

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332514-830

Luminaire Tested: **SA4XXDIP-C350D810U830-4F0-1E-UDD-F**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P332514-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-C350D810U830-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 350 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 810 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

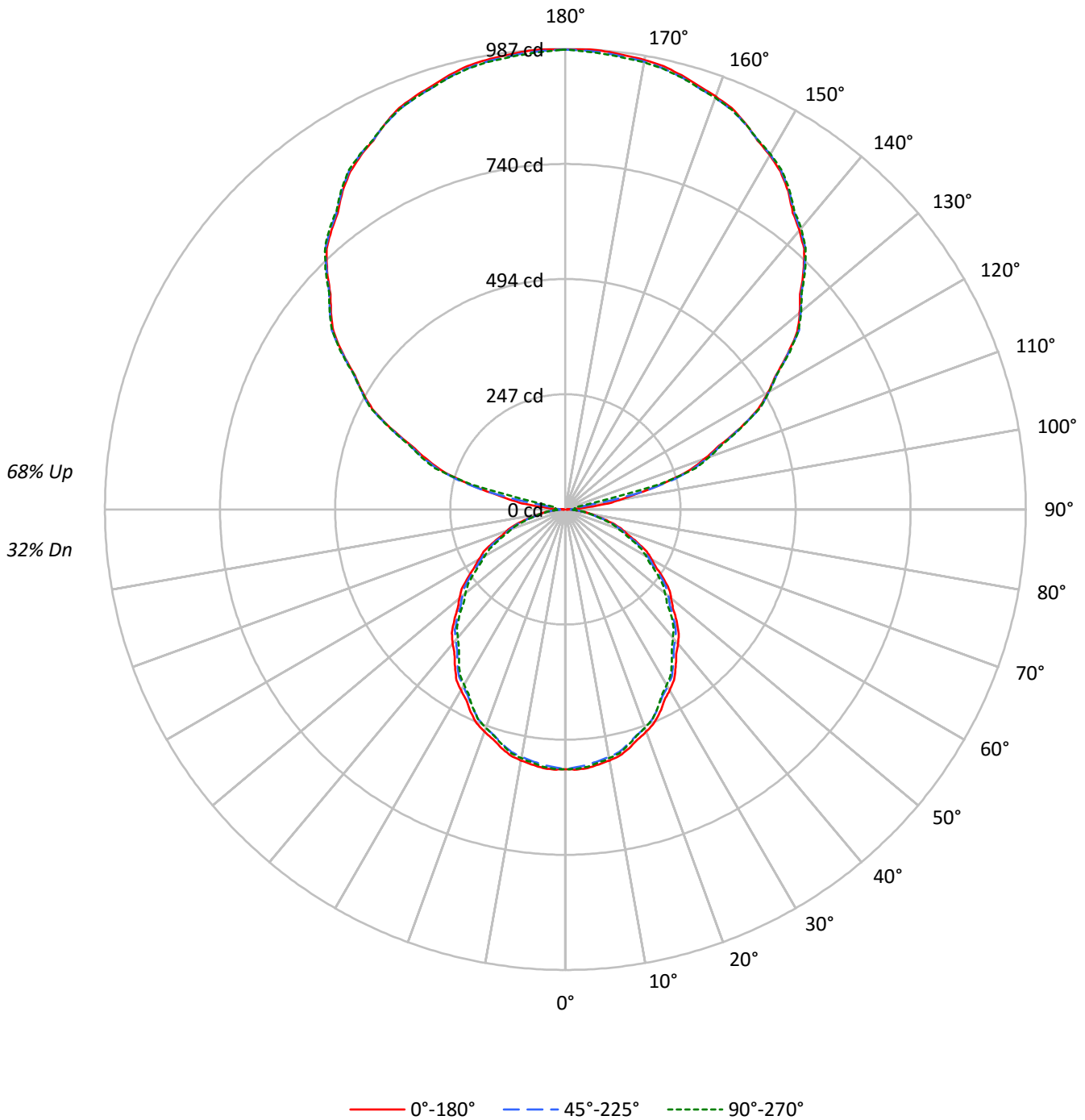
Lumens per Lamp: N/A  
Luminaire Lumens: 4479.5 lumens  
Efficiency: N/A  
Efficacy: 143.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P332514-830  
CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

