 | 95.8  | 92.3  | 90.4  | 89.8  | 90.4  | 92.3  | 95.8  |
| 127.5° | 139.3 | 126.7 | 116.0 | 107.5 | 100.8 | 97.4  | 95.2  | 94.2  | 95.2  | 97.4  | 100.8 |
| 130°   | 143.4 | 131.4 | 121.0 | 112.5 | 105.9 | 102.1 | 99.3  | 98.3  | 99.3  | 102.1 | 105.9 |
| 132.5° | 147.2 | 135.5 | 125.4 | 117.2 | 110.6 | 105.9 | 102.7 | 101.5 | 102.7 | 105.9 | 110.6 |
| 135°   | 150.3 | 139.6 | 129.8 | 121.3 | 114.7 | 110.0 | 106.5 | 105.2 | 106.5 | 110.0 | 114.7 |
| 137.5° | 152.8 | 142.4 | 133.0 | 125.1 | 118.5 | 113.4 | 110.0 | 108.7 | 110.0 | 113.4 | 118.5 |
| 140°   | 154.7 | 145.3 | 136.1 | 128.3 | 121.9 | 116.9 | 113.8 | 112.2 | 113.8 | 116.9 | 121.9 |
| 142.5° | 156.6 | 147.5 | 138.6 | 131.4 | 125.1 | 120.7 | 117.2 | 116.0 | 117.2 | 120.7 | 125.1 |
| 145°   | 157.9 | 149.4 | 141.2 | 133.9 | 128.6 | 123.8 | 121.0 | 120.1 | 121.0 | 123.8 | 128.6 |
| 147.5° | 158.8 | 150.9 | 143.4 | 137.1 | 131.7 | 127.6 | 124.8 | 124.2 | 124.8 | 127.6 | 131.7 |
| 150°   | 159.1 | 152.5 | 145.3 | 139.6 | 135.2 | 131.1 | 128.6 | 128.3 | 128.6 | 131.1 | 135.2 |
| 152.5° | 159.8 | 153.5 | 147.5 | 142.1 | 138.3 | 134.9 | 132.3 | 132.3 | 132.3 | 134.9 | 138.3 |
| 155°   | 159.8 | 154.7 | 149.4 | 145.0 | 141.5 | 138.3 | 136.4 | 136.4 | 136.4 | 138.3 | 141.5 |
| 157.5° | 160.1 | 155.4 | 150.9 | 147.5 | 144.3 | 141.5 | 139.9 | 139.6 | 139.9 | 141.5 | 144.3 |
| 160°   | 160.1 | 156.3 | 152.5 | 149.4 | 147.2 | 144.6 | 143.4 | 143.4 | 143.4 | 144.6 | 147.2 |
| 162.5° | 159.8 | 156.6 | 153.5 | 150.9 | 149.0 | 147.2 | 146.2 | 146.2 | 146.2 | 147.2 | 149.0 |
| 165°   | 159.1 | 156.9 | 154.4 | 152.2 | 150.9 | 149.4 | 148.7 | 149.0 | 148.7 | 149.4 | 150.9 |
| 167.5° | 158.8 | 156.9 | 155.0 | 153.5 | 152.5 | 151.3 | 150.9 | 151.3 | 150.9 | 151.3 | 152.5 |
| 170°   | 157.9 | 156.6 | 155.0 | 154.4 | 153.8 | 152.8 | 152.5 | 153.1 | 152.5 | 152.8 | 153.8 |
| 172.5° | 157.6 | 156.6 | 155.4 | 155.0 | 154.7 | 154.1 | 154.1 | 154.4 | 154.1 | 154.1 | 154.7 |
| 175°   | 156.9 | 156.3 | 155.7 | 155.4 | 155.4 | 154.7 | 155.0 | 155.4 | 155.0 | 154.7 | 155.4 |
| 177.5° | 156.6 | 156.0 | 155.7 | 155.7 | 155.7 | 155.4 | 155.7 | 156.0 | 155.7 | 155.4 | 155.7 |
| 180°   | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 |

