

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: P831533

Luminaire Tested: S123DIP-S560D585U830-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831533  
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-S560D585U830-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 560 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

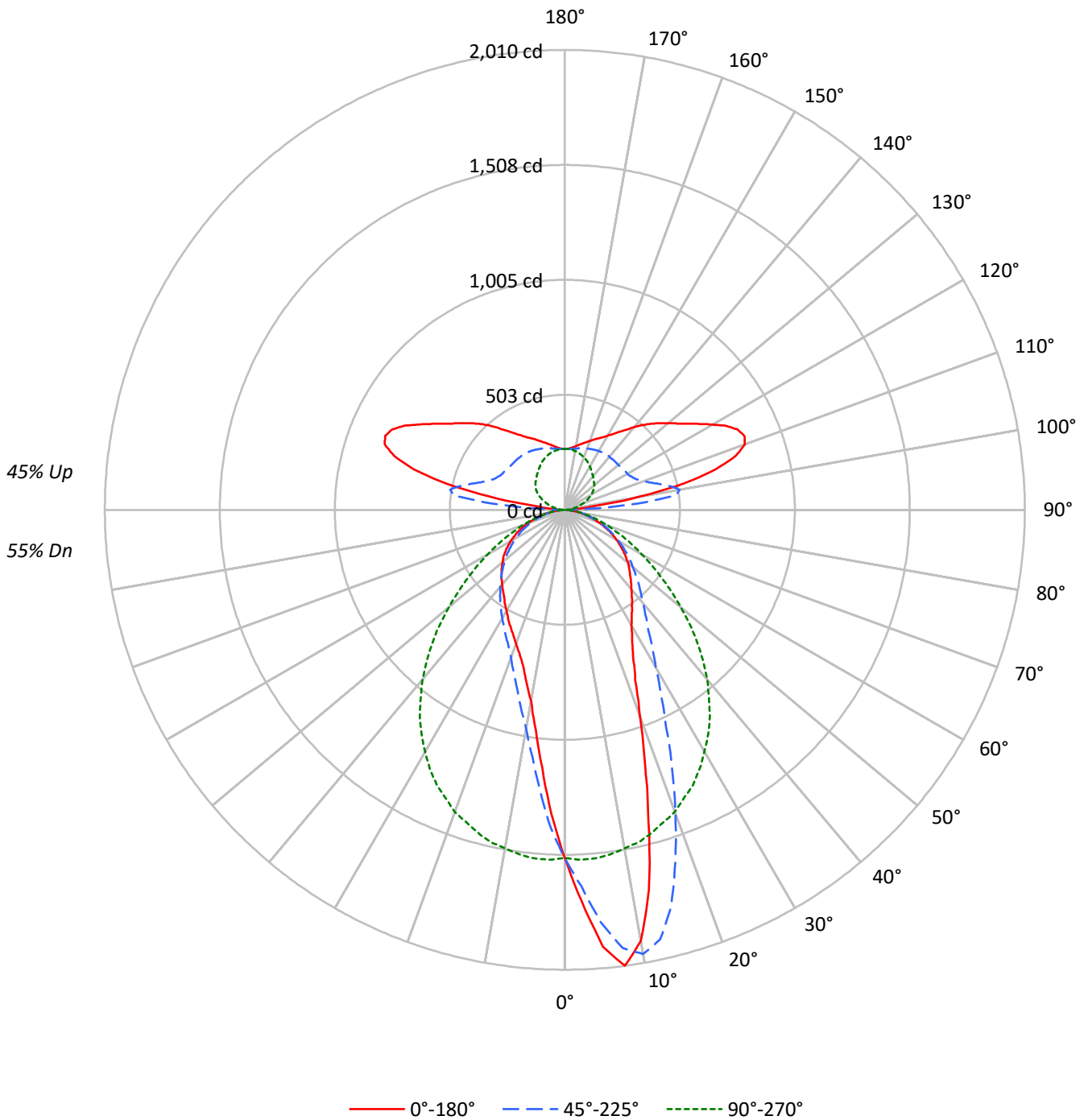
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4444.8 lumens  
Efficiency: N/A  
Efficacy: 127.7 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: General Diffuse  
  
Input Watts (W): 34.8  
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: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

### Luminous Intensity Polar Plot





TEST NUMBER: P831533

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**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   | 108 | 108 | 108 | 108 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 | 55 |    |    |    |   |
| 1   | 99  | 95  | 92  | 88  | 92  | 89  | 86  | 83  | 76 | 74 | 72 | 65 | 63 | 62 | 55 | 53 | 52 | 47 |    |    |    |   |
| 2   | 91  | 84  | 78  | 73  | 84  | 78  | 73  | 69  | 68 | 64 | 61 | 58 | 55 | 53 | 49 | 47 | 45 | 41 |    |    |    |   |
| 3   | 84  | 74  | 67  | 62  | 77  | 70  | 63  | 58  | 60 | 56 | 52 | 52 | 48 | 45 | 44 | 41 | 39 | 35 |    |    |    |   |
| 4   | 77  | 66  | 59  | 53  | 71  | 62  | 55  | 50  | 54 | 49 | 45 | 47 | 43 | 40 | 40 | 37 | 34 | 31 |    |    |    |   |
| 5   | 71  | 60  | 52  | 46  | 66  | 56  | 49  | 44  | 49 | 43 | 39 | 42 | 38 | 35 | 36 | 33 | 31 | 27 |    |    |    |   |
| 6   | 66  | 54  | 46  | 40  | 61  | 51  | 44  | 38  | 44 | 39 | 35 | 39 | 34 | 31 | 33 | 30 | 27 | 25 |    |    |    |   |
| 7   | 61  | 49  | 41  | 36  | 57  | 46  | 39  | 34  | 41 | 35 | 31 | 35 | 31 | 28 | 31 | 27 | 25 | 22 |    |    |    |   |
| 8   | 57  | 45  | 37  | 32  | 53  | 42  | 35  | 31  | 37 | 32 | 28 | 33 | 28 | 25 | 28 | 25 | 22 | 20 |    |    |    |   |
| 9   | 53  | 41  | 34  | 29  | 49  | 39  | 32  | 28  | 34 | 29 | 25 | 30 | 26 | 23 | 26 | 23 | 21 | 19 |    |    |    |   |
| 10  | 50  | 38  | 31  | 26  | 46  | 36  | 30  | 25  | 32 | 27 | 23 | 28 | 24 | 21 | 25 | 21 | 19 | 17 |    |    |    |   |

