

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: P831325

Luminaire Tested: S123DIP-S340D1025U850-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831325
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-9)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S340D1025U850-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 340 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

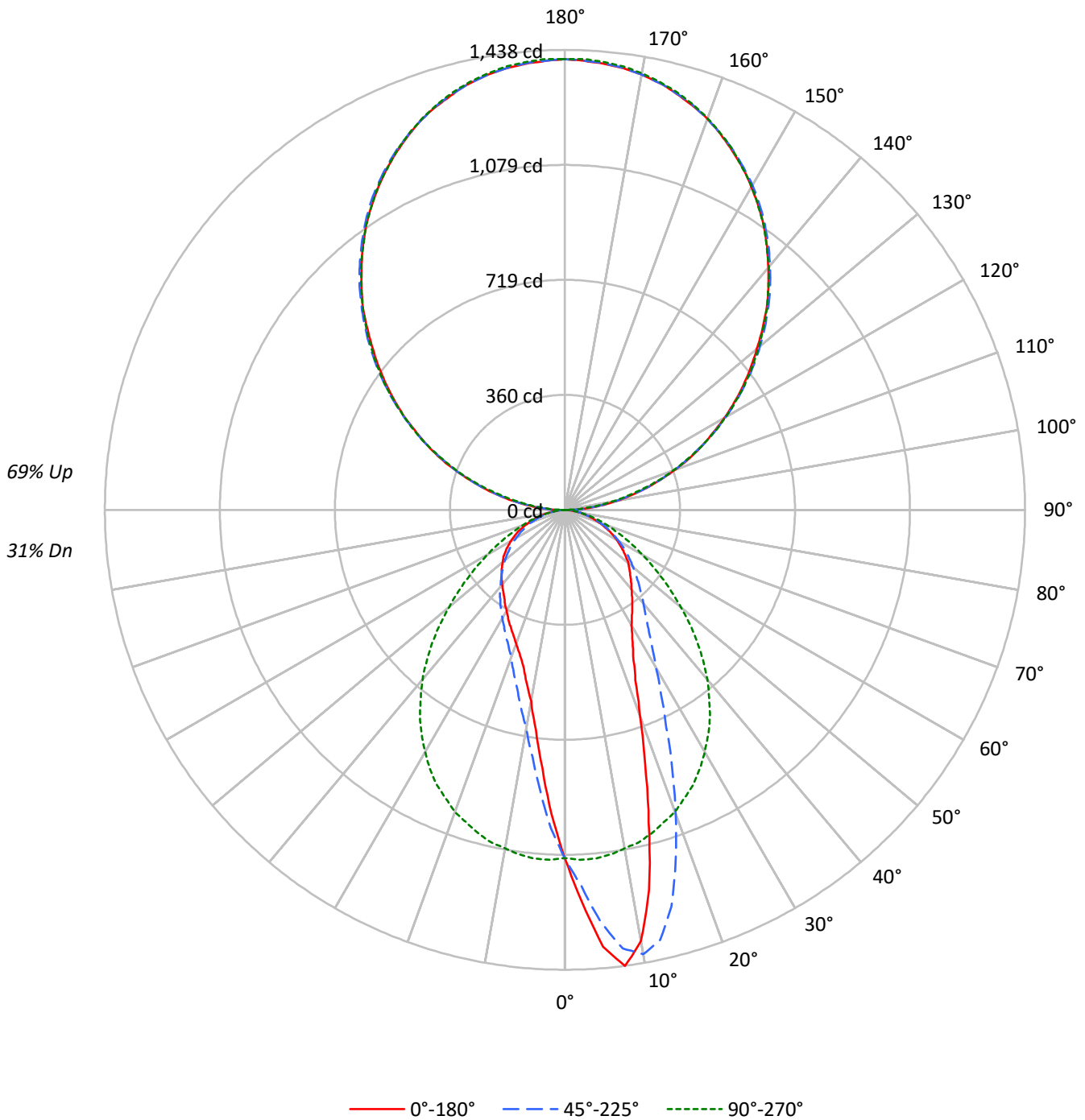
Lumens per Lamp: N/A
Luminaire Lumens: 5658.0 lumens
Efficiency: N/A
Efficacy: 147.7 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 38.3
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: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

Luminous Intensity Polar Plot





TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

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 | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 39 | 39 | 39 | 31 | 31 | 31 | 31 | |
| 1 | 94 | 90 | 86 | 83 | 84 | 81 | 78 | 75 | 64 | 62 | 60 | 49 | 47 | 46 | 35 | 34 | 33 | 27 | 27 | 27 | 27 | |
| 2 | 86 | 79 | 73 | 68 | 77 | 71 | 66 | 62 | 57 | 53 | 50 | 43 | 41 | 39 | 31 | 30 | 28 | 23 | 23 | 23 | 23 | |
| 3 | 78 | 69 | 63 | 57 | 70 | 63 | 57 | 52 | 50 | 46 | 43 | 39 | 36 | 34 | 28 | 26 | 25 | 20 | 20 | 20 | 20 | |
| 4 | 72 | 62 | 54 | 49 | 64 | 56 | 49 | 45 | 45 | 40 | 37 | 35 | 31 | 29 | 25 | 23 | 22 | 17 | 17 | 17 | 17 | |
| 5 | 66 | 55 | 47 | 42 | 59 | 50 | 43 | 38 | 40 | 35 | 32 | 31 | 28 | 25 | 23 | 21 | 19 | 15 | 15 | 15 | 15 | |
| 6 | 61 | 49 | 42 | 36 | 55 | 45 | 38 | 33 | 36 | 32 | 28 | 28 | 25 | 22 | 21 | 19 | 17 | 14 | 14 | 14 | 14 | |
| 7 | 56 | 45 | 37 | 32 | 51 | 41 | 34 | 29 | 33 | 28 | 25 | 26 | 22 | 20 | 19 | 17 | 15 | 13 | 13 | 13 | 13 | |
| 8 | 52 | 41 | 33 | 28 | 47 | 37 | 31 | 26 | 30 | 25 | 22 | 24 | 20 | 18 | 18 | 16 | 14 | 11 | 11 | 11 | 11 | |
| 9 | 49 | 37 | 30 | 25 | 44 | 34 | 28 | 23 | 28 | 23 | 20 | 22 | 19 | 16 | 16 | 14 | 13 | 10 | 10 | 10 | 10 | |
| 10 | 46 | 34 | 27 | 23 | 41 | 31 | 25 | 21 | 26 | 21 | 18 | 20 | 17 | 15 | 15 | 13 | 12 | 10 | 10 | 10 | 10 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° | 135° | 180° |
|-----|-------|-------|-------|-------|-------|
| 0° | 11720 | 11720 | 11720 | 11720 | 11720 |
| 5° | 14822 | 13989 | 11825 | 9529 | 8756 |
| 10° | 14966 | 15419 | 11746 | 7596 | 6638 |
| 15° | 11272 | 14315 | 11666 | 6433 | 5613 |
| 20° | 7853 | 11584 | 11518 | 5625 | 5098 |
| 25° | 5989 | 8909 | 11264 | 5176 | 4783 |
| 30° | 5180 | 7077 | 10858 | 4857 | 4528 |
| 35° | 4807 | 5975 | 10390 | 4628 | 4348 |
| 40° | 4551 | 5361 | 9733 | 4409 | 4288 |
| 45° | 4399 | 4961 | 8899 | 4238 | 4261 |
| 50° | 4324 | 4645 | 7911 | 4083 | 4238 |
| 55° | 4162 | 4414 | 6942 | 3935 | 4258 |
| 60° | 4013 | 4166 | 5983 | 3795 | 4187 |
| 65° | 3769 | 3933 | 5160 | 3647 | 4106 |
| 70° | 3484 | 3635 | 4390 | 3402 | 3865 |
| 75° | 3152 | 3256 | 3760 | 3161 | 3531 |
| 80° | 2597 | 2851 | 2975 | 2758 | 2975 |
| 85° | 2062 | 2309 | 2186 | 2334 | 2371 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 10161 cd/sqm



TEST NUMBER: P831325

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.9 | 1.8 |
| 10°-20° | 256.1 | 4.5 |
| 20°-30° | 303.2 | 5.4 |
| 30°-40° | 304.9 | 5.4 |
| 40°-50° | 279.7 | 4.9 |
| 50°-60° | 230.9 | 4.1 |
| 60°-70° | 163.3 | 2.9 |
| 70°-80° | 87.2 | 1.5 |
| 80°-90° | 25.1 | 0.4 |
| 90°-100° | 90.7 | 1.6 |
| 100°-110° | 274.6 | 4.9 |
| 110°-120° | 467.4 | 8.3 |
| 120°-130° | 614.9 | 10.9 |
| 130°-140° | 691.2 | 12.2 |
| 140°-150° | 679.5 | 12.0 |
| 150°-160° | 572.1 | 10.1 |
| 160°-170° | 380.9 | 6.7 |
| 170°-180° | 133.4 | 2.4 |
| 0°-30° | 662.3 | 11.7 |
| 0°-40° | 967.1 | 17.1 |
| 0°-60° | 1477.7 | 26.1 |
| 0°-90° | 1753.3 | 31.0 |
| 90°-120° | 832.7 | 14.7 |
| 90°-150° | 2818.3 | 49.8 |
| 90°-180° | 3905.0 | 69.0 |
| 0°-180° | 5658.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0° | 1089 | 1089 | 1089 | 1089 | 1089 | |
| 5° | 1372 | 1295 | 1094 | 882 | 810 | 131 |
