

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: P831450

Luminaire Tested: S123DIP-S560D1025U830-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831450
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-5)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S560D1025U830-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 560 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

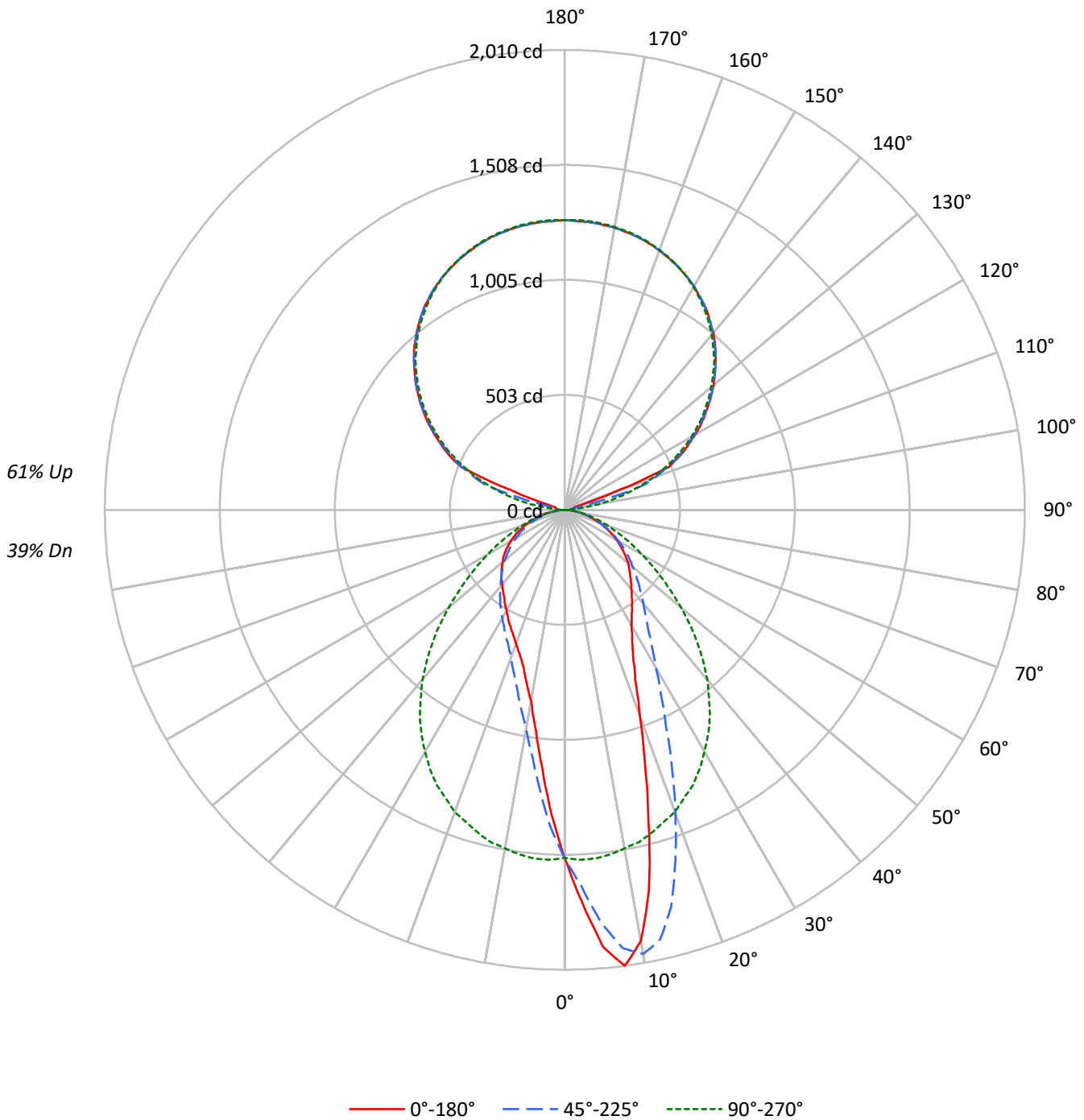
Lumens per Lamp: N/A
Luminaire Lumens: 6308.5 lumens
Efficiency: N/A
Efficacy: 138.6 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 45.5
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: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