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

|     | 0°    | 45°   | 90°   | 135°  | 180°  |
|-----|-------|-------|-------|-------|-------|
| 0°  | 16376 | 16376 | 16376 | 16376 | 16376 |
| 5°  | 20710 | 19547 | 16522 | 13315 | 12236 |
| 10° | 20911 | 21544 | 16412 | 10614 | 9275  |
| 15° | 15750 | 20002 | 16301 | 8988  | 7844  |
| 20° | 10974 | 16186 | 16093 | 7860  | 7125  |
| 25° | 8368  | 12447 | 15738 | 7232  | 6683  |
| 30° | 7239  | 9889  | 15171 | 6788  | 6326  |
| 35° | 6716  | 8349  | 14519 | 6466  | 6076  |
| 40° | 6358  | 7489  | 13600 | 6160  | 5991  |
| 45° | 6147  | 6932  | 12434 | 5922  | 5954  |
| 50° | 6042  | 6491  | 11054 | 5704  | 5923  |
| 55° | 5816  | 6167  | 9698  | 5499  | 5949  |
| 60° | 5608  | 5821  | 8359  | 5304  | 5851  |
| 65° | 5270  | 5494  | 7210  | 5096  | 5736  |
| 70° | 4866  | 5076  | 6131  | 4755  | 5401  |
| 75° | 4404  | 4550  | 5257  | 4417  | 4932  |
| 80° | 3632  | 3980  | 4159  | 3849  | 4159  |
| 85° | 2878  | 3223  | 3051  | 3273  | 3310  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 14196 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 143.8  | 3.2       |
| 10°-20°   | 357.8  | 8.1       |
| 20°-30°   | 423.7  | 9.5       |
| 30°-40°   | 426.0  | 9.6       |
| 40°-50°   | 390.8  | 8.8       |
| 50°-60°   | 322.6  | 7.3       |
| 60°-70°   | 228.2  | 5.1       |
| 70°-80°   | 121.8  | 2.7       |
| 80°-90°   | 32.4   | 0.7       |
| 90°-100°  | 144.1  | 3.2       |
| 100°-110° | 421.9  | 9.5       |
| 110°-120° | 412.0  | 9.3       |
| 120°-130° | 328.1  | 7.4       |
| 130°-140° | 258.9  | 5.8       |
| 140°-150° | 193.1  | 4.3       |
| 150°-160° | 134.7  | 3.0       |
| 160°-170° | 79.1   | 1.8       |
| 170°-180° | 25.7   | 0.6       |
| 0°-30°    | 925.3  | 20.8      |
| 0°-40°    | 1351.3 | 30.4      |
| 0°-60°    | 2064.7 | 46.5      |
| 0°-90°    | 2447.1 | 55.1      |
| 90°-120°  | 978.1  | 22.0      |
| 90°-150°  | 1758.2 | 39.6      |
| 90°-180°  | 1998.0 | 45.0      |
| 0°-180°   | 4444.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 1521 | 1521 | 1521 | 1521 | 1521 |      |
| 5°   | 1917 | 1809 | 1529 | 1232 | 1132 | 183  |
| 15°  | 1413 | 1795 | 1463 | 807  | 704  | 390  |
| 25°  | 705  | 1048 | 1325 | 609  | 563  | 333  |
| 35°  | 511  | 635  | 1105 | 492  | 462  | 321  |
| 45°  | 404  | 455  | 817  | 389  | 391  | 313  |
| 55°  | 310  | 329  | 517  | 293  | 317  | 277  |
| 65°  | 207  | 216  | 283  | 200  | 225  | 206  |
| 75°  | 106  | 109  | 126  | 106  | 119  | 111  |
| 85°  | 23   | 26   | 25   | 26   | 27   | 26   |
| 90°  | 16   | 13   | 1    | 13   | 16   | 10   |
| 95°  | 62   | 319  | 18   | 319  | 62   | 101  |
| 105° | 684  | 432  | 62   | 432  | 684  | 682  |
| 115° | 832  | 331  | 110  | 331  | 832  | 811  |
| 125° | 656  | 309  | 153  | 309  | 656  | 594  |
| 135° | 532  | 304  | 180  | 304  | 532  | 412  |
| 145° | 416  | 300  | 205  | 300  | 416  | 264  |
| 155° | 345  | 291  | 233  | 291  | 345  | 161  |
| 165° | 300  | 278  | 254  | 278  | 300  | 86   |
| 175° | 270  | 267  | 265  | 267  | 270  | 26   |
| 180° | 266  | 266  | 266  | 266  | 266  |      |