| 15° | 1012 | 1285 | 1047 | 577 | 504 | 279 |
| 25° | 504 | 750 | 948 | 436 | 403 | 238 |
| 35° | 366 | 455 | 791 | 352 | 331 | 230 |
| 45° | 289 | 326 | 585 | 278 | 280 | 224 |
| 55° | 222 | 235 | 370 | 210 | 227 | 198 |
| 65° | 148 | 154 | 203 | 143 | 161 | 147 |
| 75° | 76 | 78 | 90 | 76 | 85 | 80 |
| 85° | 17 | 19 | 18 | 19 | 19 | 19 |
| 90° | 33 | 27 | 1 | 27 | 33 | 17 |
| 95° | 86 | 82 | 65 | 82 | 86 | 87 |
| 105° | 264 | 261 | 249 | 261 | 264 | 279 |
| 115° | 472 | 472 | 470 | 472 | 472 | 467 |
| 125° | 681 | 690 | 689 | 690 | 681 | 609 |
| 135° | 892 | 899 | 893 | 899 | 892 | 686 |
| 145° | 1084 | 1089 | 1084 | 1089 | 1084 | 677 |
| 155° | 1239 | 1242 | 1241 | 1242 | 1239 | 571 |
| 165° | 1347 | 1348 | 1352 | 1348 | 1347 | 380 |
| 175° | 1400 | 1402 | 1406 | 1402 | 1400 | 133 |
| 180° | 1409 | 1409 | 1409 | 1409 | 1409 | |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 |
| 2.5° | 1227.3 | 1226.0 | 1224.8 | 1218.4 | 1212.1 | 1209.1 | 1206.1 | 1197.0 | 1187.9 | 1177.8 | 1167.7 |
| 5° | 1371.8 | 1375.3 | 1378.9 | 1374.8 | 1370.8 | 1358.4 | 1346.0 | 1329.6 | 1313.2 | 1294.7 | 1276.3 |
| 7.5° | 1438.5 | 1440.5 | 1442.5 | 1440.0 | 1437.5 | 1434.2 | 1430.9 | 1416.3 | 1401.6 | 1382.7 | 1363.7 |
| 10° | 1369.3 | 1373.8 | 1378.4 | 1388.2 | 1398.1 | 1409.2 | 1420.3 | 1418.3 | 1416.3 | 1410.7 | 1405.1 |
| 12.5° | 1217.2 | 1222.7 | 1228.3 | 1248.0 | 1267.7 | 1293.0 | 1318.2 | 1340.0 | 1361.7 | 1376.8 | 1392.0 |
| 15° | 1011.5 | 1026.9 | 1042.4 | 1060.3 | 1078.2 | 1115.4 | 1152.5 | 1198.2 | 1244.0 | 1284.6 | 1325.3 |
| 17.5° | 833.2 | 839.0 | 844.8 | 864.0 | 883.2 | 929.9 | 976.7 | 1029.5 | 1082.3 | 1149.7 | 1217.2 |
| 20° | 685.6 | 690.9 | 696.3 | 721.5 | 746.8 | 783.4 | 820.0 | 879.4 | 938.8 | 1011.3 | 1083.8 |
| 22.5° | 576.0 | 584.3 | 592.7 | 606.8 | 621.0 | 656.1 | 691.2 | 744.0 | 796.8 | 876.9 | 957.0 |
| 25° | 504.3 | 510.3 | 516.4 | 525.0 | 533.6 | 561.6 | 589.6 | 633.1 | 676.5 | 750.1 | 823.6 |
| 27.5° | 455.2 | 457.8 | 460.3 | 468.9 | 477.5 | 495.7 | 513.9 | 551.2 | 588.6 | 651.0 | 713.4 |
| 30° | 416.8 | 418.6 | 420.4 | 428.0 | 435.5 | 447.9 | 460.3 | 487.3 | 514.4 | 569.4 | 624.5 |
| 32.5° | 390.1 | 391.3 | 392.6 | 398.4 | 404.2 | 413.1 | 421.9 | 441.6 | 461.3 | 506.8 | 552.3 |
| 35° | 365.8 | 366.6 | 367.3 | 371.6 | 375.9 | 382.5 | 389.1 | 404.0 | 418.9 | 454.7 | 490.6 |
| 37.5° | 344.6 | 345.6 | 346.6 | 349.1 | 351.7 | 357.5 | 363.3 | 375.2 | 387.0 | 414.6 | 442.1 |
| 40° | 323.9 | 325.6 | 327.4 | 329.2 | 330.9 | 335.7 | 340.5 | 349.6 | 358.7 | 381.5 | 404.2 |
| 42.5° | 306.2 | 308.0 | 309.7 | 310.5 | 311.2 | 314.0 | 316.8 | 325.1 | 333.5 | 350.4 | 367.3 |
| 45° | 289.0 | 289.8 | 290.5 | 291.3 | 292.0 | 294.3 | 296.6 | 303.9 | 311.2 | 325.9 | 340.5 |
| 47.5° | 273.3 | 273.3 | 273.3 | 273.9 | 274.4 | 276.4 | 278.4 | 283.7 | 289.0 | 300.4 | 311.7 |
| 50° | 258.2 | 258.2 | 258.2 | 257.4 | 256.7 | 257.9 | 259.2 | 263.2 | 267.3 | 277.4 | 287.5 |
| 52.5° | 240.0 | 240.0 | 240.0 | 240.3 | 240.5 | 240.5 | 240.5 | 244.0 | 247.6 | 256.7 | 265.8 |
| 55° | 221.8 | 222.8 | 223.8 | 223.1 | 222.3 | 222.8 | 223.3 | 225.6 | 227.9 | 235.2 | 242.5 |
| 57.5° | 203.6 | 204.1 | 204.6 | 204.4 | 204.1 | 204.4 | 204.6 | 206.7 | 208.7 | 214.2 | 219.8 |
| 60° | 186.4 | 186.4 | 186.4 | 185.9 | 185.4 | 185.9 | 186.4 | 187.5 | 188.5 | 193.5 | 198.6 |
| 62.5° | 167.2 | 167.5 | 167.7 | 168.0 | 168.3 | 167.7 | 167.2 | 168.5 | 169.8 | 173.6 | 177.3 |
| 65° | 148.0 | 148.3 | 148.5 | 149.3 | 150.1 | 149.6 | 149.1 | 150.3 | 151.6 | 154.4 | 157.1 |
| 67.5° | 130.9 | 130.4 | 129.9 | 130.1 | 130.4 | 131.1 | 131.9 | 132.1 | 132.4 | 135.4 | 138.4 |
| 70° | 110.7 | 111.2 | 111.7 | 111.4 | 111.2 | 111.4 | 111.7 | 112.4 | 113.2 | 115.5 | 117.7 |
| 72.5° | 92.5 | 92.7 | 93.0 | 93.0 | 93.0 | 93.5 | 94.0 | 94.7 | 95.5 | 96.8 | 98.0 |
| 75° | 75.8 | 75.8 | 75.8 | 76.3 | 76.8 | 77.1 | 77.3 | 77.3 | 77.3 | 78.3 | 79.3 |
| 77.5° | 57.6 | 58.9 | 60.1 | 59.9 | 59.6 | 60.1 | 60.6 | 61.4 | 62.1 | 62.7 | 63.2 |