Luminous Intensity Polar Plot





TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-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 | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 | 39 | | | | |
| 1 | 96 | 92 | 88 | 85 | 87 | 83 | 80 | 77 | 68 | 66 | 64 | 54 | 53 | 51 | 41 | 40 | 39 | 33 | | | | |
| 2 | 87 | 80 | 75 | 70 | 79 | 73 | 68 | 64 | 60 | 57 | 54 | 48 | 46 | 44 | 37 | 35 | 34 | 29 | | | | |
| 3 | 80 | 71 | 64 | 59 | 73 | 65 | 59 | 54 | 53 | 49 | 46 | 43 | 40 | 37 | 33 | 31 | 29 | 25 | | | | |
| 4 | 73 | 63 | 56 | 50 | 67 | 58 | 51 | 46 | 48 | 43 | 39 | 38 | 35 | 32 | 30 | 28 | 26 | 22 | | | | |
| 5 | 68 | 57 | 49 | 43 | 61 | 52 | 45 | 40 | 43 | 38 | 34 | 35 | 31 | 28 | 27 | 25 | 23 | 19 | | | | |
| 6 | 62 | 51 | 43 | 38 | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 25 | 22 | 20 | 17 | | | | |
| 7 | 58 | 46 | 39 | 33 | 53 | 42 | 36 | 31 | 36 | 30 | 27 | 29 | 25 | 23 | 23 | 20 | 18 | 16 | | | | |
| 8 | 54 | 42 | 35 | 30 | 49 | 39 | 32 | 28 | 33 | 28 | 24 | 27 | 23 | 20 | 21 | 19 | 17 | 14 | | | | |
| 9 | 50 | 38 | 31 | 26 | 46 | 36 | 29 | 25 | 30 | 25 | 22 | 25 | 21 | 18 | 20 | 17 | 15 | 13 | | | | |
| 10 | 47 | 35 | 28 | 24 | 43 | 33 | 27 | 22 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 16 | 14 | 12 | | | | |

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



TEST NUMBER: P831450

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 143.8 | 2.3 |
| 10°-20° | 357.8 | 5.7 |
| 20°-30° | 423.7 | 6.7 |
| 30°-40° | 426.0 | 6.8 |
| 40°-50° | 390.8 | 6.2 |
| 50°-60° | 322.6 | 5.1 |
| 60°-70° | 228.2 | 3.6 |
| 70°-80° | 121.8 | 1.9 |
| 80°-90° | 33.4 | 0.5 |
| 90°-100° | 44.6 | 0.7 |
| 100°-110° | 215.8 | 3.4 |
| 110°-120° | 529.0 | 8.4 |
| 120°-130° | 671.6 | 10.6 |
| 130°-140° | 717.5 | 11.4 |
| 140°-150° | 670.9 | 10.6 |
| 150°-160° | 541.2 | 8.6 |
| 160°-170° | 349.2 | 5.5 |
| 170°-180° | 120.4 | 1.9 |
| 0°-30° | 925.3 | 14.7 |
| 0°-40° | 1351.3 | 21.4 |
| 0°-60° | 2064.7 | 32.7 |
| 0°-90° | 2448.2 | 38.8 |
| 90°-120° | 789.5 | 12.5 |
| 90°-150° | 2849.5 | 45.2 |
| 90°-180° | 3860.0 | 61.2 |
| 0°-180° | 6308.5 | 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° | 28 | 23 | 1 | 23 | 28 | 14 |
| 95° | 36 | 29 | 57 | 29 | 36 | 30 |
| 105° | 41 | 206 | 280 | 206 | 41 | 86 |
| 115° | 553 | 540 | 526 | 540 | 553 | 520 |
| 125° | 756 | 753 | 741 | 753 | 756 | 676 |
| 135° | 932 | 932 | 923 | 932 | 932 | 719 |
| 145° | 1075 | 1073 | 1065 | 1073 | 1075 | 671 |
| 155° | 1171 | 1172 | 1173 | 1172 | 1171 | 540 |
| 165° | 1234 | 1233 | 1237 | 1233 | 1234 | 349 |
| 175° | 1262 | 1262 | 1266 | 1262 | 1262 | 120 |
| 180° | 1266 | 1266 | 1266 | 1266 | 1266 | |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