TEST NUMBER: P831257

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**CANDELA DISTRIBUTION (continued):**

|        | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   | 160°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 | 2953.6 |
| 2.5°   | 2834.3 | 2807.6 | 2780.9 | 2760.3 | 2739.8 | 2704.8 | 2669.9 | 2661.6 | 2653.4 | 2641.8 | 2630.1 |
| 5°     | 2687.7 | 2621.9 | 2556.1 | 2497.2 | 2438.2 | 2392.3 | 2346.4 | 2316.2 | 2286.1 | 2264.2 | 2242.2 |
| 7.5°   | 2516.4 | 2417.7 | 2319.0 | 2249.1 | 2179.2 | 2112.7 | 2046.2 | 2025.0 | 2003.8 | 1975.0 | 1946.2 |
| 10°    | 2350.5 | 2241.6 | 2132.6 | 2041.5 | 1950.3 | 1885.2 | 1820.1 | 1794.1 | 1768.0 | 1731.7 | 1695.4 |
| 12.5°  | 2202.5 | 2083.3 | 1964.0 | 1872.2 | 1780.4 | 1717.3 | 1654.3 | 1616.6 | 1578.9 | 1558.3 | 1537.8 |
| 15°    | 2047.6 | 1920.2 | 1792.7 | 1707.7 | 1622.7 | 1565.9 | 1509.0 | 1476.1 | 1443.2 | 1423.3 | 1403.5 |
| 17.5°  | 1910.6 | 1784.5 | 1658.4 | 1576.8 | 1495.3 | 1443.2 | 1391.1 | 1362.3 | 1333.6 | 1318.5 | 1303.4 |
| 20°    | 1780.4 | 1657.0 | 1533.7 | 1454.2 | 1374.7 | 1332.2 | 1289.7 | 1271.2 | 1252.7 | 1240.4 | 1228.0 |
| 22.5°  | 1661.1 | 1539.8 | 1418.5 | 1350.7 | 1282.8 | 1248.6 | 1214.3 | 1201.3 | 1188.3 | 1178.0 | 1167.7 |
| 25°    | 1541.9 | 1433.6 | 1325.3 | 1267.8 | 1210.2 | 1182.1 | 1154.0 | 1141.0 | 1128.0 | 1117.7 | 1107.4 |
| 27.5°  | 1444.6 | 1341.1 | 1237.6 | 1188.3 | 1138.9 | 1117.0 | 1095.1 | 1084.8 | 1074.5 | 1064.9 | 1055.3 |
| 30°    | 1350.0 | 1257.5 | 1165.0 | 1122.5 | 1080.0 | 1060.1 | 1040.3 | 1030.0 | 1019.7 | 1010.8 | 1001.9 |
| 32.5°  | 1262.3 | 1182.8 | 1103.3 | 1064.2 | 1025.2 | 1008.7 | 992.3  | 980.0  | 967.6  | 960.8  | 953.9  |
| 35°    | 1178.7 | 1107.4 | 1036.1 | 1003.9 | 971.7  | 955.3  | 938.8  | 928.6  | 918.3  | 912.8  | 907.3  |
| 37.5°  | 1107.4 | 1043.7 | 980.0  | 949.1  | 918.3  | 902.5  | 886.8  | 877.8  | 868.9  | 866.9  | 864.8  |
| 40°    | 1034.8 | 980.0  | 925.1  | 895.0  | 864.8  | 851.1  | 837.4  | 831.9  | 826.4  | 825.1  | 823.7  |
| 42.5°  | 974.5  | 921.0  | 867.6  | 840.2  | 812.7  | 801.1  | 789.4  | 786.7  | 784.0  | 786.0  | 788.1  |
| 45°    | 904.6  | 860.0  | 815.5  | 790.1  | 764.8  | 755.2  | 745.6  | 743.5  | 741.5  | 745.6  | 749.7  |
| 47.5°  | 845.6  | 804.5  | 763.4  | 739.4  | 715.4  | 708.6  | 701.7  | 701.0  | 700.4  | 705.8  | 711.3  |
| 50°    | 785.3  | 745.6  | 705.8  | 686.7  | 667.5  | 661.3  | 655.1  | 657.2  | 659.2  | 668.1  | 677.1  |
| 52.5°  | 729.1  | 692.1  | 655.1  | 637.3  | 619.5  | 615.4  | 611.3  | 616.1  | 620.9  | 630.5  | 640.1  |