| 80° | 41.9 | 41.9 | 41.9 | 42.2 | 42.4 | 43.2 | 44.0 | 44.5 | 45.0 | 46.0 | 47.0 |
| 82.5° | 26.8 | 27.0 | 27.3 | 28.0 | 28.8 | 29.3 | 29.8 | 30.6 | 31.3 | 31.3 | 31.3 |
| 85° | 16.7 | 16.2 | 15.7 | 16.2 | 16.7 | 17.2 | 17.7 | 17.9 | 18.2 | 18.7 | 19.2 |
| 87.5° | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.3 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 |
| 90° | 33.2 | 32.7 | 32.2 | 31.7 | 31.2 | 30.5 | 29.5 | 28.5 | 27.6 | 26.6 | 23.4 |
| 92.5° | 47.6 | 48.1 | 48.6 | 49.1 | 49.6 | 49.4 | 48.7 | 48.0 | 47.2 | 46.5 | 45.0 |
| 95° | 86.3 | 86.3 | 86.3 | 86.3 | 86.3 | 85.9 | 84.9 | 83.9 | 82.9 | 81.9 | 80.0 |
| 97.5° | 124.0 | 124.2 | 124.5 | 124.7 | 125.0 | 124.5 | 123.2 | 122.0 | 120.8 | 119.6 | 118.1 |
| 100° | 168.3 | 167.8 | 167.3 | 166.8 | 166.3 | 165.7 | 164.9 | 164.2 | 163.5 | 162.7 | 161.5 |
| 102.5° | 213.7 | 213.9 | 214.1 | 214.4 | 214.6 | 214.4 | 213.7 | 212.9 | 212.2 | 211.4 | 209.7 |
| 105° | 263.5 | 263.0 | 262.5 | 262.0 | 261.5 | 261.3 | 261.3 | 261.3 | 261.3 | 261.3 | 259.0 |
| 107.5° | 314.4 | 314.6 | 314.9 | 315.1 | 315.4 | 315.1 | 314.4 | 313.7 | 312.9 | 312.2 | 311.2 |
| 110° | 366.4 | 366.9 | 367.4 | 367.9 | 368.4 | 368.1 | 367.2 | 366.2 | 365.2 | 364.2 | 363.7 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 421.8 | 421.8 | 421.8 | 421.8 | 421.8 | 421.2 | 419.9 | 418.7 | 417.5 | 416.2 | 416.2 |
| 115° | 471.6 | 471.8 | 472.1 | 472.3 | 472.6 | 472.6 | 472.3 | 472.1 | 471.8 | 471.6 | 472.1 |
| 117.5° | 522.5 | 523.2 | 524.0 | 524.7 | 525.5 | 525.8 | 525.8 | 525.8 | 525.8 | 525.8 | 526.3 |
| 120° | 576.8 | 577.2 | 577.7 | 578.2 | 578.7 | 579.1 | 579.3 | 579.6 | 579.8 | 580.1 | 581.3 |
| 122.5° | 628.8 | 629.5 | 630.3 | 631.0 | 631.7 | 632.5 | 633.2 | 633.9 | 634.7 | 635.4 | 635.9 |
| 125° | 680.8 | 681.8 | 682.8 | 683.8 | 684.7 | 685.7 | 686.7 | 687.7 | 688.7 | 689.7 | 690.2 |
| 127.5° | 732.8 | 733.8 | 734.8 | 735.8 | 736.8 | 738.0 | 739.5 | 741.0 | 742.4 | 743.9 | 744.4 |
| 130° | 783.8 | 785.5 | 787.2 | 788.9 | 790.7 | 792.0 | 793.0 | 794.0 | 795.0 | 795.9 | 796.7 |
| 132.5° | 836.9 | 838.1 | 839.4 | 840.6 | 841.8 | 843.1 | 844.3 | 845.5 | 846.7 | 848.0 | 848.5 |
| 135° | 892.3 | 892.7 | 893.2 | 893.7 | 894.2 | 895.0 | 895.9 | 896.9 | 897.9 | 898.9 | 899.1 |
| 137.5° | 941.0 | 941.7 | 942.4 | 943.2 | 943.9 | 944.9 | 946.1 | 947.4 | 948.6 | 949.8 | 949.1 |
| 140° | 988.6 | 990.3 | 992.0 | 993.7 | 995.5 | 996.4 | 996.7 | 996.9 | 997.2 | 997.4 | 997.2 |
| 142.5° | 1037.3 | 1038.5 | 1039.7 | 1041.0 | 1042.2 | 1042.9 | 1043.2 | 1043.4 | 1043.7 | 1043.9 | 1043.4 |
| 145° | 1083.8 | 1084.7 | 1085.7 | 1086.7 | 1087.7 | 1088.3 | 1088.6 | 1088.8 | 1089.1 | 1089.3 | 1088.6 |
| 147.5° | 1125.8 | 1127.3 | 1128.8 | 1130.3 | 1131.7 | 1132.5 | 1132.5 | 1132.5 | 1132.5 | 1132.5 | 1131.7 |
| 150° | 1165.7 | 1167.2 | 1168.6 | 1170.1 | 1171.6 | 1172.3 | 1172.3 | 1172.3 | 1172.3 | 1172.3 | 1171.8 |
| 152.5° | 1204.4 | 1205.7 | 1206.9 | 1208.1 | 1209.4 | 1209.7 | 1209.2 | 1208.7 | 1208.2 | 1207.8 | 1207.5 |
| 155° | 1238.7 | 1240.5 | 1242.2 | 1243.9 | 1245.6 | 1246.0 | 1245.0 | 1244.0 | 1243.1 | 1242.1 | 1241.8 |
| 157.5° | 1270.9 | 1272.3 | 1273.8 | 1275.3 | 1276.8 | 1277.0 | 1276.0 | 1275.0 | 1274.0 | 1273.1 | 1272.8 |
| 160° | 1301.8 | 1302.8 | 1303.8 | 1304.8 | 1305.8 | 1305.7 | 1304.4 | 1303.2 | 1302.0 | 1300.7 | 1300.7 |
| 162.5° | 1325.1 | 1326.8 | 1328.5 | 1330.3 | 1332.0 | 1332.2 | 1331.0 | 1329.8 | 1328.5 | 1327.3 | 1327.1 |
| 165° | 1347.2 | 1349.0 | 1350.7 | 1352.4 | 1354.1 | 1354.2 | 1352.8 | 1351.3 | 1349.8 | 1348.3 | 1348.3 |
| 167.5° | 1367.2 | 1368.6 | 1370.1 | 1371.6 | 1373.1 | 1373.1 | 1371.6 | 1370.1 | 1368.6 | 1367.2 | 1366.9 |
| 170° | 1381.6 | 1383.3 | 1385.0 | 1386.7 | 1388.4 | 1388.4 | 1386.7 | 1385.0 | 1383.3 | 1381.6 | 1381.6 |
| 172.5° | 1392.6 | 1394.3 | 1396.1 | 1397.8 | 1399.5 | 1399.6 | 1398.2 | 1396.7 | 1395.2 | 1393.7 | 1393.7 |