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° | 28.2 | 27.8 | 27.4 | 27.0 | 26.6 | 25.9 | 25.1 | 24.3 | 23.4 | 22.6 | 19.9 |
| 92.5° | 32.0 | 31.8 | 31.6 | 31.4 | 31.2 | 30.3 | 28.9 | 27.4 | 25.9 | 24.5 | 22.6 |
| 95° | 35.8 | 35.8 | 35.8 | 35.8 | 35.8 | 35.0 | 33.6 | 32.1 | 30.6 | 29.2 | 26.9 |
| 97.5° | 38.6 | 38.4 | 38.2 | 37.9 | 37.7 | 36.8 | 35.1 | 33.5 | 31.8 | 30.1 | 40.8 |
| 100° | 39.5 | 39.3 | 39.1 | 38.9 | 38.7 | 37.7 | 36.1 | 34.4 | 32.7 | 31.0 | 63.7 |
| 102.5° | 40.5 | 40.0 | 39.6 | 39.2 | 38.8 | 42.0 | 48.9 | 55.8 | 62.7 | 69.6 | 106.0 |
| 105° | 41.4 | 41.0 | 40.6 | 40.1 | 39.7 | 58.0 | 95.0 | 132.0 | 169.0 | 206.0 | 224.9 |
| 107.5° | 97.8 | 125.2 | 152.6 | 180.0 | 207.4 | 237.2 | 269.4 | 301.6 | 333.8 | 366.0 | 362.8 |
| 110° | 258.7 | 288.6 | 318.5 | 348.4 | 378.3 | 396.7 | 403.6 | 410.5 | 417.4 | 424.3 | 422.0 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 490.2 | 490.6 | 491.0 | 491.4 | 491.8 | 491.1 | 489.2 | 487.3 | 485.5 | 483.6 | 481.3 |
| 115° | 553.2 | 552.4 | 551.5 | 550.7 | 549.8 | 548.4 | 546.3 | 544.2 | 542.1 | 540.0 | 538.1 |
| 117.5° | 604.0 | 603.8 | 603.6 | 603.4 | 603.2 | 602.2 | 600.5 | 598.9 | 597.2 | 595.5 | 594.5 |
| 120° | 656.7 | 656.7 | 656.7 | 656.7 | 656.7 | 655.8 | 654.2 | 652.5 | 650.8 | 649.1 | 648.5 |
| 122.5° | 708.4 | 708.2 | 708.0 | 707.8 | 707.6 | 707.0 | 705.9 | 704.9 | 703.8 | 702.8 | 701.9 |
| 125° | 756.4 | 756.0 | 755.6 | 755.1 | 754.7 | 754.3 | 753.9 | 753.5 | 753.1 | 752.6 | 751.8 |
| 127.5° | 803.4 | 803.9 | 804.3 | 804.7 | 805.1 | 805.0 | 804.4 | 803.8 | 803.1 | 802.5 | 801.5 |
| 130° | 848.6 | 849.0 | 849.4 | 849.9 | 850.3 | 850.1 | 849.2 | 848.4 | 847.6 | 846.7 | 845.9 |
| 132.5° | 890.0 | 890.6 | 891.2 | 891.9 | 892.5 | 892.4 | 891.6 | 890.7 | 889.9 | 889.1 | 888.4 |
| 135° | 932.3 | 933.0 | 933.6 | 934.2 | 934.8 | 934.8 | 934.2 | 933.6 | 933.0 | 932.3 | 931.5 |
| 137.5° | 972.8 | 973.2 | 973.6 | 974.0 | 974.5 | 974.1 | 973.1 | 972.1 | 971.0 | 970.0 | 969.5 |
| 140° | 1008.5 | 1009.0 | 1009.4 | 1009.8 | 1010.2 | 1010.0 | 1009.2 | 1008.3 | 1007.5 | 1006.7 | 1006.0 |
| 142.5° | 1041.5 | 1042.1 | 1042.7 | 1043.3 | 1044.0 | 1044.0 | 1043.3 | 1042.7 | 1042.1 | 1041.5 | 1040.8 |
| 145° | 1075.3 | 1075.3 | 1075.3 | 1075.3 | 1075.3 | 1075.1 | 1074.7 | 1074.3 | 1073.9 | 1073.4 | 1073.0 |
| 147.5° | 1099.8 | 1100.8 | 1101.9 | 1102.9 | 1104.0 | 1104.3 | 1103.9 | 1103.4 | 1103.0 | 1102.6 | 1102.2 |
| 150° | 1128.0 | 1128.6 | 1129.3 | 1129.9 | 1130.5 | 1130.6 | 1130.2 | 1129.8 | 1129.4 | 1129.0 | 1128.5 |
| 152.5° | 1150.6 | 1151.6 | 1152.7 | 1153.7 | 1154.8 | 1154.9 | 1154.0 | 1153.2 | 1152.4 | 1151.5 | 1151.3 |
| 155° | 1171.3 | 1172.5 | 1173.8 | 1175.1 | 1176.3 | 1176.4 | 1175.4 | 1174.3 | 1173.3 | 1172.2 | 1172.0 |
| 157.5° | 1189.2 | 1190.8 | 1192.5 | 1194.2 | 1195.9 | 1196.1 | 1194.8 | 1193.6 | 1192.3 | 1191.0 | 1191.3 |
| 160° | 1206.1 | 1207.6 | 1209.0 | 1210.5 | 1212.0 | 1212.1 | 1210.8 | 1209.5 | 1208.3 | 1207.0 | 1207.2 |
| 162.5° | 1222.1 | 1223.3 | 1224.6 | 1225.9 | 1227.1 | 1227.0 | 1225.5 | 1224.1 | 1222.6 | 1221.2 | 1221.4 |
| 165° | 1234.3 | 1235.8 | 1237.3 | 1238.7 | 1240.2 | 1240.1 | 1238.4 | 1236.7 | 1235.1 | 1233.4 | 1233.6 |
| 167.5° | 1243.7 | 1245.4 | 1247.1 | 1248.7 | 1250.4 | 1250.4 | 1248.7 | 1247.1 | 1245.4 | 1243.7 | 1243.7 |
| 170° | 1252.2 | 1253.9 | 1255.5 | 1257.2 | 1258.9 | 1258.9 | 1257.2 | 1255.5 | 1253.9 | 1252.2 | 1252.2 |
| 172.5° | 1256.9 | 1258.8 | 1260.7 | 1262.5 | 1264.4 | 1264.5 | 1262.9 | 1261.2 | 1259.5 | 1257.8 | 1257.6 |
| 175° | 1261.6 | 1263.3 | 1265.0 | 1266.6 | 1268.3 | 1268.4 | 1266.9 | 1265.5 | 1264.0 | 1262.5 | 1262.3 |
| 177.5° | 1262.5 | 1264.6 | 1266.7 | 1268.8 | 1270.9 | 1271.1 | 1269.4 | 1267.8 | 1266.1 | 1264.4 | 1264.2 |
| 180° | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