| 55°    | 667.5  | 633.9  | 600.3  | 586.6  | 572.9  | 568.8  | 564.7  | 574.3  | 583.9  | 592.8  | 601.7  |
| 57.5°  | 608.5  | 579.1  | 549.6  | 537.3  | 524.9  | 524.2  | 523.6  | 532.5  | 541.4  | 551.0  | 560.6  |
| 60°    | 545.5  | 520.8  | 496.1  | 486.5  | 477.0  | 478.3  | 479.7  | 490.0  | 500.3  | 507.8  | 515.3  |
| 62.5°  | 487.9  | 467.4  | 446.8  | 437.9  | 429.0  | 432.4  | 435.8  | 446.1  | 456.4  | 465.3  | 474.2  |
| 65°    | 430.4  | 413.2  | 396.1  | 389.9  | 383.8  | 388.6  | 393.4  | 402.3  | 411.2  | 417.3  | 423.5  |
| 67.5°  | 375.5  | 361.1  | 346.8  | 342.0  | 337.2  | 342.0  | 346.8  | 355.7  | 364.6  | 370.7  | 376.9  |
| 70°    | 318.0  | 306.3  | 294.7  | 291.2  | 287.8  | 293.3  | 298.8  | 306.3  | 313.9  | 320.0  | 326.2  |
| 72.5°  | 264.5  | 255.6  | 246.7  | 246.0  | 245.3  | 250.1  | 254.9  | 262.5  | 270.0  | 274.1  | 278.2  |
| 75°    | 212.4  | 207.6  | 202.8  | 202.2  | 201.5  | 206.3  | 211.1  | 215.2  | 219.3  | 222.7  | 226.1  |
| 77.5°  | 165.8  | 161.7  | 157.6  | 158.3  | 159.0  | 162.4  | 165.8  | 169.9  | 174.1  | 176.1  | 178.2  |
| 80°    | 117.9  | 116.5  | 115.1  | 116.5  | 117.9  | 120.6  | 123.4  | 126.1  | 128.8  | 130.2  | 131.6  |
| 82.5°  | 80.9   | 79.5   | 78.1   | 80.2   | 82.2   | 84.3   | 86.3   | 88.4   | 90.5   | 91.1   | 91.8   |
| 85°    | 46.6   | 48.7   | 50.7   | 50.7   | 50.7   | 51.4   | 52.1   | 52.8   | 53.5   | 52.8   | 52.1   |
| 87.5°  | 21.9   | 22.6   | 23.3   | 23.3   | 23.3   | 24.0   | 24.7   | 24.7   | 24.7   | 24.0   | 23.3   |
| 90°    | 3.5    | 4.1    | 5.0    | 6.0    | 6.9    | 7.9    | 7.6    | 7.9    | 8.2    | 8.5    | 9.1    |
| 92.5°  | 16.1   | 21.7   | 31.8   | 48.5   | 64.9   | 58.6   | 43.8   | 31.2   | 24.3   | 21.1   | 18.9   |
| 95°    | 28.7   | 41.0   | 67.7   | 114.7  | 166.4  | 186.9  | 151.6  | 113.4  | 76.9   | 60.2   | 48.8   |
| 97.5°  | 33.1   | 46.6   | 73.1   | 127.6  | 214.6  | 287.4  | 297.2  | 260.6  | 196.6  | 155.0  | 119.1  |
| 100°   | 37.8   | 50.1   | 72.2   | 118.8  | 201.7  | 298.4  | 360.5  | 371.5  | 346.0  | 309.1  | 264.4  |
| 102.5° | 43.2   | 54.2   | 73.4   | 111.2  | 182.8  | 277.9  | 363.6  | 408.4  | 413.7  | 396.1  | 371.8  |
| 105°   | 49.2   | 58.9   | 75.9   | 108.4  | 168.0  | 253.4  | 343.8  | 409.6  | 441.2  | 447.1  | 439.0  |
| 107.5° | 55.8   | 64.9   | 80.0   | 107.8  | 157.2  | 231.6  | 315.4  | 390.7  | 440.2  | 464.8  | 473.3  |
| 110°   | 62.4   | 71.2   | 85.4   | 109.3  | 151.6  | 213.6  | 289.0  | 361.1  | 419.1  | 458.8  | 480.9  |