| 175° | 1400.4 | 1402.1 | 1403.8 | 1405.5 | 1407.3 | 1407.4 | 1405.9 | 1404.4 | 1403.0 | 1401.5 | 1401.5 |
| 177.5° | 1404.8 | 1406.5 | 1408.2 | 1410.0 | 1411.7 | 1411.8 | 1410.3 | 1408.9 | 1407.4 | 1405.9 | 1405.9 |
| 180° | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 |
| 2.5° | 1164.6 | 1161.6 | 1150.5 | 1139.4 | 1126.7 | 1114.1 | 1104.8 | 1095.4 | 1081.5 | 1067.6 | 1056.3 |
| 5° | 1262.1 | 1248.0 | 1224.5 | 1201.0 | 1169.2 | 1137.3 | 1115.9 | 1094.4 | 1065.6 | 1036.8 | 1013.8 |
| 7.5° | 1339.5 | 1315.2 | 1282.4 | 1249.5 | 1207.8 | 1166.1 | 1126.7 | 1087.3 | 1043.4 | 999.4 | 963.5 |
| 10° | 1388.7 | 1372.3 | 1334.4 | 1296.5 | 1240.7 | 1184.8 | 1129.8 | 1074.7 | 1018.1 | 961.5 | 914.0 |
| 12.5° | 1393.5 | 1395.0 | 1360.2 | 1325.3 | 1262.1 | 1199.0 | 1132.0 | 1065.1 | 993.9 | 922.6 | 867.3 |
| 15° | 1351.3 | 1377.3 | 1358.1 | 1338.9 | 1275.3 | 1211.6 | 1129.3 | 1046.9 | 964.8 | 882.7 | 818.8 |
| 17.5° | 1273.0 | 1328.8 | 1331.6 | 1334.4 | 1270.7 | 1207.1 | 1115.9 | 1024.7 | 931.7 | 838.7 | 771.5 |
| 20° | 1166.1 | 1248.5 | 1276.8 | 1305.1 | 1253.3 | 1201.5 | 1103.5 | 1005.5 | 901.4 | 797.3 | 726.8 |
| 22.5° | 1057.0 | 1157.1 | 1208.8 | 1260.6 | 1222.2 | 1183.8 | 1079.5 | 975.2 | 865.3 | 755.4 | 683.9 |
| 25° | 932.7 | 1041.9 | 1121.4 | 1201.0 | 1177.5 | 1154.0 | 1051.2 | 948.4 | 831.4 | 714.4 | 641.4 |
| 27.5° | 824.3 | 935.2 | 1031.2 | 1127.2 | 1122.2 | 1117.1 | 1015.1 | 913.0 | 793.3 | 673.5 | 603.0 |
| 30° | 727.8 | 831.2 | 938.5 | 1045.9 | 1058.3 | 1070.7 | 972.1 | 873.6 | 753.6 | 633.6 | 565.6 |
| 32.5° | 642.4 | 732.6 | 847.8 | 963.0 | 987.3 | 1011.5 | 922.6 | 833.7 | 714.9 | 596.2 | 530.8 |
| 35° | 572.5 | 654.3 | 769.5 | 884.7 | 915.0 | 945.3 | 868.0 | 790.7 | 675.0 | 559.3 | 496.9 |
| 37.5° | 510.6 | 579.0 | 691.5 | 803.9 | 841.0 | 878.1 | 808.9 | 739.7 | 631.3 | 522.9 | 465.6 |
| 40° | 459.3 | 514.4 | 617.7 | 721.0 | 764.0 | 806.9 | 749.8 | 692.7 | 589.9 | 487.1 | 434.3 |
| 42.5° | 416.3 | 465.3 | 559.1 | 652.8 | 694.0 | 735.2 | 686.9 | 638.7 | 547.2 | 455.7 | 407.5 |
| 45° | 379.7 | 418.9 | 504.0 | 589.1 | 628.3 | 667.5 | 626.0 | 584.6 | 504.0 | 423.4 | 378.4 |
| 47.5° | 345.3 | 378.9 | 451.7 | 524.5 | 559.3 | 594.2 | 561.9 | 529.5 | 461.3 | 393.1 | 352.4 |
| 50° | 314.5 | 341.6 | 405.2 | 468.9 | 499.2 | 529.5 | 501.0 | 472.4 | 416.3 | 360.3 | 324.9 |
| 52.5° | 287.7 | 309.7 | 363.0 | 416.3 | 442.4 | 468.4 | 443.9 | 419.4 | 374.9 | 330.4 | 299.6 |
| 55° | 261.2 | 279.9 | 326.1 | 372.4 | 390.1 | 407.7 | 388.8 | 369.9 | 334.0 | 298.1 | 272.1 |
| 57.5° | 236.5 | 253.1 | 291.0 | 328.9 | 342.6 | 356.2 | 339.0 | 321.9 | 294.8 | 267.8 | 246.1 |
| 60° | 212.2 | 225.9 | 257.4 | 289.0 | 297.3 | 305.7 | 291.8 | 277.9 | 258.9 | 240.0 | 220.5 |
| 62.5° | 189.7 | 202.1 | 225.6 | 249.1 | 254.7 | 260.2 | 249.6 | 239.0 | 224.6 | 210.2 | 195.0 |
| 65° | 166.5 | 175.8 | 195.0 | 214.2 | 217.8 | 221.3 | 212.0 | 202.6 | 191.7 | 180.9 | 169.8 |
| 67.5° | 145.0 | 151.6 | 167.2 | 182.9 | 183.2 | 183.4 | 175.8 | 168.3 | 162.2 | 156.1 | 147.3 |
| 70° | 124.0 | 130.4 | 140.7 | 151.1 | 151.3 | 151.6 | 145.5 | 139.5 | 134.9 | 130.4 | 123.8 |
| 72.5° | 102.6 | 107.1 | 114.9 | 122.8 | 122.3 | 121.8 | 118.0 | 114.2 | 110.7 | 107.1 | 102.3 |
| 75° | 83.1 | 86.9 | 92.2 | 97.5 | 96.0 | 94.5 | 92.5 | 90.4 | 87.4 | 84.4 | 81.3 |
| 77.5° | 65.4 | 67.7 | 70.7 | 73.8 | 72.8 | 71.7 | 70.0 | 68.2 | 65.9 | 63.7 | 62.4 |
| 80° | 48.0 | 49.0 | 51.0 | 53.1 | 52.5 | 52.0 | 50.0 | 48.0 | 47.5 | 47.0 | 45.2 |
| 82.5° | 32.6 | 33.9 | 34.4 | 34.9 | 34.6 | 34.4 | 32.8 | 31.3 | 30.8 | 30.3 | 30.1 |
| 85° | 19.5 | 19.7 | 20.0 | 20.2 | 19.5 | 18.7 | 18.2 | 17.7 | 17.7 | 17.7 | 17.4 |
| 87.5° | 8.8 | 9.1 | 9.1 | 9.1 | 8.8 | 8.6 | 8.1 | 7.6 | 7.8 | 8.1 | 8.1 |
| 90° | 20.2 | 17.0 | 13.8 | 10.9 | 8.5 | 6.0 | 3.6 | 1.1 | 3.6 | 6.0 | 8.5 |
| 92.5° | 43.5 | 42.1 | 40.6 | 39.1 | 37.6 | 36.2 | 34.7 | 33.2 | 34.7 | 36.2 | 37.6 |
| 95° | 78.0 | 76.0 | 74.0 | 72.2 | 70.5 | 68.8 | 67.0 | 65.3 | 67.0 | 68.8 | 70.5 |