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° | 17.1 | 14.4 | 11.7 | 9.3 | 7.2 | 5.1 | 3.0 | 0.9 | 3.0 | 5.1 | 7.2 |
| 92.5° | 20.7 | 18.8 | 16.9 | 16.6 | 17.9 | 19.1 | 20.4 | 21.6 | 20.4 | 19.1 | 17.9 |
| 95° | 24.6 | 22.3 | 20.0 | 23.1 | 31.7 | 40.2 | 48.8 | 57.4 | 48.8 | 40.2 | 31.7 |
| 97.5° | 51.4 | 62.1 | 72.8 | 81.0 | 86.9 | 92.7 | 98.6 | 104.4 | 98.6 | 92.7 | 86.9 |
| 100° | 96.3 | 128.9 | 161.5 | 175.7 | 171.5 | 167.4 | 163.2 | 159.0 | 163.2 | 167.4 | 171.5 |
| 102.5° | 142.4 | 178.8 | 215.1 | 232.0 | 229.2 | 226.5 | 223.8 | 221.1 | 223.8 | 226.5 | 229.2 |
| 105° | 243.7 | 262.5 | 281.3 | 289.6 | 287.3 | 285.0 | 282.7 | 280.4 | 282.7 | 285.0 | 287.3 |
| 107.5° | 359.7 | 356.6 | 353.4 | 350.9 | 349.0 | 347.2 | 345.3 | 343.4 | 345.3 | 347.2 | 349.0 |
| 110° | 419.7 | 417.4 | 415.1 | 413.1 | 411.4 | 409.8 | 408.1 | 406.4 | 408.1 | 409.8 | 411.4 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 479.0 | 476.7 | 474.4 | 472.5 | 471.0 | 469.6 | 468.1 | 466.6 | 468.1 | 469.6 | 471.0 |
| 115° | 536.3 | 534.4 | 532.5 | 530.9 | 529.7 | 528.4 | 527.2 | 525.9 | 527.2 | 528.4 | 529.7 |
| 117.5° | 593.4 | 592.4 | 591.3 | 590.1 | 588.6 | 587.2 | 585.7 | 584.2 | 585.7 | 587.2 | 588.6 |
| 120° | 647.9 | 647.3 | 646.6 | 645.4 | 643.5 | 641.6 | 639.7 | 637.9 | 639.7 | 641.6 | 643.5 |
| 122.5° | 701.1 | 700.3 | 699.4 | 698.3 | 696.8 | 695.4 | 693.9 | 692.4 | 693.9 | 695.4 | 696.8 |
| 125° | 751.0 | 750.1 | 749.3 | 748.0 | 746.4 | 744.7 | 743.0 | 741.3 | 743.0 | 744.7 | 746.4 |
| 127.5° | 800.4 | 799.4 | 798.3 | 797.0 | 795.3 | 793.6 | 791.9 | 790.3 | 791.9 | 793.6 | 795.3 |
| 130° | 845.0 | 844.2 | 843.4 | 842.1 | 840.4 | 838.8 | 837.1 | 835.4 | 837.1 | 838.8 | 840.4 |
| 132.5° | 887.8 | 887.2 | 886.5 | 885.4 | 883.7 | 882.0 | 880.4 | 878.7 | 880.4 | 882.0 | 883.7 |
| 135° | 930.7 | 929.8 | 929.0 | 927.9 | 926.7 | 925.4 | 924.2 | 922.9 | 924.2 | 925.4 | 926.7 |
| 137.5° | 969.1 | 968.7 | 968.3 | 967.2 | 965.6 | 963.9 | 962.2 | 960.6 | 962.2 | 963.9 | 965.6 |
| 140° | 1005.4 | 1004.8 | 1004.1 | 1003.2 | 1001.9 | 1000.7 | 999.4 | 998.2 | 999.4 | 1000.7 | 1001.9 |
| 142.5° | 1040.2 | 1039.6 | 1039.0 | 1038.0 | 1036.8 | 1035.5 | 1034.2 | 1033.0 | 1034.2 | 1035.5 | 1036.8 |
| 145° | 1072.6 | 1072.2 | 1071.8 | 1070.8 | 1069.4 | 1067.9 | 1066.4 | 1065.0 | 1066.4 | 1067.9 | 1069.4 |
| 147.5° | 1101.8 | 1101.4 | 1100.9 | 1100.2 | 1099.2 | 1098.1 | 1097.1 | 1096.0 | 1097.1 | 1098.1 | 1099.2 |
| 150° | 1128.1 | 1127.7 | 1127.3 | 1126.8 | 1126.1 | 1125.5 | 1124.9 | 1124.3 | 1124.9 | 1125.5 | 1126.1 |
| 152.5° | 1151.1 | 1150.9 | 1150.7 | 1150.5 | 1150.3 | 1150.1 | 1149.9 | 1149.7 | 1149.9 | 1150.1 | 1150.3 |
| 155° | 1171.8 | 1171.6 | 1171.4 | 1171.5 | 1171.9 | 1172.3 | 1172.8 | 1173.2 | 1172.8 | 1172.3 | 1171.9 |
| 157.5° | 1191.5 | 1191.7 | 1191.9 | 1192.0 | 1192.0 | 1192.0 | 1192.0 | 1192.0 | 1192.0 | 1192.0 | 1192.0 |
| 160° | 1207.5 | 1207.7 | 1207.9 | 1208.1 | 1208.3 | 1208.5 | 1208.7 | 1208.9 | 1208.7 | 1208.5 | 1208.3 |
| 162.5° | 1221.6 | 1221.8 | 1222.0 | 1222.4 | 1223.0 | 1223.7 | 1224.3 | 1224.9 | 1224.3 | 1223.7 | 1223.0 |
| 165° | 1233.8 | 1234.0 | 1234.2 | 1234.6 | 1235.3 | 1235.9 | 1236.5 | 1237.1 | 1236.5 | 1235.9 | 1235.3 |
| 167.5° | 1243.7 | 1243.7 | 1243.7 | 1244.1 | 1245.0 | 1245.8 | 1246.7 | 1247.5 | 1246.7 | 1245.8 | 1245.0 |
| 170° | 1252.2 | 1252.2 | 1252.2 | 1252.6 | 1253.5 | 1254.3 | 1255.1 | 1256.0 | 1255.1 | 1254.3 | 1253.5 |
| 172.5° | 1257.4 | 1257.2 | 1257.0 | 1257.4 | 1258.5 | 1259.5 | 1260.6 | 1261.6 | 1260.6 | 1259.5 | 1258.5 |
| 175° | 1262.1 | 1261.9 | 1261.7 | 1262.1 | 1263.2 | 1264.2 | 1265.3 | 1266.3 | 1265.3 | 1264.2 | 1263.2 |
| 177.5° | 1264.0 | 1263.8 | 1263.6 | 1264.0 | 1265.1 | 1266.1 | 1267.1 | 1268.2 | 1267.1 | 1266.1 | 1265.1 |
| 180° | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