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**CANDELA DISTRIBUTION (continued):**

|        | 110°  | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  | 150°  | 155°  | 160°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 69.3  | 77.8  | 90.8  | 112.5 | 148.4 | 201.7 | 266.0 | 331.8 | 391.4 | 437.1 | 467.0 |
| 115°   | 76.3  | 84.8  | 96.7  | 116.0 | 148.1 | 193.8 | 248.3 | 306.6 | 361.4 | 407.8 | 442.1 |
| 117.5° | 83.2  | 91.1  | 103.0 | 120.4 | 148.4 | 188.4 | 236.7 | 287.1 | 335.6 | 378.1 | 413.7 |
| 120°   | 89.8  | 97.7  | 109.0 | 125.4 | 149.7 | 185.0 | 227.8 | 272.3 | 314.8 | 352.6 | 384.4 |
| 122.5° | 95.8  | 104.3 | 115.3 | 130.1 | 151.9 | 182.8 | 220.6 | 260.6 | 298.1 | 332.4 | 361.4 |
| 125°   | 101.8 | 110.3 | 121.3 | 135.2 | 154.1 | 180.9 | 214.6 | 250.5 | 284.9 | 315.1 | 340.3 |
| 127.5° | 107.5 | 116.0 | 126.7 | 139.3 | 156.6 | 179.9 | 208.9 | 241.4 | 272.6 | 300.3 | 323.6 |
| 130°   | 112.5 | 121.0 | 131.4 | 143.4 | 159.1 | 179.0 | 204.5 | 232.9 | 261.2 | 286.8 | 308.2 |
| 132.5° | 117.2 | 125.4 | 135.5 | 147.2 | 161.0 | 178.7 | 200.4 | 225.0 | 250.5 | 273.8 | 294.0 |
| 135°   | 121.3 | 129.8 | 139.6 | 150.3 | 162.9 | 178.4 | 196.9 | 218.1 | 240.4 | 260.9 | 278.9 |
| 137.5° | 125.1 | 133.0 | 142.4 | 152.8 | 164.2 | 177.7 | 193.8 | 211.4 | 230.3 | 248.6 | 264.7 |
| 140°   | 128.3 | 136.1 | 145.3 | 154.7 | 165.4 | 177.4 | 191.0 | 205.8 | 221.8 | 237.0 | 250.5 |
| 142.5° | 131.4 | 138.6 | 147.5 | 156.6 | 166.4 | 176.8 | 188.4 | 200.4 | 213.6 | 226.3 | 237.6 |
| 145°   | 133.9 | 141.2 | 149.4 | 157.9 | 166.7 | 176.1 | 186.2 | 196.3 | 206.7 | 216.8 | 225.9 |
| 147.5° | 137.1 | 143.4 | 150.9 | 158.8 | 166.7 | 175.2 | 184.0 | 192.8 | 201.4 | 209.9 | 216.5 |
| 150°   | 139.6 | 145.3 | 152.5 | 159.1 | 166.7 | 173.9 | 181.8 | 189.1 | 196.3 | 202.9 | 208.9 |
| 152.5° | 142.1 | 147.5 | 153.5 | 159.8 | 165.7 | 172.4 | 179.3 | 185.6 | 191.6 | 197.3 | 202.0 |
| 155°   | 145.0 | 149.4 | 154.7 | 159.8 | 165.1 | 170.5 | 176.8 | 182.1 | 187.2 | 191.9 | 195.7 |
| 157.5° | 147.5 | 150.9 | 155.4 | 160.1 | 164.2 | 168.9 | 173.9 | 178.4 | 182.8 | 186.5 | 189.7 |
| 160°   | 149.4 | 152.5 | 156.3 | 160.1 | 163.5 | 167.0 | 171.1 | 175.2 | 178.7 | 181.8 | 184.0 |
| 162.5° | 150.9 | 153.5 | 156.6 | 159.8 | 162.3 | 165.1 | 168.3 | 171.4 | 174.3 | 177.1 | 179.0 |
| 165°   | 152.2 | 154.4 | 156.9 | 159.1 | 161.0 | 163.2 | 165.7 | 168.3 | 170.2 | 172.4 | 173.9 |
| 167.5° | 153.5 | 155.0 | 156.9 | 158.8 | 159.8 | 161.3 | 163.2 | 165.4 | 167.0 | 168.3 | 169.5 |
| 170°   | 154.4 | 155.0 | 156.6 | 157.9 | 158.5 | 159.4 | 161.0 | 162.6 | 163.5 | 164.8 | 165.4 |
| 172.5° | 155.0 | 155.4 | 156.6 | 157.6 | 157.6 | 157.9 | 158.8 | 160.1 | 160.7 | 161.7 | 162.0 |
| 175°   | 155.4 | 155.7 | 156.3 | 156.9 | 156.6 | 156.6 | 157.2 | 157.9 | 158.2 | 158.8 | 158.8 |
| 177.5° | 155.7 | 155.7 | 156.0 | 156.6 | 156.0 | 155.7 | 156.0 | 156.3 | 156.6 | 156.9 | 156.9 |
| 180°   | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 | 155.7 |