| 97.5° | 116.6 | 115.1 | 113.7 | 112.3 | 111.1 | 109.8 | 108.6 | 107.4 | 108.6 | 109.8 | 111.1 |
| 100° | 160.3 | 159.0 | 157.8 | 156.5 | 155.0 | 153.5 | 152.0 | 150.6 | 152.0 | 153.5 | 155.0 |
| 102.5° | 208.0 | 206.3 | 204.6 | 203.3 | 202.6 | 201.8 | 201.1 | 200.4 | 201.1 | 201.8 | 202.6 |
| 105° | 256.8 | 254.6 | 252.4 | 251.0 | 250.6 | 250.1 | 249.6 | 249.1 | 249.6 | 250.1 | 250.6 |
| 107.5° | 310.2 | 309.2 | 308.2 | 307.6 | 307.4 | 307.1 | 306.9 | 306.6 | 306.9 | 307.1 | 307.4 |
| 110° | 363.2 | 362.7 | 362.2 | 361.7 | 361.3 | 360.8 | 360.3 | 359.8 | 360.3 | 360.8 | 361.3 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 416.2 | 416.2 | 416.2 | 416.1 | 415.9 | 415.6 | 415.4 | 415.1 | 415.4 | 415.6 | 415.9 |
| 115° | 472.6 | 473.1 | 473.6 | 473.4 | 472.7 | 472.0 | 471.2 | 470.5 | 471.2 | 472.0 | 472.7 |
| 117.5° | 526.8 | 527.3 | 527.8 | 527.9 | 527.7 | 527.4 | 527.2 | 526.9 | 527.2 | 527.4 | 527.7 |
| 120° | 582.5 | 583.8 | 585.0 | 584.9 | 583.4 | 581.9 | 580.4 | 579.0 | 580.4 | 581.9 | 583.4 |
| 122.5° | 636.4 | 636.9 | 637.4 | 637.1 | 636.2 | 635.2 | 634.2 | 633.2 | 634.2 | 635.2 | 636.2 |
| 125° | 690.7 | 691.1 | 691.6 | 691.5 | 690.8 | 690.0 | 689.3 | 688.6 | 689.3 | 690.0 | 690.8 |
| 127.5° | 744.9 | 745.4 | 745.9 | 745.4 | 743.9 | 742.4 | 741.0 | 739.5 | 741.0 | 742.4 | 743.9 |
| 130° | 797.4 | 798.2 | 798.9 | 798.3 | 796.3 | 794.3 | 792.4 | 790.4 | 792.4 | 794.3 | 796.3 |
| 132.5° | 849.0 | 849.4 | 849.9 | 849.2 | 847.2 | 845.3 | 843.3 | 841.3 | 843.3 | 845.3 | 847.2 |
| 135° | 899.4 | 899.6 | 899.9 | 899.3 | 897.8 | 896.3 | 894.8 | 893.4 | 894.8 | 896.3 | 897.8 |
| 137.5° | 948.3 | 947.6 | 946.9 | 945.9 | 944.7 | 943.4 | 942.2 | 941.0 | 942.2 | 943.4 | 944.7 |
| 140° | 996.9 | 996.7 | 996.4 | 995.7 | 994.5 | 993.2 | 992.0 | 990.8 | 992.0 | 993.2 | 994.5 |
| 142.5° | 1042.9 | 1042.4 | 1041.9 | 1041.1 | 1039.9 | 1038.6 | 1037.4 | 1036.2 | 1037.4 | 1038.6 | 1039.9 |
| 145° | 1087.8 | 1087.1 | 1086.3 | 1085.7 | 1085.2 | 1084.7 | 1084.3 | 1083.8 | 1084.3 | 1084.7 | 1085.2 |
| 147.5° | 1131.0 | 1130.3 | 1129.5 | 1128.7 | 1127.7 | 1126.7 | 1125.7 | 1124.7 | 1125.7 | 1126.7 | 1127.7 |
| 150° | 1171.3 | 1170.9 | 1170.4 | 1169.9 | 1169.4 | 1168.9 | 1168.4 | 1167.9 | 1168.4 | 1168.9 | 1169.4 |
| 152.5° | 1207.3 | 1207.0 | 1206.8 | 1206.3 | 1205.5 | 1204.8 | 1204.1 | 1203.3 | 1204.1 | 1204.8 | 1205.5 |
| 155° | 1241.6 | 1241.3 | 1241.1 | 1241.0 | 1241.0 | 1241.0 | 1241.0 | 1241.0 | 1241.0 | 1241.0 | 1241.0 |
| 157.5° | 1272.6 | 1272.3 | 1272.1 | 1272.1 | 1272.3 | 1272.6 | 1272.8 | 1273.1 | 1272.8 | 1272.6 | 1272.3 |
| 160° | 1300.7 | 1300.7 | 1300.7 | 1301.0 | 1301.5 | 1302.0 | 1302.5 | 1303.0 | 1302.5 | 1302.0 | 1301.5 |
| 162.5° | 1326.8 | 1326.6 | 1326.3 | 1326.6 | 1327.3 | 1328.0 | 1328.8 | 1329.5 | 1328.8 | 1328.0 | 1327.3 |
| 165° | 1348.3 | 1348.3 | 1348.3 | 1348.7 | 1349.4 | 1350.2 | 1350.9 | 1351.7 | 1350.9 | 1350.2 | 1349.4 |
| 167.5° | 1366.7 | 1366.4 | 1366.2 | 1366.5 | 1367.5 | 1368.5 | 1369.5 | 1370.5 | 1369.5 | 1368.5 | 1367.5 |
| 170° | 1381.6 | 1381.6 | 1381.6 | 1382.0 | 1383.0 | 1384.0 | 1385.0 | 1386.0 | 1385.0 | 1384.0 | 1383.0 |
| 172.5° | 1393.7 | 1393.7 | 1393.7 | 1394.2 | 1395.2 | 1396.2 | 1397.2 | 1398.2 | 1397.2 | 1396.2 | 1395.2 |
| 175° | 1401.5 | 1401.5 | 1401.5 | 1402.0 | 1403.0 | 1403.9 | 1404.9 | 1405.9 | 1404.9 | 1403.9 | 1403.0 |
| 177.5° | 1405.9 | 1405.9 | 1405.9 | 1406.4 | 1407.4 | 1408.4 | 1409.4 | 1410.3 | 1409.4 | 1408.4 | 1407.4 |
| 180° | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 | 1088.8 |
| 2.5° | 1044.9 | 1035.0 | 1025.2 | 1017.6 | 1010.0 | 997.1 | 984.3 | 981.2 | 978.2 | 973.9 | 969.6 |
| 5° | 990.8 | 966.6 | 942.3 | 920.6 | 898.9 | 881.9 | 865.0 | 853.9 | 842.8 | 834.7 | 826.6 |
| 7.5° | 927.7 | 891.3 | 854.9 | 829.1 | 803.4 | 778.9 | 754.4 | 746.5 | 738.7 | 728.1 | 717.5 |
| 10° | 866.5 | 826.4 | 786.2 | 752.6 | 719.0 | 695.0 | 671.0 | 661.4 | 651.8 | 638.4 | 625.0 |