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° | 9.3 | 11.7 | 14.4 | 17.1 | 19.9 | 22.6 | 23.4 | 24.3 | 25.1 | 25.9 | 26.6 |
| 92.5° | 16.6 | 16.9 | 18.8 | 20.7 | 22.6 | 24.5 | 25.9 | 27.4 | 28.9 | 30.3 | 31.2 |
| 95° | 23.1 | 20.0 | 22.3 | 24.6 | 26.9 | 29.2 | 30.6 | 32.1 | 33.6 | 35.0 | 35.8 |
| 97.5° | 81.0 | 72.8 | 62.1 | 51.4 | 40.8 | 30.1 | 31.8 | 33.5 | 35.1 | 36.8 | 37.7 |
| 100° | 175.7 | 161.5 | 128.9 | 96.3 | 63.7 | 31.0 | 32.7 | 34.4 | 36.1 | 37.7 | 38.7 |
| 102.5° | 232.0 | 215.1 | 178.8 | 142.4 | 106.0 | 69.6 | 62.7 | 55.8 | 48.9 | 42.0 | 38.8 |
| 105° | 289.6 | 281.3 | 262.5 | 243.7 | 224.9 | 206.0 | 169.0 | 132.0 | 95.0 | 58.0 | 39.7 |
| 107.5° | 350.9 | 353.4 | 356.6 | 359.7 | 362.8 | 366.0 | 333.8 | 301.6 | 269.4 | 237.2 | 207.4 |
| 110° | 413.1 | 415.1 | 417.4 | 419.7 | 422.0 | 424.3 | 417.4 | 410.5 | 403.6 | 396.7 | 378.3 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 472.5 | 474.4 | 476.7 | 479.0 | 481.3 | 483.6 | 485.5 | 487.3 | 489.2 | 491.1 | 491.8 |
| 115° | 530.9 | 532.5 | 534.4 | 536.3 | 538.1 | 540.0 | 542.1 | 544.2 | 546.3 | 548.4 | 549.8 |
| 117.5° | 590.1 | 591.3 | 592.4 | 593.4 | 594.5 | 595.5 | 597.2 | 598.9 | 600.5 | 602.2 | 603.2 |
| 120° | 645.4 | 646.6 | 647.3 | 647.9 | 648.5 | 649.1 | 650.8 | 652.5 | 654.2 | 655.8 | 656.7 |
| 122.5° | 698.3 | 699.4 | 700.3 | 701.1 | 701.9 | 702.8 | 703.8 | 704.9 | 705.9 | 707.0 | 707.6 |
| 125° | 748.0 | 749.3 | 750.1 | 751.0 | 751.8 | 752.6 | 753.1 | 753.5 | 753.9 | 754.3 | 754.7 |
| 127.5° | 797.0 | 798.3 | 799.4 | 800.4 | 801.5 | 802.5 | 803.1 | 803.8 | 804.4 | 805.0 | 805.1 |
| 130° | 842.1 | 843.4 | 844.2 | 845.0 | 845.9 | 846.7 | 847.6 | 848.4 | 849.2 | 850.1 | 850.3 |
| 132.5° | 885.4 | 886.5 | 887.2 | 887.8 | 888.4 | 889.1 | 889.9 | 890.7 | 891.6 | 892.4 | 892.5 |
| 135° | 927.9 | 929.0 | 929.8 | 930.7 | 931.5 | 932.3 | 933.0 | 933.6 | 934.2 | 934.8 | 934.8 |