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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 35°    | 40°    | 45°    | 50°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 |
| 2.5°   | 1714.8 | 1713.0 | 1711.3 | 1702.5 | 1693.6 | 1689.4 | 1685.2 | 1672.5 | 1659.7 | 1645.6 | 1631.5 |
| 5°     | 1916.7 | 1921.7 | 1926.6 | 1921.0 | 1915.3 | 1898.0 | 1880.7 | 1857.8 | 1834.8 | 1809.1 | 1783.3 |
| 7.5°   | 2009.9 | 2012.7 | 2015.6 | 2012.0 | 2008.5 | 2003.9 | 1999.3 | 1978.8 | 1958.4 | 1931.9 | 1905.4 |
| 10°    | 1913.2 | 1919.5 | 1925.9 | 1939.7 | 1953.4 | 1969.0 | 1984.5 | 1981.7 | 1978.8 | 1971.1 | 1963.3 |
| 12.5°  | 1700.7 | 1708.5 | 1716.2 | 1743.8 | 1771.3 | 1806.6 | 1841.9 | 1872.2 | 1902.6 | 1923.8 | 1945.0 |
| 15°    | 1413.4 | 1434.9 | 1456.4 | 1481.5 | 1506.6 | 1558.4 | 1610.3 | 1674.2 | 1738.1 | 1794.9 | 1851.8 |
| 17.5°  | 1164.2 | 1172.3 | 1180.4 | 1207.2 | 1234.0 | 1299.3 | 1364.7 | 1438.4 | 1512.2 | 1606.4 | 1700.7 |
| 20°    | 958.0  | 965.4  | 972.8  | 1008.1 | 1043.4 | 1094.6 | 1145.8 | 1228.8 | 1311.7 | 1413.0 | 1514.3 |
| 22.5°  | 804.8  | 816.5  | 828.1  | 847.9  | 867.6  | 916.7  | 965.8  | 1039.5 | 1113.3 | 1225.2 | 1337.1 |
| 25°    | 704.6  | 713.0  | 721.5  | 733.5  | 745.5  | 784.7  | 823.9  | 884.6  | 945.3  | 1048.0 | 1150.7 |
| 27.5°  | 636.1  | 639.6  | 643.1  | 655.1  | 667.1  | 692.6  | 718.0  | 770.2  | 822.5  | 909.6  | 996.8  |
| 30°    | 582.4  | 584.9  | 587.4  | 598.0  | 608.6  | 625.8  | 643.1  | 680.9  | 718.7  | 795.6  | 872.6  |
| 32.5°  | 545.0  | 546.8  | 548.5  | 556.7  | 564.8  | 577.1  | 589.5  | 617.0  | 644.6  | 708.1  | 771.6  |
| 35°    | 511.1  | 512.2  | 513.2  | 519.2  | 525.2  | 534.4  | 543.6  | 564.4  | 585.3  | 635.4  | 685.5  |
| 37.5°  | 481.5  | 482.9  | 484.3  | 487.8  | 491.4  | 499.5  | 507.6  | 524.2  | 540.8  | 579.3  | 617.7  |
| 40°    | 452.5  | 455.0  | 457.5  | 459.9  | 462.4  | 469.1  | 475.8  | 488.5  | 501.2  | 533.0  | 564.8  |
| 42.5°  | 427.8  | 430.3  | 432.8  | 433.8  | 434.9  | 438.8  | 442.6  | 454.3  | 465.9  | 489.6  | 513.2  |
| 45°    | 403.8  | 404.9  | 405.9  | 407.0  | 408.1  | 411.2  | 414.4  | 424.6  | 434.9  | 455.4  | 475.8  |
| 47.5°  | 381.9  | 381.9  | 381.9  | 382.6  | 383.3  | 386.2  | 389.0  | 396.4  | 403.8  | 419.7  | 435.6  |
| 50°    | 360.8  | 360.8  | 360.8  | 359.7  | 358.6  | 360.4  | 362.2  | 367.8  | 373.5  | 387.6  | 401.7  |
| 52.5°  | 335.3  | 335.3  | 335.3  | 335.7  | 336.0  | 336.0  | 336.0  | 341.0  | 345.9  | 358.6  | 371.3  |
| 55°    | 309.9  | 311.3  | 312.7  | 311.7  | 310.6  | 311.3  | 312.0  | 315.2  | 318.4  | 328.6  | 338.9  |
| 57.5°  | 284.5  | 285.2  | 285.9  | 285.6  | 285.2  | 285.6  | 285.9  | 288.7  | 291.6  | 299.3  | 307.1  |
| 60°    | 260.5  | 260.5  | 260.5  | 259.8  | 259.1  | 259.8  | 260.5  | 261.9  | 263.3  | 270.4  | 277.4  |
| 62.5°  | 233.7  | 234.0  | 234.4  | 234.7  | 235.1  | 234.4  | 233.7  | 235.4  | 237.2  | 242.5  | 247.8  |
| 65°    | 206.9  | 207.2  | 207.6  | 208.6  | 209.7  | 209.0  | 208.3  | 210.0  | 211.8  | 215.7  | 219.6  |
| 67.5°  | 182.8  | 182.1  | 181.4  | 181.8  | 182.1  | 183.2  | 184.3  | 184.6  | 185.0  | 189.2  | 193.4  |
| 70°    | 154.6  | 155.3  | 156.0  | 155.7  | 155.3  | 155.7  | 156.0  | 157.1  | 158.1  | 161.3  | 164.5  |
| 72.5°  | 129.2  | 129.5  | 129.9  | 129.9  | 129.9  | 130.6  | 131.3  | 132.4  | 133.4  | 135.2  | 137.0  |
| 75°    | 105.9  | 105.9  | 105.9  | 106.6  | 107.3  | 107.7  | 108.0  | 108.0  | 108.0  | 109.4  | 110.8  |
| 77.5°  | 80.5   | 82.2   | 84.0   | 83.7   | 83.3   | 84.0   | 84.7   | 85.8   | 86.8   | 87.5   | 88.2   |
| 80°    | 58.6   | 58.6   | 58.6   | 58.9   | 59.3   | 60.4   | 61.4   | 62.1   | 62.8   | 64.2   | 65.7   |
| 82.5°  | 37.4   | 37.8   | 38.1   | 39.2   | 40.2   | 40.9   | 41.7   | 42.7   | 43.8   | 43.8   | 43.8   |
| 85°    | 23.3   | 22.6   | 21.9   | 22.6   | 23.3   | 24.0   | 24.7   | 25.1   | 25.4   | 26.1   | 26.8   |
| 87.5°  | 11.3   | 11.3   | 11.3   | 11.3   | 11.3   | 11.6   | 12.0   | 12.0   | 12.0   | 12.0   | 12.0   |
| 90°    | 15.6   | 16.1   | 15.6   | 15.1   | 15.6   | 14.5   | 14.0   | 13.4   | 12.9   | 13.4   | 11.8   |
| 92.5°  | 28.5   | 29.6   | 29.0   | 31.2   | 32.3   | 36.0   | 41.4   | 53.2   | 74.7   | 100.0  | 110.7  |
| 95°    | 62.4   | 64.5   | 68.3   | 73.1   | 83.3   | 102.7  | 131.2  | 193.5  | 258.6  | 318.8  | 283.9  |
| 97.5°  | 127.9  | 133.9  | 146.8  | 167.2  | 203.2  | 264.5  | 335.5  | 444.6  | 507.0  | 490.3  | 366.1  |
| 100°   | 337.1  | 336.5  | 357.5  | 396.8  | 451.0  | 527.4  | 590.3  | 633.8  | 615.0  | 509.1  | 344.1  |
| 102.5° | 533.8  | 549.4  | 566.1  | 595.1  | 634.4  | 675.8  | 705.9  | 696.7  | 620.4  | 474.2  | 311.8  |
| 105°   | 683.8  | 686.5  | 703.7  | 724.1  | 748.9  | 762.9  | 752.6  | 698.9  | 586.5  | 432.2  | 286.5  |
| 107.5° | 781.7  | 787.6  | 794.6  | 804.3  | 807.5  | 793.0  | 751.0  | 666.6  | 538.1  | 395.1  | 268.3  |
| 110°   | 837.6  | 838.7  | 839.7  | 835.4  | 820.4  | 782.7  | 715.0  | 616.1  | 493.0  | 364.5  | 258.6  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 848.9 | 848.3 | 843.0 | 827.4 | 796.7 | 745.7 | 667.7 | 566.1 | 453.7 | 344.1 | 253.2 |
| 115°   | 831.7 | 829.0 | 818.2 | 794.6 | 754.3 | 695.7 | 616.6 | 523.1 | 423.6 | 330.6 | 252.7 |
| 117.5° | 794.0 | 790.3 | 774.1 | 747.8 | 705.9 | 645.1 | 572.5 | 489.8 | 403.7 | 321.5 | 253.2 |
| 120°   | 744.6 | 741.4 | 728.5 | 698.3 | 655.9 | 601.6 | 537.1 | 464.5 | 388.7 | 315.6 | 255.4 |
| 122.5° | 698.3 | 694.0 | 679.5 | 653.2 | 616.6 | 567.2 | 508.6 | 444.6 | 376.3 | 311.8 | 259.1 |
| 125°   | 655.9 | 652.1 | 638.7 | 615.0 | 580.6 | 537.6 | 486.0 | 427.4 | 366.1 | 308.6 | 262.9 |
| 127.5° | 619.3 | 616.1 | 603.7 | 583.3 | 552.1 | 512.3 | 465.0 | 411.8 | 356.4 | 307.0 | 267.2 |
| 130°   | 589.2 | 584.9 | 573.6 | 554.3 | 525.8 | 489.2 | 445.7 | 397.3 | 348.9 | 305.4 | 271.5 |
| 132.5° | 559.6 | 557.0 | 547.3 | 527.9 | 501.6 | 467.2 | 427.4 | 383.8 | 341.9 | 304.8 | 274.7 |
| 135°   | 531.7 | 527.9 | 518.2 | 502.1 | 475.8 | 445.1 | 410.2 | 372.0 | 336.0 | 304.3 | 277.9 |
| 137.5° | 502.1 | 498.9 | 490.8 | 474.2 | 451.6 | 424.2 | 393.0 | 360.7 | 330.6 | 303.2 | 280.1 |
| 140°   | 470.9 | 471.5 | 462.9 | 447.8 | 427.4 | 404.3 | 378.5 | 351.1 | 325.8 | 302.7 | 282.2 |
| 142.5° | 441.9 | 442.4 | 434.9 | 422.0 | 405.4 | 386.0 | 364.5 | 341.9 | 321.5 | 301.6 | 283.9 |
| 145°   | 415.6 | 414.5 | 410.2 | 398.9 | 385.5 | 369.9 | 352.7 | 334.9 | 317.7 | 300.5 | 284.4 |
| 147.5° | 393.0 | 392.4 | 388.1 | 380.1 | 369.3 | 358.0 | 343.5 | 329.0 | 314.0 | 298.9 | 284.4 |
| 150°   | 373.6 | 373.6 | 370.4 | 364.5 | 356.4 | 346.2 | 334.9 | 322.6 | 310.2 | 296.8 | 284.4 |
| 152.5° | 357.5 | 357.5 | 355.9 | 350.5 | 344.6 | 336.5 | 326.9 | 316.6 | 305.9 | 294.1 | 282.8 |
| 155°   | 344.6 | 344.1 | 343.0 | 338.7 | 333.9 | 327.4 | 319.3 | 310.7 | 301.6 | 290.8 | 281.7 |
| 157.5° | 332.2 | 332.2 | 331.2 | 327.9 | 323.6 | 318.3 | 311.8 | 304.3 | 296.8 | 288.2 | 280.1 |
| 160°   | 320.4 | 320.9 | 320.9 | 317.7 | 314.0 | 310.2 | 304.8 | 298.9 | 291.9 | 284.9 | 279.0 |
| 162.5° | 309.7 | 310.2 | 310.2 | 307.5 | 305.4 | 302.1 | 297.3 | 292.5 | 287.1 | 281.7 | 276.9 |
| 165°   | 300.5 | 300.5 | 301.1 | 298.9 | 296.8 | 294.1 | 290.3 | 287.1 | 282.8 | 278.5 | 274.7 |
| 167.5° | 291.4 | 291.4 | 291.9 | 290.3 | 289.2 | 287.1 | 284.9 | 282.2 | 278.5 | 275.3 | 272.6 |
| 170°   | 283.3 | 283.3 | 283.9 | 282.8 | 282.2 | 281.2 | 279.0 | 277.4 | 274.7 | 272.0 | 270.4 |
| 172.5° | 275.8 | 276.3 | 277.4 | 276.3 | 276.3 | 275.8 | 274.2 | 273.1 | 271.0 | 269.3 | 268.8 |
| 175°   | 270.4 | 271.0 | 271.5 | 271.0 | 271.0 | 271.0 | 269.9 | 269.3 | 268.3 | 267.2 | 267.2 |
| 177.5° | 266.7 | 266.7 | 267.7 | 267.2 | 267.7 | 267.7 | 267.2 | 266.7 | 266.1 | 265.6 | 266.1 |
| 180°   | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 |