| 12.5° | 812.0 | 768.0 | 724.0 | 690.2 | 656.3 | 633.1 | 609.9 | 596.0 | 582.1 | 574.5 | 566.9 |
| 15° | 754.9 | 707.9 | 660.9 | 629.6 | 598.2 | 577.3 | 556.3 | 544.2 | 532.0 | 524.7 | 517.4 |
| 17.5° | 704.3 | 657.9 | 611.4 | 581.3 | 551.2 | 532.0 | 512.8 | 502.2 | 491.6 | 486.1 | 480.5 |
| 20° | 656.3 | 610.9 | 565.4 | 536.1 | 506.8 | 491.1 | 475.5 | 468.6 | 461.8 | 457.3 | 452.7 |
| 22.5° | 612.4 | 567.7 | 522.9 | 497.9 | 472.9 | 460.3 | 447.7 | 442.9 | 438.1 | 434.3 | 430.5 |
| 25° | 568.4 | 528.5 | 488.6 | 467.4 | 446.1 | 435.8 | 425.4 | 420.6 | 415.8 | 412.0 | 408.3 |
| 27.5° | 532.5 | 494.4 | 456.3 | 438.1 | 419.9 | 411.8 | 403.7 | 399.9 | 396.1 | 392.6 | 389.1 |
| 30° | 497.7 | 463.6 | 429.5 | 413.8 | 398.1 | 390.8 | 383.5 | 379.7 | 375.9 | 372.6 | 369.3 |
| 32.5° | 465.3 | 436.0 | 406.7 | 392.3 | 377.9 | 371.9 | 365.8 | 361.3 | 356.7 | 354.2 | 351.7 |
| 35° | 434.5 | 408.3 | 382.0 | 370.1 | 358.2 | 352.2 | 346.1 | 342.3 | 338.5 | 336.5 | 334.5 |
| 37.5° | 408.3 | 384.8 | 361.3 | 349.9 | 338.5 | 332.7 | 326.9 | 323.6 | 320.3 | 319.6 | 318.8 |
| 40° | 381.5 | 361.3 | 341.1 | 329.9 | 318.8 | 313.8 | 308.7 | 306.7 | 304.7 | 304.2 | 303.7 |
| 42.5° | 359.2 | 339.5 | 319.8 | 309.7 | 299.6 | 295.3 | 291.0 | 290.0 | 289.0 | 289.8 | 290.5 |
| 45° | 333.5 | 317.1 | 300.6 | 291.3 | 281.9 | 278.4 | 274.9 | 274.1 | 273.3 | 274.9 | 276.4 |
| 47.5° | 311.7 | 296.6 | 281.4 | 272.6 | 263.7 | 261.2 | 258.7 | 258.4 | 258.2 | 260.2 | 262.2 |
| 50° | 289.5 | 274.9 | 260.2 | 253.1 | 246.1 | 243.8 | 241.5 | 242.3 | 243.0 | 246.3 | 249.6 |
| 52.5° | 268.8 | 255.2 | 241.5 | 234.9 | 228.4 | 226.9 | 225.3 | 227.1 | 228.9 | 232.4 | 236.0 |
| 55° | 246.1 | 233.7 | 221.3 | 216.3 | 211.2 | 209.7 | 208.2 | 211.7 | 215.2 | 218.5 | 221.8 |
| 57.5° | 224.3 | 213.5 | 202.6 | 198.1 | 193.5 | 193.3 | 193.0 | 196.3 | 199.6 | 203.1 | 206.7 |
| 60° | 201.1 | 192.0 | 182.9 | 179.4 | 175.8 | 176.3 | 176.8 | 180.6 | 184.4 | 187.2 | 190.0 |
| 62.5° | 179.9 | 172.3 | 164.7 | 161.4 | 158.1 | 159.4 | 160.7 | 164.5 | 168.3 | 171.5 | 174.8 |
| 65° | 158.7 | 152.3 | 146.0 | 143.7 | 141.5 | 143.2 | 145.0 | 148.3 | 151.6 | 153.9 | 156.1 |
| 67.5° | 138.4 | 133.1 | 127.8 | 126.1 | 124.3 | 126.1 | 127.8 | 131.1 | 134.4 | 136.7 | 138.9 |
| 70° | 117.2 | 112.9 | 108.6 | 107.4 | 106.1 | 108.1 | 110.1 | 112.9 | 115.7 | 118.0 | 120.3 |
| 72.5° | 97.5 | 94.2 | 90.9 | 90.7 | 90.4 | 92.2 | 94.0 | 96.8 | 99.5 | 101.1 | 102.6 |
| 75° | 78.3 | 76.5 | 74.8 | 74.5 | 74.3 | 76.0 | 77.8 | 79.3 | 80.8 | 82.1 | 83.4 |
| 77.5° | 61.1 | 59.6 | 58.1 | 58.4 | 58.6 | 59.9 | 61.1 | 62.7 | 64.2 | 64.9 | 65.7 |
| 80° | 43.5 | 42.9 | 42.4 | 42.9 | 43.5 | 44.5 | 45.5 | 46.5 | 47.5 | 48.0 | 48.5 |
| 82.5° | 29.8 | 29.3 | 28.8 | 29.6 | 30.3 | 31.1 | 31.8 | 32.6 | 33.3 | 33.6 | 33.9 |
| 85° | 17.2 | 17.9 | 18.7 | 18.7 | 18.7 | 18.9 | 19.2 | 19.5 | 19.7 | 19.5 | 19.2 |
| 87.5° | 8.1 | 8.3 | 8.6 | 8.6 | 8.6 | 8.8 | 9.1 | 9.1 | 9.1 | 8.8 | 8.6 |
| 90° | 10.9 | 13.8 | 17.0 | 20.2 | 23.4 | 26.6 | 27.6 | 28.5 | 29.5 | 30.5 | 31.2 |
| 92.5° | 39.1 | 40.6 | 42.1 | 43.5 | 45.0 | 46.5 | 47.2 | 48.0 | 48.7 | 49.4 | 49.6 |
| 95° | 72.2 | 74.0 | 76.0 | 78.0 | 80.0 | 81.9 | 82.9 | 83.9 | 84.9 | 85.9 | 86.3 |
| 97.5° | 112.3 | 113.7 | 115.1 | 116.6 | 118.1 | 119.6 | 120.8 | 122.0 | 123.2 | 124.5 | 125.0 |
| 100° | 156.5 | 157.8 | 159.0 | 160.3 | 161.5 | 162.7 | 163.5 | 164.2 | 164.9 | 165.7 | 166.3 |
| 102.5° | 203.3 | 204.6 | 206.3 | 208.0 | 209.7 | 211.4 | 212.2 | 212.9 | 213.7 | 214.4 | 214.6 |
| 105° | 251.0 | 252.4 | 254.6 | 256.8 | 259.0 | 261.3 | 261.3 | 261.3 | 261.3 | 261.3 | 261.5 |
| 107.5° | 307.6 | 308.2 | 309.2 | 310.2 | 311.2 | 312.2 | 312.9 | 313.7 | 314.4 | 315.1 | 315.4 |
| 110° | 361.7 | 362.2 | 362.7 | 363.2 | 363.7 | 364.2 | 365.2 | 366.2 | 367.2 | 368.1 | 368.4 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 416.1 | 416.2 | 416.2 | 416.2 | 416.2 | 416.2 | 417.5 | 418.7 | 419.9 | 421.2 | 421.8 |