| 137.5° | 967.2 | 968.3 | 968.7 | 969.1 | 969.5 | 970.0 | 971.0 | 972.1 | 973.1 | 974.1 | 974.5 |
| 140° | 1003.2 | 1004.1 | 1004.8 | 1005.4 | 1006.0 | 1006.7 | 1007.5 | 1008.3 | 1009.2 | 1010.0 | 1010.2 |
| 142.5° | 1038.0 | 1039.0 | 1039.6 | 1040.2 | 1040.8 | 1041.5 | 1042.1 | 1042.7 | 1043.3 | 1044.0 | 1044.0 |
| 145° | 1070.8 | 1071.8 | 1072.2 | 1072.6 | 1073.0 | 1073.4 | 1073.9 | 1074.3 | 1074.7 | 1075.1 | 1075.3 |
| 147.5° | 1100.2 | 1100.9 | 1101.4 | 1101.8 | 1102.2 | 1102.6 | 1103.0 | 1103.4 | 1103.9 | 1104.3 | 1104.0 |
| 150° | 1126.8 | 1127.3 | 1127.7 | 1128.1 | 1128.5 | 1129.0 | 1129.4 | 1129.8 | 1130.2 | 1130.6 | 1130.5 |
| 152.5° | 1150.5 | 1150.7 | 1150.9 | 1151.1 | 1151.3 | 1151.5 | 1152.4 | 1153.2 | 1154.0 | 1154.9 | 1154.8 |
| 155° | 1171.5 | 1171.4 | 1171.6 | 1171.8 | 1172.0 | 1172.2 | 1173.3 | 1174.3 | 1175.4 | 1176.4 | 1176.3 |
| 157.5° | 1192.0 | 1191.9 | 1191.7 | 1191.5 | 1191.3 | 1191.0 | 1192.3 | 1193.6 | 1194.8 | 1196.1 | 1195.9 |
| 160° | 1208.1 | 1207.9 | 1207.7 | 1207.5 | 1207.2 | 1207.0 | 1208.3 | 1209.5 | 1210.8 | 1212.1 | 1212.0 |
| 162.5° | 1222.4 | 1222.0 | 1221.8 | 1221.6 | 1221.4 | 1221.2 | 1222.6 | 1224.1 | 1225.5 | 1227.0 | 1227.1 |
| 165° | 1234.6 | 1234.2 | 1234.0 | 1233.8 | 1233.6 | 1233.4 | 1235.1 | 1236.7 | 1238.4 | 1240.1 | 1240.2 |
| 167.5° | 1244.1 | 1243.7 | 1243.7 | 1243.7 | 1243.7 | 1243.7 | 1245.4 | 1247.1 | 1248.7 | 1250.4 | 1250.4 |
| 170° | 1252.6 | 1252.2 | 1252.2 | 1252.2 | 1252.2 | 1252.2 | 1253.9 | 1255.5 | 1257.2 | 1258.9 | 1258.9 |
| 172.5° | 1257.4 | 1257.0 | 1257.2 | 1257.4 | 1257.6 | 1257.8 | 1259.5 | 1261.2 | 1262.9 | 1264.5 | 1264.4 |
| 175° | 1262.1 | 1261.7 | 1261.9 | 1262.1 | 1262.3 | 1262.5 | 1264.0 | 1265.5 | 1266.9 | 1268.4 | 1268.3 |
| 177.5° | 1264.0 | 1263.6 | 1263.8 | 1264.0 | 1264.2 | 1264.4 | 1266.1 | 1267.8 | 1269.4 | 1271.1 | 1270.9 |
| 180° | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 | 1266.3 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