TEST NUMBER: P831257

CATALOG NUMBER: S123DIP-S1165D365U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 165°   | 170°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|
| 0°     | 2953.6 | 2953.6 | 2953.6 | 2953.6 |
| 2.5°   | 2625.3 | 2620.5 | 2601.3 | 2582.1 |
| 5°     | 2225.8 | 2209.3 | 2203.9 | 2198.4 |
| 7.5°   | 1944.8 | 1943.5 | 1914.7 | 1885.9 |
| 10°    | 1697.4 | 1699.5 | 1673.5 | 1647.4 |
| 12.5°  | 1520.6 | 1503.5 | 1501.5 | 1499.4 |
| 15°    | 1387.7 | 1371.9 | 1369.2 | 1366.5 |
| 17.5°  | 1293.8 | 1284.2 | 1281.5 | 1278.7 |
| 20°    | 1222.5 | 1217.1 | 1212.3 | 1207.5 |
| 22.5°  | 1160.9 | 1154.0 | 1149.9 | 1145.8 |
| 25°    | 1101.2 | 1095.1 | 1093.7 | 1092.3 |
| 27.5°  | 1047.8 | 1040.3 | 1040.3 | 1040.3 |
| 30°    | 997.1  | 992.3  | 990.2  | 988.2  |
| 32.5°  | 949.8  | 945.7  | 945.7  | 945.7  |
| 35°    | 905.3  | 903.2  | 900.5  | 897.7  |
| 37.5°  | 864.8  | 864.8  | 863.5  | 862.1  |
| 40°    | 825.8  | 827.8  | 827.8  | 827.8  |
| 42.5°  | 790.1  | 792.2  | 792.2  | 792.2  |
| 45°    | 753.1  | 756.6  | 757.9  | 759.3  |
| 47.5°  | 716.8  | 722.3  | 723.7  | 725.0  |
| 50°    | 681.2  | 685.3  | 686.0  | 686.7  |
| 52.5°  | 644.8  | 649.6  | 653.1  | 656.5  |
| 55°    | 606.5  | 611.3  | 613.3  | 615.4  |
| 57.5°  | 565.4  | 570.2  | 570.8  | 571.5  |
| 60°    | 520.1  | 524.9  | 526.3  | 527.7  |
| 62.5°  | 477.0  | 479.7  | 481.1  | 482.4  |
| 65°    | 427.6  | 431.7  | 434.5  | 437.2  |
| 67.5°  | 380.3  | 383.8  | 383.8  | 383.8  |
| 70°    | 327.6  | 328.9  | 331.0  | 333.0  |
| 72.5°  | 278.9  | 279.6  | 279.6  | 279.6  |
| 75°    | 227.5  | 228.9  | 229.6  | 230.3  |
| 77.5°  | 178.9  | 179.5  | 179.5  | 179.5  |
| 80°    | 130.9  | 130.2  | 130.2  | 130.2  |
| 82.5°  | 89.8   | 87.7   | 87.7   | 87.7   |
| 85°    | 51.4   | 50.7   | 51.4   | 52.1   |