| 115° | 473.4 | 473.6 | 473.1 | 472.6 | 472.1 | 471.6 | 471.8 | 472.1 | 472.3 | 472.6 | 472.6 |
| 117.5° | 527.9 | 527.8 | 527.3 | 526.8 | 526.3 | 525.8 | 525.8 | 525.8 | 525.8 | 525.8 | 525.5 |
| 120° | 584.9 | 585.0 | 583.8 | 582.5 | 581.3 | 580.1 | 579.8 | 579.6 | 579.3 | 579.1 | 578.7 |
| 122.5° | 637.1 | 637.4 | 636.9 | 636.4 | 635.9 | 635.4 | 634.7 | 633.9 | 633.2 | 632.5 | 631.7 |
| 125° | 691.5 | 691.6 | 691.1 | 690.7 | 690.2 | 689.7 | 688.7 | 687.7 | 686.7 | 685.7 | 684.7 |
| 127.5° | 745.4 | 745.9 | 745.4 | 744.9 | 744.4 | 743.9 | 742.4 | 741.0 | 739.5 | 738.0 | 736.8 |
| 130° | 798.3 | 798.9 | 798.2 | 797.4 | 796.7 | 795.9 | 795.0 | 794.0 | 793.0 | 792.0 | 790.7 |
| 132.5° | 849.2 | 849.9 | 849.4 | 849.0 | 848.5 | 848.0 | 846.7 | 845.5 | 844.3 | 843.1 | 841.8 |
| 135° | 899.3 | 899.9 | 899.6 | 899.4 | 899.1 | 898.9 | 897.9 | 896.9 | 895.9 | 895.0 | 894.2 |
| 137.5° | 945.9 | 946.9 | 947.6 | 948.3 | 949.1 | 949.8 | 948.6 | 947.4 | 946.1 | 944.9 | 943.9 |
| 140° | 995.7 | 996.4 | 996.7 | 996.9 | 997.2 | 997.4 | 997.2 | 996.9 | 996.7 | 996.4 | 995.5 |
| 142.5° | 1041.1 | 1041.9 | 1042.4 | 1042.9 | 1043.4 | 1043.9 | 1043.7 | 1043.4 | 1043.2 | 1042.9 | 1042.2 |
| 145° | 1085.7 | 1086.3 | 1087.1 | 1087.8 | 1088.6 | 1089.3 | 1089.1 | 1088.8 | 1088.6 | 1088.3 | 1087.7 |
| 147.5° | 1128.7 | 1129.5 | 1130.3 | 1131.0 | 1131.7 | 1132.5 | 1132.5 | 1132.5 | 1132.5 | 1132.5 | 1131.7 |
| 150° | 1169.9 | 1170.4 | 1170.9 | 1171.3 | 1171.8 | 1172.3 | 1172.3 | 1172.3 | 1172.3 | 1172.3 | 1171.6 |
| 152.5° | 1206.3 | 1206.8 | 1207.0 | 1207.3 | 1207.5 | 1207.8 | 1208.2 | 1208.7 | 1209.2 | 1209.7 | 1209.4 |
| 155° | 1241.0 | 1241.1 | 1241.3 | 1241.6 | 1241.8 | 1242.1 | 1243.1 | 1244.0 | 1245.0 | 1246.0 | 1245.6 |
| 157.5° | 1272.1 | 1272.1 | 1272.3 | 1272.6 | 1272.8 | 1273.1 | 1274.0 | 1275.0 | 1276.0 | 1277.0 | 1276.8 |
| 160° | 1301.0 | 1300.7 | 1300.7 | 1300.7 | 1300.7 | 1300.7 | 1302.0 | 1303.2 | 1304.4 | 1305.7 | 1305.8 |
| 162.5° | 1326.6 | 1326.3 | 1326.6 | 1326.8 | 1327.1 | 1327.3 | 1328.5 | 1329.8 | 1331.0 | 1332.2 | 1332.0 |
| 165° | 1348.7 | 1348.3 | 1348.3 | 1348.3 | 1348.3 | 1348.3 | 1349.8 | 1351.3 | 1352.8 | 1354.2 | 1354.1 |
| 167.5° | 1366.5 | 1366.2 | 1366.4 | 1366.7 | 1366.9 | 1367.2 | 1368.6 | 1370.1 | 1371.6 | 1373.1 | 1373.1 |
| 170° | 1382.0 | 1381.6 | 1381.6 | 1381.6 | 1381.6 | 1381.6 | 1383.3 | 1385.0 | 1386.7 | 1388.4 | 1388.4 |
| 172.5° | 1394.2 | 1393.7 | 1393.7 | 1393.7 | 1393.7 | 1393.7 | 1395.2 | 1396.7 | 1398.2 | 1399.6 | 1399.5 |
| 175° | 1402.0 | 1401.5 | 1401.5 | 1401.5 | 1401.5 | 1401.5 | 1403.0 | 1404.4 | 1405.9 | 1407.4 | 1407.3 |
| 177.5° | 1406.4 | 1405.9 | 1405.9 | 1405.9 | 1405.9 | 1405.9 | 1407.4 | 1408.9 | 1410.3 | 1411.8 | 1411.7 |
| 180° | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 | 1409.2 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|--------|--------|--------|--------|--------|
| 0° | 1088.8 | 1088.8 | 1088.8 | 1088.8 |
| 2.5° | 967.8 | 966.1 | 959.0 | 951.9 |
| 5° | 820.5 | 814.5 | 812.5 | 810.4 |
| 7.5° | 717.0 | 716.5 | 705.9 | 695.2 |
| 10° | 625.8 | 626.5 | 616.9 | 607.3 |
| 12.5° | 560.6 | 554.3 | 553.5 | 552.8 |
| 15° | 511.6 | 505.8 | 504.8 | 503.7 |
| 17.5° | 477.0 | 473.4 | 472.4 | 471.4 |
| 20° | 450.7 | 448.7 | 446.9 | 445.1 |
| 22.5° | 428.0 | 425.4 | 423.9 | 422.4 |
| 25° | 406.0 | 403.7 | 403.2 | 402.7 |
| 27.5° | 386.3 | 383.5 | 383.5 | 383.5 |
| 30° | 367.6 | 365.8 | 365.1 | 364.3 |
| 32.5° | 350.1 | 348.6 | 348.6 | 348.6 |
| 35° | 333.7 | 333.0 | 332.0 | 330.9 |
| 37.5° | 318.8 | 318.8 | 318.3 | 317.8 |
| 40° | 304.4 | 305.2 | 305.2 | 305.2 |
| 42.5° | 291.3 | 292.0 | 292.0 | 292.0 |
| 45° | 277.6 | 278.9 | 279.4 | 279.9 |
| 47.5° | 264.3 | 266.3 | 266.8 | 267.3 |
| 50° | 251.1 | 252.6 | 252.9 | 253.1 |
| 52.5° | 237.7 | 239.5 | 240.8 | 242.0 |
| 55° | 223.6 | 225.3 | 226.1 | 226.9 |
| 57.5° | 208.4 | 210.2 | 210.4 | 210.7 |
| 60° | 191.7 | 193.5 | 194.0 | 194.5 |
| 62.5° | 175.8 | 176.8 | 177.3 | 177.9 |