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° | 27.0 | 27.4 | 27.8 | 28.2 |
| 92.5° | 31.4 | 31.6 | 31.8 | 32.0 |
| 95° | 35.8 | 35.8 | 35.8 | 35.8 |
| 97.5° | 37.9 | 38.2 | 38.4 | 38.6 |
| 100° | 38.9 | 39.1 | 39.3 | 39.5 |
| 102.5° | 39.2 | 39.6 | 40.0 | 40.5 |
| 105° | 40.1 | 40.6 | 41.0 | 41.4 |
| 107.5° | 180.0 | 152.6 | 125.2 | 97.8 |
| 110° | 348.4 | 318.5 | 288.6 | 258.7 |



TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|--------|--------|--------|--------|--------|
| 112.5° | 491.4 | 491.0 | 490.6 | 490.2 |
| 115° | 550.7 | 551.5 | 552.4 | 553.2 |
| 117.5° | 603.4 | 603.6 | 603.8 | 604.0 |
| 120° | 656.7 | 656.7 | 656.7 | 656.7 |
| 122.5° | 707.8 | 708.0 | 708.2 | 708.4 |
| 125° | 755.1 | 755.6 | 756.0 | 756.4 |
| 127.5° | 804.7 | 804.3 | 803.9 | 803.4 |
| 130° | 849.9 | 849.4 | 849.0 | 848.6 |
| 132.5° | 891.9 | 891.2 | 890.6 | 890.0 |
| 135° | 934.2 | 933.6 | 933.0 | 932.3 |
| 137.5° | 974.0 | 973.6 | 973.2 | 972.8 |
| 140° | 1009.8 | 1009.4 | 1009.0 | 1008.5 |
| 142.5° | 1043.3 | 1042.7 | 1042.1 | 1041.5 |
| 145° | 1075.3 | 1075.3 | 1075.3 | 1075.3 |
| 147.5° | 1102.9 | 1101.9 | 1100.8 | 1099.8 |
| 150° | 1129.9 | 1129.3 | 1128.6 | 1128.0 |
| 152.5° | 1153.7 | 1152.7 | 1151.6 | 1150.6 |
| 155° | 1175.1 | 1173.8 | 1172.5 | 1171.3 |
| 157.5° | 1194.2 | 1192.5 | 1190.8 | 1189.2 |
| 160° | 1210.5 | 1209.0 | 1207.6 | 1206.1 |
| 162.5° | 1225.9 | 1224.6 | 1223.3 | 1222.1 |
| 165° | 1238.7 | 1237.3 | 1235.8 | 1234.3 |
| 167.5° | 1248.7 | 1247.1 | 1245.4 | 1243.7 |
| 170° | 1257.2 | 1255.5 | 1253.9 | 1252.2 |
| 172.5° | 1262.5 | 1260.7 | 1258.8 | 1256.9 |
| 175° | 1266.6 | 1265.0 | 1263.3 | 1261.6 |
| 177.5° | 1268.8 | 1266.7 | 1264.6 | 1262.5 |
| 180° | 1266.3 | 1266.3 | 1266.3 | 1266.3 |