| 87.5°  | 23.3   | 23.3   | 23.3   | 23.3   |
| 90°    | 8.8    | 9.1    | 9.5    | 9.1    |
| 92.5°  | 18.3   | 17.0   | 17.3   | 16.7   |
| 95°    | 42.9   | 40.0   | 37.8   | 36.6   |
| 97.5°  | 98.0   | 86.0   | 78.5   | 75.0   |
| 100°   | 232.6  | 209.6  | 197.3  | 197.6  |
| 102.5° | 348.8  | 331.8  | 322.0  | 312.9  |
| 105°   | 424.5  | 412.5  | 402.4  | 400.8  |
| 107.5° | 471.4  | 465.7  | 461.6  | 458.2  |
| 110°   | 489.7  | 492.2  | 491.6  | 490.9  |

TEST NUMBER: P831257

CATALOG NUMBER: S123DIP-S1165D365U940-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 165°  | 170°  | 175°  | 180°  |
|--------|-------|-------|-------|-------|
| 112.5° | 485.0 | 494.1 | 497.2 | 497.6 |
| 115°   | 465.7 | 479.6 | 485.9 | 487.5 |
| 117.5° | 438.3 | 453.8 | 463.2 | 465.4 |
| 120°   | 409.3 | 427.0 | 434.5 | 436.4 |
| 122.5° | 382.9 | 398.3 | 406.8 | 409.3 |
| 125°   | 360.5 | 374.4 | 382.2 | 384.4 |
| 127.5° | 341.9 | 353.9 | 361.1 | 363.0 |
| 130°   | 324.9 | 336.2 | 342.8 | 345.4 |
| 132.5° | 309.4 | 320.8 | 326.5 | 328.0 |
| 135°   | 294.3 | 303.8 | 309.4 | 311.6 |
| 137.5° | 277.9 | 287.7 | 292.4 | 294.3 |
| 140°   | 262.5 | 271.3 | 276.4 | 276.0 |
| 142.5° | 247.4 | 254.9 | 259.3 | 259.0 |
| 145°   | 233.8 | 240.4 | 243.0 | 243.6 |
| 147.5° | 222.8 | 227.5 | 230.0 | 230.3 |
| 150°   | 213.6 | 217.1 | 219.0 | 219.0 |
| 152.5° | 205.5 | 208.6 | 209.6 | 209.6 |
| 155°   | 198.5 | 201.0 | 201.7 | 202.0 |
| 157.5° | 192.2 | 194.1 | 194.7 | 194.7 |
| 160°   | 186.2 | 188.1 | 188.1 | 187.8 |
| 162.5° | 180.2 | 181.8 | 181.8 | 181.5 |
| 165°   | 175.2 | 176.5 | 176.1 | 176.1 |
| 167.5° | 170.2 | 171.1 | 170.8 | 170.8 |
| 170°   | 165.7 | 166.4 | 166.1 | 166.1 |
| 172.5° | 162.0 | 162.6 | 162.0 | 161.7 |
| 175°   | 158.8 | 159.1 | 158.8 | 158.5 |
| 177.5° | 156.6 | 156.9 | 156.3 | 156.3 |
| 180°   | 155.7 | 155.7 | 155.7 | 155.7 |