| 65° | 157.6 | 159.2 | 160.2 | 161.2 |
| 67.5° | 140.2 | 141.5 | 141.5 | 141.5 |
| 70° | 120.8 | 121.3 | 122.0 | 122.8 |
| 72.5° | 102.8 | 103.1 | 103.1 | 103.1 |
| 75° | 83.9 | 84.4 | 84.6 | 84.9 |
| 77.5° | 65.9 | 66.2 | 66.2 | 66.2 |
| 80° | 48.3 | 48.0 | 48.0 | 48.0 |
| 82.5° | 33.1 | 32.3 | 32.3 | 32.3 |
| 85° | 18.9 | 18.7 | 18.9 | 19.2 |
| 87.5° | 8.6 | 8.6 | 8.6 | 8.6 |
| 90° | 31.7 | 32.2 | 32.7 | 33.2 |
| 92.5° | 49.1 | 48.6 | 48.1 | 47.6 |
| 95° | 86.3 | 86.3 | 86.3 | 86.3 |
| 97.5° | 124.7 | 124.5 | 124.2 | 124.0 |
| 100° | 166.8 | 167.3 | 167.8 | 168.3 |
| 102.5° | 214.4 | 214.1 | 213.9 | 213.7 |
| 105° | 262.0 | 262.5 | 263.0 | 263.5 |
| 107.5° | 315.1 | 314.9 | 314.6 | 314.4 |
| 110° | 367.9 | 367.4 | 366.9 | 366.4 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|--------|--------|--------|--------|--------|
| 112.5° | 421.8 | 421.8 | 421.8 | 421.8 |
| 115° | 472.3 | 472.1 | 471.8 | 471.6 |
| 117.5° | 524.7 | 524.0 | 523.2 | 522.5 |
| 120° | 578.2 | 577.7 | 577.2 | 576.8 |
| 122.5° | 631.0 | 630.3 | 629.5 | 628.8 |
| 125° | 683.8 | 682.8 | 681.8 | 680.8 |
| 127.5° | 735.8 | 734.8 | 733.8 | 732.8 |
| 130° | 788.9 | 787.2 | 785.5 | 783.8 |
| 132.5° | 840.6 | 839.4 | 838.1 | 836.9 |
| 135° | 893.7 | 893.2 | 892.7 | 892.3 |
| 137.5° | 943.2 | 942.4 | 941.7 | 941.0 |
| 140° | 993.7 | 992.0 | 990.3 | 988.6 |
| 142.5° | 1041.0 | 1039.7 | 1038.5 | 1037.3 |
| 145° | 1086.7 | 1085.7 | 1084.7 | 1083.8 |
| 147.5° | 1130.3 | 1128.8 | 1127.3 | 1125.8 |
| 150° | 1170.1 | 1168.6 | 1167.2 | 1165.7 |
| 152.5° | 1208.1 | 1206.9 | 1205.7 | 1204.4 |
| 155° | 1243.9 | 1242.2 | 1240.5 | 1238.7 |
| 157.5° | 1275.3 | 1273.8 | 1272.3 | 1270.9 |
| 160° | 1304.8 | 1303.8 | 1302.8 | 1301.8 |
| 162.5° | 1330.3 | 1328.5 | 1326.8 | 1325.1 |
| 165° | 1352.4 | 1350.7 | 1349.0 | 1347.2 |
| 167.5° | 1371.6 | 1370.1 | 1368.6 | 1367.2 |
| 170° | 1386.7 | 1385.0 | 1383.3 | 1381.6 |
| 172.5° | 1397.8 | 1396.1 | 1394.3 | 1392.6 |
| 175° | 1405.5 | 1403.8 | 1402.1 | 1400.4 |
| 177.5° | 1410.0 | 1408.2 | 1406.5 | 1404.8 |
| 180° | 1409.2 | 1409.2 | 1409.2 | 1409.2 |



TEST NUMBER: P831325

CATALOG NUMBER: S123DIP-S340D1025U850-4F0-1E-UDD-G1

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 | 10.02 | 10.71 | 11.13 | 11.81 | 13.33 | 12.25 | 12.95 | 13.36 | 14.05 | 15.57 |
| | 3H | 11.65 | 12.27 | 12.77 | 13.38 | 14.92 | 13.67 | 14.29 | 14.79 | 15.40 | 16.94 |
| | 4H | 12.22 | 12.81 | 13.35 | 13.92 | 15.47 | 14.11 | 14.70 | 15.24 | 15.81 | 17.35 |
| | 6H | 12.58 | 13.13 | 13.72 | 14.24 | 15.79 | 14.38 | 14.92 | 15.51 | 16.03 | 17.59 |
| | 8H | 12.68 | 13.19 | 13.82 | 14.32 | 15.87 | 14.43 | 14.95 | 15.57 | 16.08 | 17.63 |
| | 12H | 12.72 | 13.20 | 13.86 | 14.33 | 15.90 | 14.45 | 14.94 | 15.59 | 16.06 | 17.63 |
| 4H | 2H | 10.57 | 11.16 | 11.71 | 12.27 | 13.82 | 12.40 | 12.99 | 13.53 | 14.10 | 15.64 |
| | 3H | 12.39 | 12.88 | 13.53 | 14.01 | 15.57 | 14.00 | 14.49 | 15.14 | 15.63 | 17.19 |
| | 4H | 13.08 | 13.53 | 14.22 | 14.66 | 16.23 | 14.58 | 15.03 | 15.72 | 16.16 | 17.73 |
| | 6H | 13.54 | 13.93 | 14.70 | 15.08 | 16.65 | 14.97 | 15.36 | 16.12 | 16.51 | 18.08 |
| | 8H | 13.68 | 14.04 | 14.83 | 15.18 | 16.76 | 15.08 | 15.44 | 16.23 | 16.58 | 18.17 |
| | 12H | 13.74 | 14.06 | 14.90 | 15.22 | 16.80 | 15.12 | 15.45 | 16.29 | 16.60 | 18.19 |
| 8H | 4H | 13.33 | 13.69 | 14.48 | 14.83 | 16.42 | 14.67 | 15.03 | 15.82 | 16.17 | 17.76 |
| | 6H | 13.92 | 14.21 | 15.08 | 15.40 | 16.97 | 15.17 | 15.47 | 16.34 | 16.65 | 18.23 |
| | 8H | 14.12 | 14.38 | 15.30 | 15.54 | 17.14 | 15.35 | 15.61 | 16.52 | 16.77 | 18.37 |
| | 12H | 14.24 | 14.47 | 15.42 | 15.63 | 17.26 | 15.44 | 15.67 | 16.62 | 16.83 | 18.46 |
| 12H | 4H | 13.33 | 13.65 | 14.49 | 14.80 | 16.39 | 14.64 | 14.97 | 15.81 | 16.12 | 17.71 |
| | 6H | 13.97 | 14.22 | 15.14 | 15.39 | 16.99 | 15.18 | 15.44 | 16.36 | 16.60 | 18.20 |
| | 8H | 14.19 | 14.42 | 15.37 | 15.58 | 17.21 | 15.37 | 15.60 | 16.55 | 16.76 | 18.39 |