TEST NUMBER: P831533

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**CANDELA DISTRIBUTION (continued):**

|        | 55°    | 60°    | 65°    | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    | 100°   | 105°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 |
| 2.5°   | 1627.3 | 1623.0 | 1607.5 | 1592.0 | 1574.3 | 1556.7 | 1543.6 | 1530.6 | 1511.1 | 1491.7 | 1475.8 |
| 5°     | 1763.5 | 1743.8 | 1710.9 | 1678.1 | 1633.6 | 1589.2 | 1559.1 | 1529.1 | 1488.9 | 1448.7 | 1416.5 |
| 7.5°   | 1871.5 | 1837.7 | 1791.8 | 1745.9 | 1687.6 | 1629.4 | 1574.3 | 1519.3 | 1457.8 | 1396.4 | 1346.3 |
| 10°    | 1940.4 | 1917.4 | 1864.5 | 1811.5 | 1733.5 | 1655.5 | 1578.6 | 1501.6 | 1422.5 | 1343.5 | 1277.1 |
| 12.5°  | 1947.1 | 1949.2 | 1900.5 | 1851.8 | 1763.5 | 1675.3 | 1581.7 | 1488.2 | 1388.7 | 1289.1 | 1211.8 |
| 15°    | 1888.1 | 1924.5 | 1897.7 | 1870.8 | 1781.9 | 1692.9 | 1577.9 | 1462.8 | 1348.1 | 1233.3 | 1144.0 |
| 17.5°  | 1778.7 | 1856.7 | 1860.6 | 1864.5 | 1775.5 | 1686.6 | 1559.1 | 1431.7 | 1301.8 | 1171.9 | 1078.0 |
| 20°    | 1629.4 | 1744.5 | 1784.0 | 1823.5 | 1751.2 | 1678.8 | 1541.9 | 1404.9 | 1259.5 | 1114.0 | 1015.5 |
| 22.5°  | 1476.9 | 1616.7 | 1689.0 | 1761.4 | 1707.8 | 1654.1 | 1508.3 | 1362.5 | 1209.0 | 1055.4 | 955.5  |
| 25°    | 1303.2 | 1455.7 | 1566.9 | 1678.1 | 1645.3 | 1612.4 | 1468.8 | 1325.1 | 1161.7 | 998.2  | 896.2  |
| 27.5°  | 1151.8 | 1306.8 | 1440.9 | 1575.0 | 1568.0 | 1560.9 | 1418.3 | 1275.7 | 1108.4 | 941.1  | 842.6  |
| 30°    | 1017.0 | 1161.3 | 1311.3 | 1461.4 | 1478.7 | 1496.0 | 1358.3 | 1220.6 | 1053.0 | 885.3  | 790.3  |
| 32.5°  | 897.6  | 1023.7 | 1184.6 | 1345.6 | 1379.5 | 1413.4 | 1289.1 | 1164.9 | 999.0  | 833.1  | 741.6  |
| 35°    | 799.9  | 914.2  | 1075.2 | 1236.2 | 1278.5 | 1320.9 | 1212.9 | 1104.9 | 943.2  | 781.5  | 694.3  |
| 37.5°  | 713.4  | 809.0  | 966.1  | 1123.2 | 1175.1 | 1227.0 | 1130.3 | 1033.5 | 882.1  | 730.7  | 650.6  |
| 40°    | 641.7  | 718.7  | 863.1  | 1007.4 | 1067.4 | 1127.4 | 1047.7 | 967.9  | 824.2  | 680.6  | 606.8  |
| 42.5°  | 581.7  | 650.2  | 781.2  | 912.1  | 969.7  | 1027.2 | 959.8  | 892.4  | 764.6  | 636.8  | 569.4  |
| 45°    | 530.5  | 585.3  | 704.2  | 823.2  | 877.9  | 932.6  | 874.7  | 816.8  | 704.2  | 591.6  | 528.8  |
| 47.5°  | 482.5  | 529.5  | 631.1  | 732.8  | 781.5  | 830.2  | 785.0  | 739.9  | 644.6  | 549.2  | 492.4  |
| 50°    | 439.5  | 477.2  | 566.2  | 655.1  | 697.5  | 739.9  | 700.0  | 660.1  | 581.7  | 503.4  | 453.9  |
| 52.5°  | 402.1  | 432.8  | 507.2  | 581.7  | 618.1  | 654.4  | 620.2  | 586.0  | 523.8  | 461.7  | 418.6  |
| 55°    | 365.0  | 391.1  | 455.7  | 520.3  | 545.0  | 569.7  | 543.2  | 516.8  | 466.6  | 416.5  | 380.2  |
| 57.5°  | 330.4  | 353.7  | 406.6  | 459.6  | 478.7  | 497.7  | 473.7  | 449.7  | 411.9  | 374.2  | 343.8  |
| 60°    | 296.5  | 315.6  | 359.7  | 403.8  | 415.5  | 427.1  | 407.7  | 388.3  | 361.8  | 335.3  | 308.2  |
| 62.5°  | 265.1  | 282.4  | 315.2  | 348.0  | 355.8  | 363.6  | 348.8  | 333.9  | 313.8  | 293.7  | 272.5  |
| 65°    | 232.6  | 245.7  | 272.5  | 299.3  | 304.3  | 309.2  | 296.2  | 283.1  | 267.9  | 252.7  | 237.2  |
| 67.5°  | 202.6  | 211.8  | 233.7  | 255.6  | 255.9  | 256.3  | 245.7  | 235.1  | 226.6  | 218.1  | 205.8  |
| 70°    | 173.3  | 182.1  | 196.6  | 211.1  | 211.4  | 211.8  | 203.3  | 194.8  | 188.5  | 182.1  | 173.0  |
| 72.5°  | 143.3  | 149.7  | 160.6  | 171.6  | 170.8  | 170.1  | 164.8  | 159.6  | 154.6  | 149.7  | 143.0  |
| 75°    | 116.1  | 121.4  | 128.8  | 136.3  | 134.1  | 132.0  | 129.2  | 126.4  | 122.1  | 117.9  | 113.7  |
| 77.5°  | 91.4   | 94.6   | 98.8   | 103.1  | 101.7  | 100.2  | 97.8   | 95.3   | 92.1   | 89.0   | 87.2   |
| 80°    | 67.1   | 68.5   | 71.3   | 74.1   | 73.4   | 72.7   | 69.9   | 67.1   | 66.4   | 65.7   | 63.2   |
| 82.5°  | 45.5   | 47.3   | 48.0   | 48.7   | 48.4   | 48.0   | 45.9   | 43.8   | 43.1   | 42.4   | 42.0   |
| 85°    | 27.2   | 27.5   | 27.9   | 28.2   | 27.2   | 26.1   | 25.4   | 24.7   | 24.7   | 24.7   | 24.4   |
| 87.5°  | 12.4   | 12.7   | 12.7   | 12.7   | 12.4   | 12.0   | 11.3   | 10.6   | 10.9   | 11.3   | 11.3   |
| 90°    | 10.2   | 8.6    | 7.0    | 5.9    | 4.8    | 3.2    | 2.2    | 1.1    | 2.2    | 3.2    | 4.8    |
| 92.5°  | 82.8   | 54.3   | 37.1   | 27.4   | 22.0   | 17.2   | 11.8   | 8.1    | 11.8   | 17.2   | 22.0   |
| 95°    | 195.7  | 115.6  | 69.9   | 48.9   | 34.9   | 25.8   | 19.9   | 18.3   | 19.9   | 25.8   | 34.9   |
| 97.5°  | 217.7  | 124.7  | 79.6   | 56.4   | 42.5   | 34.4   | 29.6   | 29.0   | 29.6   | 34.4   | 42.5   |
| 100°   | 202.7  | 123.1  | 85.5   | 64.5   | 51.6   | 44.1   | 40.3   | 39.8   | 40.3   | 44.1   | 51.6   |
| 102.5° | 189.8  | 125.3  | 92.5   | 73.7   | 62.4   | 55.4   | 52.1   | 51.1   | 52.1   | 55.4   | 62.4   |
| 105°   | 184.9  | 129.6  | 100.5  | 83.9   | 73.7   | 67.2   | 64.0   | 62.4   | 64.0   | 67.2   | 73.7   |
| 107.5° | 183.9  | 136.6  | 110.7  | 95.2   | 85.5   | 79.0   | 75.8   | 74.2   | 75.8   | 79.0   | 85.5   |
| 110°   | 186.5  | 145.7  | 121.5  | 106.4  | 97.3   | 91.4   | 88.7   | 87.1   | 88.7   | 91.4   | 97.3   |





TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   | 95°   | 100°  | 105°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 191.9 | 154.8 | 132.8 | 118.3 | 109.1 | 103.2 | 100.5 | 98.9  | 100.5 | 103.2 | 109.1 |
| 115°   | 197.8 | 165.0 | 144.6 | 130.1 | 121.0 | 115.6 | 112.4 | 110.2 | 112.4 | 115.6 | 121.0 |
| 117.5° | 205.4 | 175.8 | 155.4 | 141.9 | 131.7 | 126.9 | 124.2 | 121.5 | 124.2 | 126.9 | 131.7 |
| 120°   | 214.0 | 186.0 | 166.7 | 153.2 | 143.0 | 137.6 | 134.9 | 133.3 | 134.9 | 137.6 | 143.0 |
| 122.5° | 222.0 | 196.8 | 177.9 | 163.4 | 153.8 | 147.8 | 145.2 | 143.5 | 145.2 | 147.8 | 153.8 |
| 125°   | 230.6 | 207.0 | 188.2 | 173.6 | 163.4 | 157.5 | 154.3 | 153.2 | 154.3 | 157.5 | 163.4 |
| 127.5° | 237.6 | 216.1 | 197.8 | 183.3 | 172.0 | 166.1 | 162.4 | 160.7 | 162.4 | 166.1 | 172.0 |
| 130°   | 244.6 | 224.2 | 206.4 | 191.9 | 180.6 | 174.2 | 169.3 | 167.7 | 169.3 | 174.2 | 180.6 |
| 132.5° | 251.1 | 231.2 | 214.0 | 200.0 | 188.7 | 180.6 | 175.3 | 173.1 | 175.3 | 180.6 | 188.7 |
| 135°   | 256.4 | 238.2 | 221.5 | 207.0 | 195.7 | 187.6 | 181.7 | 179.6 | 181.7 | 187.6 | 195.7 |
| 137.5° | 260.7 | 243.0 | 226.9 | 213.4 | 202.1 | 193.5 | 187.6 | 185.5 | 187.6 | 193.5 | 202.1 |
| 140°   | 264.0 | 247.8 | 232.2 | 218.8 | 208.1 | 199.5 | 194.1 | 191.4 | 194.1 | 199.5 | 208.1 |
| 142.5° | 267.2 | 251.6 | 236.5 | 224.2 | 213.4 | 205.9 | 200.0 | 197.8 | 200.0 | 205.9 | 213.4 |
| 145°   | 269.3 | 254.8 | 240.8 | 228.5 | 219.3 | 211.3 | 206.4 | 204.8 | 206.4 | 211.3 | 219.3 |
| 147.5° | 271.0 | 257.5 | 244.6 | 233.9 | 224.7 | 217.7 | 212.9 | 211.8 | 212.9 | 217.7 | 224.7 |
| 150°   | 271.5 | 260.2 | 247.8 | 238.2 | 230.6 | 223.6 | 219.3 | 218.8 | 219.3 | 223.6 | 230.6 |
| 152.5° | 272.6 | 261.8 | 251.6 | 242.5 | 236.0 | 230.1 | 225.8 | 225.8 | 225.8 | 230.1 | 236.0 |
| 155°   | 272.6 | 264.0 | 254.8 | 247.3 | 241.4 | 236.0 | 232.8 | 232.8 | 232.8 | 236.0 | 241.4 |
| 157.5° | 273.1 | 265.0 | 257.5 | 251.6 | 246.2 | 241.4 | 238.7 | 238.2 | 238.7 | 241.4 | 246.2 |
| 160°   | 273.1 | 266.7 | 260.2 | 254.8 | 251.1 | 246.8 | 244.6 | 244.6 | 244.6 | 246.8 | 251.1 |
| 162.5° | 272.6 | 267.2 | 261.8 | 257.5 | 254.3 | 251.1 | 249.4 | 249.4 | 249.4 | 251.1 | 254.3 |
| 165°   | 271.5 | 267.7 | 263.4 | 259.7 | 257.5 | 254.8 | 253.7 | 254.3 | 253.7 | 254.8 | 257.5 |
| 167.5° | 271.0 | 267.7 | 264.5 | 261.8 | 260.2 | 258.0 | 257.5 | 258.0 | 257.5 | 258.0 | 260.2 |
| 170°   | 269.3 | 267.2 | 264.5 | 263.4 | 262.3 | 260.7 | 260.2 | 261.3 | 260.2 | 260.7 | 262.3 |
| 172.5° | 268.8 | 267.2 | 265.0 | 264.5 | 264.0 | 262.9 | 262.9 | 263.4 | 262.9 | 262.9 | 264.0 |
| 175°   | 267.7 | 266.7 | 265.6 | 265.0 | 265.0 | 264.0 | 264.5 | 265.0 | 264.5 | 264.0 | 265.0 |
| 177.5° | 267.2 | 266.1 | 265.6 | 265.6 | 265.6 | 265.0 | 265.6 | 266.1 | 265.6 | 265.0 | 265.6 |
| 180°   | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 |



TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 110°   | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   | 150°   | 155°   | 160°   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 | 1521.4 |
| 2.5°   | 1460.0 | 1446.2 | 1432.4 | 1421.8 | 1411.2 | 1393.2 | 1375.2 | 1371.0 | 1366.8 | 1360.8 | 1354.8 |
| 5°     | 1384.4 | 1350.5 | 1316.6 | 1286.3 | 1255.9 | 1232.3 | 1208.6 | 1193.1 | 1177.6 | 1166.3 | 1155.0 |
| 7.5°   | 1296.2 | 1245.3 | 1194.5 | 1158.5 | 1122.5 | 1088.3 | 1054.0 | 1043.1 | 1032.1 | 1017.3 | 1002.5 |
| 10°    | 1210.7 | 1154.6 | 1098.5 | 1051.6 | 1004.6 | 971.1  | 937.5  | 924.1  | 910.7  | 892.0  | 873.3  |
| 12.5°  | 1134.5 | 1073.1 | 1011.7 | 964.4  | 917.1  | 884.6  | 852.1  | 832.7  | 813.3  | 802.7  | 792.1  |
| 15°    | 1054.7 | 989.1  | 923.4  | 879.6  | 835.9  | 806.6  | 777.3  | 760.3  | 743.4  | 733.2  | 722.9  |
| 17.5°  | 984.1  | 919.2  | 854.2  | 812.2  | 770.2  | 743.4  | 716.6  | 701.7  | 686.9  | 679.1  | 671.4  |
| 20°    | 917.1  | 853.5  | 790.0  | 749.0  | 708.1  | 686.2  | 664.3  | 654.8  | 645.3  | 638.9  | 632.6  |
| 22.5°  | 855.6  | 793.2  | 730.7  | 695.7  | 660.8  | 643.1  | 625.5  | 618.8  | 612.1  | 606.8  | 601.5  |
| 25°    | 794.2  | 738.5  | 682.7  | 653.0  | 623.4  | 608.9  | 594.4  | 587.7  | 581.0  | 575.7  | 570.4  |
| 27.5°  | 744.1  | 690.8  | 637.5  | 612.1  | 586.7  | 575.4  | 564.1  | 558.8  | 553.5  | 548.5  | 543.6  |
| 30°    | 695.4  | 647.7  | 600.1  | 578.2  | 556.3  | 546.1  | 535.8  | 530.5  | 525.2  | 520.7  | 516.1  |
| 32.5°  | 650.2  | 609.3  | 568.3  | 548.2  | 528.1  | 519.6  | 511.1  | 504.8  | 498.4  | 494.9  | 491.4  |
| 35°    | 607.1  | 570.4  | 533.7  | 517.1  | 500.5  | 492.1  | 483.6  | 478.3  | 473.0  | 470.2  | 467.4  |
| 37.5°  | 570.4  | 537.6  | 504.8  | 488.9  | 473.0  | 464.9  | 456.8  | 452.2  | 447.6  | 446.5  | 445.5  |
| 40°    | 533.0  | 504.8  | 476.5  | 461.0  | 445.5  | 438.4  | 431.4  | 428.5  | 425.7  | 425.0  | 424.3  |
| 42.5°  | 501.9  | 474.4  | 446.9  | 432.8  | 418.6  | 412.6  | 406.6  | 405.2  | 403.8  | 404.9  | 405.9  |
| 45°    | 465.9  | 443.0  | 420.1  | 407.0  | 393.9  | 389.0  | 384.1  | 383.0  | 381.9  | 384.1  | 386.2  |
| 47.5°  | 435.6  | 414.4  | 393.2  | 380.9  | 368.5  | 365.0  | 361.5  | 361.1  | 360.8  | 363.6  | 366.4  |
| 50°    | 404.5  | 384.1  | 363.6  | 353.7  | 343.8  | 340.6  | 337.5  | 338.5  | 339.6  | 344.2  | 348.8  |
| 52.5°  | 375.6  | 356.5  | 337.5  | 328.3  | 319.1  | 317.0  | 314.9  | 317.3  | 319.8  | 324.7  | 329.7  |
| 55°    | 343.8  | 326.5  | 309.2  | 302.2  | 295.1  | 293.0  | 290.9  | 295.8  | 300.7  | 305.3  | 309.9  |
| 57.5°  | 313.5  | 298.3  | 283.1  | 276.7  | 270.4  | 270.0  | 269.7  | 274.3  | 278.9  | 283.8  | 288.7  |
| 60°    | 281.0  | 268.3  | 255.6  | 250.6  | 245.7  | 246.4  | 247.1  | 252.4  | 257.7  | 261.6  | 265.4  |
| 62.5°  | 251.3  | 240.7  | 230.1  | 225.6  | 221.0  | 222.7  | 224.5  | 229.8  | 235.1  | 239.7  | 244.3  |
| 65°    | 221.7  | 212.9  | 204.0  | 200.8  | 197.7  | 200.1  | 202.6  | 207.2  | 211.8  | 215.0  | 218.1  |
| 67.5°  | 193.4  | 186.0  | 178.6  | 176.1  | 173.7  | 176.1  | 178.6  | 183.2  | 187.8  | 191.0  | 194.1  |
| 70°    | 163.8  | 157.8  | 151.8  | 150.0  | 148.3  | 151.1  | 153.9  | 157.8  | 161.7  | 164.8  | 168.0  |
| 72.5°  | 136.3  | 131.7  | 127.1  | 126.7  | 126.4  | 128.8  | 131.3  | 135.2  | 139.1  | 141.2  | 143.3  |
| 75°    | 109.4  | 107.0  | 104.5  | 104.1  | 103.8  | 106.2  | 108.7  | 110.8  | 113.0  | 114.7  | 116.5  |
| 77.5°  | 85.4   | 83.3   | 81.2   | 81.5   | 81.9   | 83.7   | 85.4   | 87.5   | 89.7   | 90.7   | 91.8   |
| 80°    | 60.7   | 60.0   | 59.3   | 60.0   | 60.7   | 62.1   | 63.5   | 64.9   | 66.4   | 67.1   | 67.8   |
| 82.5°  | 41.7   | 40.9   | 40.2   | 41.3   | 42.4   | 43.4   | 44.5   | 45.5   | 46.6   | 46.9   | 47.3   |
| 85°    | 24.0   | 25.1   | 26.1   | 26.1   | 26.1   | 26.5   | 26.8   | 27.2   | 27.5   | 27.2   | 26.8   |
| 87.5°  | 11.3   | 11.6   | 12.0   | 12.0   | 12.0   | 12.4   | 12.7   | 12.7   | 12.7   | 12.4   | 12.0   |
| 90°    | 5.9    | 7.0    | 8.6    | 10.2   | 11.8   | 13.4   | 12.9   | 13.4   | 14.0   | 14.5   | 15.6   |
| 92.5°  | 27.4   | 37.1   | 54.3   | 82.8   | 110.7  | 100.0  | 74.7   | 53.2   | 41.4   | 36.0   | 32.3   |
| 95°    | 48.9   | 69.9   | 115.6  | 195.7  | 283.9  | 318.8  | 258.6  | 193.5  | 131.2  | 102.7  | 83.3   |
| 97.5°  | 56.4   | 79.6   | 124.7  | 217.7  | 366.1  | 490.3  | 507.0  | 444.6  | 335.5  | 264.5  | 203.2  |
| 100°   | 64.5   | 85.5   | 123.1  | 202.7  | 344.1  | 509.1  | 615.0  | 633.8  | 590.3  | 527.4  | 451.0  |
| 102.5° | 73.7   | 92.5   | 125.3  | 189.8  | 311.8  | 474.2  | 620.4  | 696.7  | 705.9  | 675.8  | 634.4  |
| 105°   | 83.9   | 100.5  | 129.6  | 184.9  | 286.5  | 432.2  | 586.5  | 698.9  | 752.6  | 762.9  | 748.9  |
| 107.5° | 95.2   | 110.7  | 136.6  | 183.9  | 268.3  | 395.1  | 538.1  | 666.6  | 751.0  | 793.0  | 807.5  |
| 110°   | 106.4  | 121.5  | 145.7  | 186.5  | 258.6  | 364.5  | 493.0  | 616.1  | 715.0  | 782.7  | 820.4  |



TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 110°  | 115°  | 120°  | 125°  | 130°  | 135°  | 140°  | 145°  | 150°  | 155°  | 160°  |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 118.3 | 132.8 | 154.8 | 191.9 | 253.2 | 344.1 | 453.7 | 566.1 | 667.7 | 745.7 | 796.7 |
| 115°   | 130.1 | 144.6 | 165.0 | 197.8 | 252.7 | 330.6 | 423.6 | 523.1 | 616.6 | 695.7 | 754.3 |
| 117.5° | 141.9 | 155.4 | 175.8 | 205.4 | 253.2 | 321.5 | 403.7 | 489.8 | 572.5 | 645.1 | 705.9 |
| 120°   | 153.2 | 166.7 | 186.0 | 214.0 | 255.4 | 315.6 | 388.7 | 464.5 | 537.1 | 601.6 | 655.9 |
| 122.5° | 163.4 | 177.9 | 196.8 | 222.0 | 259.1 | 311.8 | 376.3 | 444.6 | 508.6 | 567.2 | 616.6 |
| 125°   | 173.6 | 188.2 | 207.0 | 230.6 | 262.9 | 308.6 | 366.1 | 427.4 | 486.0 | 537.6 | 580.6 |
| 127.5° | 183.3 | 197.8 | 216.1 | 237.6 | 267.2 | 307.0 | 356.4 | 411.8 | 465.0 | 512.3 | 552.1 |
| 130°   | 191.9 | 206.4 | 224.2 | 244.6 | 271.5 | 305.4 | 348.9 | 397.3 | 445.7 | 489.2 | 525.8 |
| 132.5° | 200.0 | 214.0 | 231.2 | 251.1 | 274.7 | 304.8 | 341.9 | 383.8 | 427.4 | 467.2 | 501.6 |
| 135°   | 207.0 | 221.5 | 238.2 | 256.4 | 277.9 | 304.3 | 336.0 | 372.0 | 410.2 | 445.1 | 475.8 |
| 137.5° | 213.4 | 226.9 | 243.0 | 260.7 | 280.1 | 303.2 | 330.6 | 360.7 | 393.0 | 424.2 | 451.6 |
| 140°   | 218.8 | 232.2 | 247.8 | 264.0 | 282.2 | 302.7 | 325.8 | 351.1 | 378.5 | 404.3 | 427.4 |
| 142.5° | 224.2 | 236.5 | 251.6 | 267.2 | 283.9 | 301.6 | 321.5 | 341.9 | 364.5 | 386.0 | 405.4 |
| 145°   | 228.5 | 240.8 | 254.8 | 269.3 | 284.4 | 300.5 | 317.7 | 334.9 | 352.7 | 369.9 | 385.5 |
| 147.5° | 233.9 | 244.6 | 257.5 | 271.0 | 284.4 | 298.9 | 314.0 | 329.0 | 343.5 | 358.0 | 369.3 |
| 150°   | 238.2 | 247.8 | 260.2 | 271.5 | 284.4 | 296.8 | 310.2 | 322.6 | 334.9 | 346.2 | 356.4 |
| 152.5° | 242.5 | 251.6 | 261.8 | 272.6 | 282.8 | 294.1 | 305.9 | 316.6 | 326.9 | 336.5 | 344.6 |
| 155°   | 247.3 | 254.8 | 264.0 | 272.6 | 281.7 | 290.8 | 301.6 | 310.7 | 319.3 | 327.4 | 333.9 |
| 157.5° | 251.6 | 257.5 | 265.0 | 273.1 | 280.1 | 288.2 | 296.8 | 304.3 | 311.8 | 318.3 | 323.6 |
| 160°   | 254.8 | 260.2 | 266.7 | 273.1 | 279.0 | 284.9 | 291.9 | 298.9 | 304.8 | 310.2 | 314.0 |
| 162.5° | 257.5 | 261.8 | 267.2 | 272.6 | 276.9 | 281.7 | 287.1 | 292.5 | 297.3 | 302.1 | 305.4 |
| 165°   | 259.7 | 263.4 | 267.7 | 271.5 | 274.7 | 278.5 | 282.8 | 287.1 | 290.3 | 294.1 | 296.8 |
| 167.5° | 261.8 | 264.5 | 267.7 | 271.0 | 272.6 | 275.3 | 278.5 | 282.2 | 284.9 | 287.1 | 289.2 |
| 170°   | 263.4 | 264.5 | 267.2 | 269.3 | 270.4 | 272.0 | 274.7 | 277.4 | 279.0 | 281.2 | 282.2 |
| 172.5° | 264.5 | 265.0 | 267.2 | 268.8 | 268.8 | 269.3 | 271.0 | 273.1 | 274.2 | 275.8 | 276.3 |
| 175°   | 265.0 | 265.6 | 266.7 | 267.7 | 267.2 | 267.2 | 268.3 | 269.3 | 269.9 | 271.0 | 271.0 |
| 177.5° | 265.6 | 265.6 | 266.1 | 267.2 | 266.1 | 265.6 | 266.1 | 266.7 | 267.2 | 267.7 | 267.7 |
| 180°   | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 | 265.6 |



TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 165°   | 170°   | 175°   | 180°   |
|--------|--------|--------|--------|--------|
| 0°     | 1521.4 | 1521.4 | 1521.4 | 1521.4 |
| 2.5°   | 1352.3 | 1349.8 | 1339.9 | 1330.1 |
| 5°     | 1146.5 | 1138.0 | 1135.2 | 1132.4 |
| 7.5°   | 1001.8 | 1001.1 | 986.2  | 971.4  |
| 10°    | 874.4  | 875.4  | 862.0  | 848.6  |
| 12.5°  | 783.3  | 774.5  | 773.4  | 772.3  |
| 15°    | 714.8  | 706.7  | 705.3  | 703.9  |
| 17.5°  | 666.4  | 661.5  | 660.1  | 658.7  |
| 20°    | 629.7  | 626.9  | 624.4  | 622.0  |
| 22.5°  | 598.0  | 594.4  | 592.3  | 590.2  |
| 25°    | 567.3  | 564.1  | 563.4  | 562.7  |
| 27.5°  | 539.7  | 535.8  | 535.8  | 535.8  |
| 30°    | 513.6  | 511.1  | 510.1  | 509.0  |
| 32.5°  | 489.2  | 487.1  | 487.1  | 487.1  |
| 35°    | 466.3  | 465.2  | 463.8  | 462.4  |
| 37.5°  | 445.5  | 445.5  | 444.8  | 444.1  |
| 40°    | 425.4  | 426.4  | 426.4  | 426.4  |
| 42.5°  | 407.0  | 408.1  | 408.1  | 408.1  |
| 45°    | 387.9  | 389.7  | 390.4  | 391.1  |
| 47.5°  | 369.2  | 372.0  | 372.8  | 373.5  |
| 50°    | 350.9  | 353.0  | 353.3  | 353.7  |
| 52.5°  | 332.2  | 334.6  | 336.4  | 338.2  |
| 55°    | 312.4  | 314.9  | 315.9  | 317.0  |
| 57.5°  | 291.2  | 293.7  | 294.0  | 294.4  |
| 60°    | 267.9  | 270.4  | 271.1  | 271.8  |
| 62.5°  | 245.7  | 247.1  | 247.8  | 248.5  |
| 65°    | 220.3  | 222.4  | 223.8  | 225.2  |
| 67.5°  | 195.9  | 197.7  | 197.7  | 197.7  |
| 70°    | 168.7  | 169.4  | 170.5  | 171.6  |
| 72.5°  | 143.7  | 144.0  | 144.0  | 144.0  |
| 75°    | 117.2  | 117.9  | 118.3  | 118.6  |
| 77.5°  | 92.1   | 92.5   | 92.5   | 92.5   |
| 80°    | 67.4   | 67.1   | 67.1   | 67.1   |
| 82.5°  | 46.2   | 45.2   | 45.2   | 45.2   |
| 85°    | 26.5   | 26.1   | 26.5   | 26.8   |
| 87.5°  | 12.0   | 12.0   | 12.0   | 12.0   |
| 90°    | 15.1   | 15.6   | 16.1   | 15.6   |
| 92.5°  | 31.2   | 29.0   | 29.6   | 28.5   |
| 95°    | 73.1   | 68.3   | 64.5   | 62.4   |
| 97.5°  | 167.2  | 146.8  | 133.9  | 127.9  |
| 100°   | 396.8  | 357.5  | 336.5  | 337.1  |
| 102.5° | 595.1  | 566.1  | 549.4  | 533.8  |
| 105°   | 724.1  | 703.7  | 686.5  | 683.8  |
| 107.5° | 804.3  | 794.6  | 787.6  | 781.7  |
| 110°   | 835.4  | 839.7  | 838.7  | 837.6  |



TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

|        | 165°  | 170°  | 175°  | 180°  |
|--------|-------|-------|-------|-------|
| 112.5° | 827.4 | 843.0 | 848.3 | 848.9 |
| 115°   | 794.6 | 818.2 | 829.0 | 831.7 |
| 117.5° | 747.8 | 774.1 | 790.3 | 794.0 |
| 120°   | 698.3 | 728.5 | 741.4 | 744.6 |
| 122.5° | 653.2 | 679.5 | 694.0 | 698.3 |
| 125°   | 615.0 | 638.7 | 652.1 | 655.9 |
| 127.5° | 583.3 | 603.7 | 616.1 | 619.3 |
| 130°   | 554.3 | 573.6 | 584.9 | 589.2 |
| 132.5° | 527.9 | 547.3 | 557.0 | 559.6 |
| 135°   | 502.1 | 518.2 | 527.9 | 531.7 |
| 137.5° | 474.2 | 490.8 | 498.9 | 502.1 |
| 140°   | 447.8 | 462.9 | 471.5 | 470.9 |
| 142.5° | 422.0 | 434.9 | 442.4 | 441.9 |
| 145°   | 398.9 | 410.2 | 414.5 | 415.6 |
| 147.5° | 380.1 | 388.1 | 392.4 | 393.0 |
| 150°   | 364.5 | 370.4 | 373.6 | 373.6 |
| 152.5° | 350.5 | 355.9 | 357.5 | 357.5 |
| 155°   | 338.7 | 343.0 | 344.1 | 344.6 |
| 157.5° | 327.9 | 331.2 | 332.2 | 332.2 |
| 160°   | 317.7 | 320.9 | 320.9 | 320.4 |
| 162.5° | 307.5 | 310.2 | 310.2 | 309.7 |
| 165°   | 298.9 | 301.1 | 300.5 | 300.5 |
| 167.5° | 290.3 | 291.9 | 291.4 | 291.4 |
| 170°   | 282.8 | 283.9 | 283.3 | 283.3 |
| 172.5° | 276.3 | 277.4 | 276.3 | 275.8 |
| 175°   | 271.0 | 271.5 | 271.0 | 270.4 |
| 177.5° | 267.2 | 267.7 | 266.7 | 266.7 |
| 180°   | 265.6 | 265.6 | 265.6 | 265.6 |



TEST NUMBER: P831533

CATALOG NUMBER: S123DIP-S560D585U830-4F0-1E-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 | 13.74            | 14.61 | 14.66 | 15.54 | 16.74 | 15.98          | 16.85 | 16.90 | 17.78 | 18.98 |
|                 | 3H   | 15.39            | 16.17 | 16.32 | 17.11 | 18.33 | 17.40          | 18.18 | 18.34 | 19.12 | 20.35 |
|                 | 4H   | 15.97            | 16.70 | 16.91 | 17.65 | 18.88 | 17.85          | 18.59 | 18.80 | 19.54 | 20.77 |
|                 | 6H   | 16.34            | 17.01 | 17.30 | 17.97 | 19.21 | 18.13          | 18.81 | 19.09 | 19.76 | 21.01 |
|                 | 8H   | 16.43            | 17.08 | 17.40 | 18.05 | 19.29 | 18.19          | 18.84 | 19.16 | 19.81 | 21.05 |
|                 | 12H  | 16.48            | 17.09 | 17.45 | 18.06 | 19.32 | 18.21          | 18.82 | 19.18 | 19.79 | 21.06 |
| 4H              | 2H   | 14.32            | 15.05 | 15.27 | 16.00 | 17.23 | 16.14          | 16.88 | 17.10 | 17.82 | 19.06 |
|                 | 3H   | 16.15            | 16.76 | 17.11 | 17.74 | 18.98 | 17.76          | 18.37 | 18.72 | 19.35 | 20.60 |
|                 | 4H   | 16.85            | 17.40 | 17.82 | 18.37 | 19.65 | 18.35          | 18.90 | 19.32 | 19.88 | 21.15 |
|                 | 6H   | 17.32            | 17.80 | 18.30 | 18.80 | 20.07 | 18.75          | 19.23 | 19.73 | 20.23 | 21.50 |
|                 | 8H   | 17.46            | 17.91 | 18.44 | 18.89 | 20.18 | 18.86          | 19.31 | 19.85 | 20.30 | 21.58 |
|                 | 12H  | 17.52            | 17.93 | 18.53 | 18.93 | 20.22 | 18.91          | 19.31 | 19.91 | 20.32 | 21.61 |
| 8H              | 4H   | 17.11            | 17.56 | 18.10 | 18.55 | 19.83 | 18.45          | 18.90 | 19.44 | 19.89 | 21.17 |
|                 | 6H   | 17.70            | 18.07 | 18.71 | 19.10 | 20.38 | 18.96          | 19.33 | 19.96 | 20.36 | 21.64 |
|                 | 8H   | 17.91            | 18.23 | 18.93 | 19.25 | 20.55 | 19.14          | 19.46 | 20.15 | 20.48 | 21.78 |
|                 | 12H  | 18.03            | 18.32 | 19.05 | 19.33 | 20.68 | 19.24          | 19.52 | 20.26 | 20.54 | 21.88 |
| 12H             | 4H   | 17.11            | 17.52 | 18.12 | 18.52 | 19.81 | 18.43          | 18.83 | 19.43 | 19.84 | 21.13 |
|                 | 6H   | 17.75            | 18.08 | 18.77 | 19.10 | 20.40 | 18.97          | 19.30 | 19.99 | 20.31 | 21.61 |
|                 | 8H   | 17.99            | 18.27 | 19.01 | 19.28 | 20.63 | 19.17          | 19.46 | 20.19 | 20.47 | 21.81 |