TEST NUMBER: P831257

CATALOG NUMBER: S123DIP-S1165D365U940-4F0-1E-UDD-G4

**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 | 18.06            | 19.21 | 18.71 | 19.87 | 20.63 | 20.30          | 21.44 | 20.95 | 22.11 | 22.87 |
|                 | 3H   | 19.73            | 20.76 | 20.39 | 21.43 | 22.23 | 21.74          | 22.77 | 22.41 | 23.44 | 24.24 |
|                 | 4H   | 20.32            | 21.29 | 21.00 | 21.97 | 22.78 | 22.20          | 23.17 | 22.89 | 23.86 | 24.67 |
|                 | 6H   | 20.70            | 21.60 | 21.40 | 22.29 | 23.12 | 22.49          | 23.39 | 23.19 | 24.08 | 24.91 |
|                 | 8H   | 20.81            | 21.66 | 21.52 | 22.37 | 23.20 | 22.56          | 23.41 | 23.27 | 24.13 | 24.96 |
|                 | 12H  | 20.86            | 21.67 | 21.58 | 22.38 | 23.24 | 22.59          | 23.40 | 23.31 | 24.11 | 24.97 |
| 4H              | 2H   | 18.67            | 19.64 | 19.36 | 20.32 | 21.13 | 20.49          | 21.46 | 21.18 | 22.15 | 22.96 |
|                 | 3H   | 20.52            | 21.33 | 21.22 | 22.05 | 22.88 | 22.14          | 22.94 | 22.84 | 23.66 | 24.50 |
|                 | 4H   | 21.23            | 21.96 | 21.95 | 22.69 | 23.55 | 22.73          | 23.46 | 23.45 | 24.19 | 25.05 |
|                 | 6H   | 21.72            | 22.35 | 22.46 | 23.10 | 23.97 | 23.15          | 23.78 | 23.89 | 24.53 | 25.40 |
|                 | 8H   | 21.86            | 22.45 | 22.60 | 23.20 | 24.08 | 23.27          | 23.86 | 24.01 | 24.60 | 25.49 |
|                 | 12H  | 21.94            | 22.47 | 22.70 | 23.24 | 24.13 | 23.32          | 23.85 | 24.09 | 24.63 | 25.51 |
| 8H              | 4H   | 21.52            | 22.11 | 22.26 | 22.85 | 23.74 | 22.86          | 23.45 | 23.60 | 24.19 | 25.08 |
|                 | 6H   | 22.11            | 22.60 | 22.89 | 23.39 | 24.28 | 23.37          | 23.86 | 24.14 | 24.65 | 25.53 |
|                 | 8H   | 22.32            | 22.76 | 23.11 | 23.55 | 24.45 | 23.55          | 23.98 | 24.33 | 24.77 | 25.68 |
|                 | 12H  | 22.46            | 22.84 | 23.24 | 23.62 | 24.58 | 23.66          | 24.05 | 24.45 | 24.83 | 25.79 |
| 12H             | 4H   | 21.53            | 22.06 | 22.29 | 22.83 | 23.72 | 22.84          | 23.37 | 23.61 | 24.14 | 25.03 |
|                 | 6H   | 22.17            | 22.60 | 22.95 | 23.39 | 24.29 | 23.38          | 23.82 | 24.17 | 24.61 | 25.51 |
|                 | 8H   | 22.41            | 22.80 | 23.20 | 23.58 | 24.54 | 23.60          | 23.98 | 24.38 | 24.76 | 25.72 |

END OF REPORT