TEST NUMBER: P831450

CATALOG NUMBER: S123DIP-S560D1025U830-4F0-1E-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 | 12.14 | 12.88 | 13.19 | 13.93 | 15.36 | 14.37 | 15.12 | 15.43 | 16.17 | 17.60 |
| | 3H | 13.78 | 14.44 | 14.84 | 15.50 | 16.95 | 15.79 | 16.45 | 16.85 | 17.52 | 18.96 |
| | 4H | 14.35 | 14.98 | 15.42 | 16.04 | 17.49 | 16.23 | 16.86 | 17.31 | 17.93 | 19.38 |
| | 6H | 14.71 | 15.29 | 15.80 | 16.36 | 17.82 | 16.50 | 17.08 | 17.59 | 18.15 | 19.61 |
| | 8H | 14.81 | 15.36 | 15.89 | 16.44 | 17.90 | 16.56 | 17.11 | 17.65 | 18.20 | 19.66 |
| | 12H | 14.85 | 15.37 | 15.94 | 16.45 | 17.93 | 16.58 | 17.10 | 17.67 | 18.18 | 19.66 |
| 4H | 2H | 12.70 | 13.33 | 13.78 | 14.39 | 15.84 | 14.52 | 15.15 | 15.61 | 16.22 | 17.67 |
| | 3H | 14.52 | 15.04 | 15.60 | 16.13 | 17.60 | 16.13 | 16.66 | 17.22 | 17.75 | 19.21 |
| | 4H | 15.21 | 15.69 | 16.30 | 16.77 | 18.26 | 16.71 | 17.19 | 17.80 | 18.27 | 19.76 |
| | 6H | 15.68 | 16.09 | 16.78 | 17.20 | 18.67 | 17.11 | 17.52 | 18.21 | 18.63 | 20.11 |
| | 8H | 15.81 | 16.20 | 16.91 | 17.29 | 18.79 | 17.22 | 17.60 | 18.32 | 18.70 | 20.19 |
| | 12H | 15.87 | 16.22 | 16.99 | 17.33 | 18.83 | 17.26 | 17.61 | 18.38 | 18.72 | 20.21 |
| 8H | 4H | 15.47 | 15.85 | 16.57 | 16.95 | 18.44 | 16.81 | 17.19 | 17.91 | 18.29 | 19.78 |
| | 6H | 16.05 | 16.37 | 17.17 | 17.51 | 19.00 | 17.31 | 17.62 | 18.43 | 18.76 | 20.25 |
| | 8H | 16.26 | 16.54 | 17.39 | 17.66 | 19.17 | 17.48 | 17.76 | 18.61 | 18.88 | 20.39 |
| | 12H | 16.38 | 16.62 | 17.51 | 17.74 | 19.29 | 17.58 | 17.83 | 18.71 | 18.94 | 20.49 |
| 12H | 4H | 15.46 | 15.81 | 16.58 | 16.92 | 18.42 | 16.78 | 17.13 | 17.90 | 18.24 | 19.73 |
| | 6H | 16.10 | 16.38 | 17.23 | 17.50 | 19.01 | 17.32 | 17.60 | 18.45 | 18.72 | 20.23 |
| | 8H | 16.33 | 16.57 | 17.46 | 17.69 | 19.24 | 17.51 | 17.76 | 18.65 | 18.87 | 20.42 |