### Luminous Intensity Polar Plot





TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**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 | 0  |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 103 | 103 | 103 | 103 | 93 | 93 | 93 | 93 | 73 | 73 | 73 | 56 | 56 | 56 | 40 | 40 | 40 | 32 |
| 1   | 94  | 89  | 86  | 82  | 84 | 81 | 77 | 75 | 64 | 62 | 60 | 49 | 47 | 46 | 35 | 34 | 33 | 27 |
| 2   | 85  | 78  | 72  | 67  | 76 | 70 | 65 | 61 | 56 | 53 | 50 | 43 | 41 | 39 | 31 | 29 | 28 | 22 |
| 3   | 78  | 69  | 61  | 56  | 70 | 62 | 56 | 51 | 49 | 45 | 42 | 38 | 35 | 33 | 27 | 25 | 24 | 19 |
| 4   | 71  | 61  | 53  | 47  | 64 | 55 | 48 | 43 | 44 | 39 | 35 | 34 | 30 | 28 | 24 | 22 | 20 | 16 |
| 5   | 65  | 54  | 46  | 40  | 58 | 49 | 42 | 37 | 39 | 34 | 30 | 30 | 27 | 24 | 22 | 20 | 18 | 14 |
| 6   | 60  | 48  | 40  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 26 | 27 | 24 | 21 | 20 | 17 | 16 | 12 |
| 7   | 55  | 43  | 36  | 30  | 50 | 39 | 33 | 28 | 32 | 27 | 23 | 25 | 21 | 18 | 18 | 16 | 14 | 11 |
| 8   | 51  | 39  | 32  | 27  | 46 | 36 | 29 | 25 | 29 | 24 | 20 | 23 | 19 | 16 | 17 | 14 | 12 | 10 |
| 9   | 48  | 36  | 28  | 24  | 43 | 33 | 26 | 22 | 26 | 22 | 18 | 21 | 17 | 15 | 15 | 13 | 11 | 9  |
| 10  | 44  | 33  | 26  | 21  | 40 | 30 | 24 | 19 | 24 | 20 | 16 | 19 | 16 | 13 | 14 | 12 | 10 | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4495 | 4495 | 4495 |
| 5°  | 4508 | 4454 | 4486 |
| 10° | 4480 | 4418 | 4440 |
| 15° | 4425 | 4355 | 4367 |
| 20° | 4354 | 4277 | 4281 |
| 25° | 4272 | 4188 | 4177 |
| 30° | 4172 | 4084 | 4047 |
| 35° | 4066 | 3975 | 3921 |
| 40° | 3958 | 3851 | 3780 |
| 45° | 3846 | 3729 | 3658 |
| 50° | 3720 | 3620 | 3508 |
| 55° | 3586 | 3478 | 3365 |
| 60° | 3450 | 3321 | 3219 |
| 65° | 3299 | 3171 | 3043 |
| 70° | 3127 | 2969 | 2854 |
| 75° | 2866 | 2729 | 2658 |
| 80° | 2552 | 2450 | 2385 |
| 85° | 2232 | 2149 | 2103 |



TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 52.4   | 1.2       |
| 10°-20°   | 147.7  | 3.3       |
| 20°-30°   | 217.4  | 4.9       |
| 30°-40°   | 252.8  | 5.6       |
| 40°-50°   | 252.8  | 5.6       |
| 50°-60°   | 221.1  | 4.9       |
| 60°-70°   | 164.2  | 3.7       |
| 70°-80°   | 93.3   | 2.1       |
| 80°-90°   | 29.8   | 0.7       |
| 90°-100°  | 33.7   | 0.8       |
| 100°-110° | 214.9  | 4.8       |
| 110°-120° | 411.0  | 9.2       |
| 120°-130° | 521.8  | 11.6      |
| 130°-140° | 558.3  | 12.5      |
| 140°-150° | 522.1  | 11.7      |
| 150°-160° | 421.0  | 9.4       |
| 160°-170° | 271.5  | 6.1       |
| 170°-180° | 93.6   | 2.1       |
| 0°-30°    | 417.6  | 9.3       |
| 0°-40°    | 670.4  | 15.0      |
| 0°-60°    | 1144.3 | 25.5      |
| 0°-90°    | 1431.6 | 32.0      |
| 90°-120°  | 659.6  | 14.7      |
| 90°-150°  | 2261.8 | 50.5      |
| 90°-180°  | 3048.0 | 68.0      |
| 0°-180°   | 4479.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 557 | 557   | 557 | 557   | 557 |      |
| 5°   | 556 | 554   | 550 | 554   | 554 | 53   |
| 15°  | 530 | 528   | 521 | 524   | 522 | 149  |
| 25°  | 480 | 476   | 470 | 471   | 469 | 221  |
| 35°  | 413 | 409   | 403 | 400   | 398 | 258  |
| 45°  | 337 | 333   | 327 | 322   | 320 | 260  |
| 55°  | 255 | 253   | 247 | 242   | 239 | 228  |
| 65°  | 173 | 170   | 166 | 162   | 159 | 171  |
| 75°  | 92  | 90    | 88  | 86    | 85  | 98   |
| 85°  | 24  | 24    | 23  | 23    | 23  | 27   |
| 90°  | 2   | 10    | 16  | 20    | 22  | 3    |
| 95°  | 40  | 17    | 16  | 20    | 21  | 52   |
| 105° | 222 | 226   | 230 | 235   | 210 | 232  |
| 115° | 414 | 416   | 416 | 417   | 417 | 407  |
| 125° | 582 | 585   | 584 | 586   | 587 | 520  |
| 135° | 722 | 722   | 724 | 726   | 727 | 556  |
| 145° | 833 | 835   | 835 | 836   | 837 | 520  |
| 155° | 913 | 914   | 912 | 914   | 912 | 421  |
| 165° | 963 | 960   | 960 | 965   | 959 | 272  |
| 175° | 985 | 981   | 982 | 987   | 979 | 94   |
| 180° | 985 | 985   | 985 | 985   | 985 |      |



TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 |
| 2.5°   | 558.2 | 558.0 | 557.7 | 557.5 | 557.2 | 556.7 | 555.8 | 555.0 | 554.1 | 553.2 | 554.0 |
| 5°     | 556.3 | 555.9 | 555.5 | 555.2 | 554.8 | 554.0 | 552.9 | 551.9 | 550.7 | 549.6 | 550.7 |
| 7.5°   | 551.2 | 550.7 | 550.4 | 550.0 | 549.6 | 548.7 | 547.5 | 546.4 | 545.2 | 543.9 | 544.8 |
| 10°    | 546.5 | 546.1 | 545.7 | 545.4 | 545.0 | 544.1 | 542.8 | 541.5 | 540.3 | 538.9 | 539.7 |
| 12.5°  | 540.5 | 540.1 | 539.7 | 539.2 | 538.9 | 538.0 | 536.6 | 535.3 | 533.9 | 532.5 | 533.4 |
| 15°    | 529.5 | 529.1 | 528.8 | 528.4 | 528.0 | 527.1 | 525.6 | 524.1 | 522.5 | 521.1 | 521.7 |
| 17.5°  | 516.4 | 515.9 | 515.5 | 515.0 | 514.4 | 513.5 | 512.1 | 510.7 | 509.3 | 507.8 | 508.2 |
| 20°    | 506.8 | 506.3 | 505.9 | 505.3 | 504.8 | 503.9 | 502.4 | 500.9 | 499.4 | 497.9 | 498.2 |
| 22.5°  | 496.4 | 495.8 | 495.1 | 494.5 | 493.8 | 492.8 | 491.3 | 489.8 | 488.3 | 486.8 | 487.4 |
| 25°    | 479.6 | 478.9 | 478.2 | 477.5 | 476.8 | 475.8 | 474.4 | 473.0 | 471.6 | 470.2 | 470.3 |
| 27.5°  | 460.3 | 459.6 | 458.9 | 458.2 | 457.5 | 456.5 | 455.2 | 453.9 | 452.6 | 451.3 | 451.1 |
| 30°    | 447.5 | 446.7 | 445.9 | 445.1 | 444.3 | 443.3 | 442.0 | 440.6 | 439.4 | 438.1 | 437.7 |
| 32.5°  | 433.9 | 433.2 | 432.4 | 431.8 | 431.0 | 430.0 | 428.7 | 427.3 | 425.9 | 424.5 | 424.0 |
| 35°    | 412.6 | 412.0 | 411.3 | 410.6 | 409.9 | 408.9 | 407.5 | 406.0 | 404.7 | 403.3 | 402.7 |
| 37.5°  | 390.3 | 389.6 | 389.0 | 388.4 | 387.8 | 386.7 | 385.2 | 383.7 | 382.2 | 380.7 | 379.9 |
| 40°    | 375.6 | 374.8 | 374.1 | 373.2 | 372.5 | 371.4 | 369.9 | 368.3 | 366.8 | 365.4 | 364.4 |
| 42.5°  | 360.0 | 359.5 | 359.0 | 358.5 | 358.1 | 356.9 | 355.3 | 353.6 | 352.0 | 350.4 | 349.2 |
| 45°    | 336.9 | 336.1 | 335.5 | 334.8 | 334.0 | 332.9 | 331.3 | 329.7 | 328.2 | 326.6 | 325.5 |
| 47.5°  | 312.6 | 312.2 | 311.7 | 311.2 | 310.8 | 309.8 | 308.3 | 306.8 | 305.4 | 303.9 | 302.7 |
| 50°    | 296.2 | 295.9 | 295.5 | 295.0 | 294.6 | 293.8 | 292.4 | 291.0 | 289.5 | 288.2 | 286.8 |
| 52.5°  | 280.2 | 279.7 | 279.2 | 278.7 | 278.2 | 277.3 | 275.8 | 274.4 | 272.9 | 271.5 | 270.2 |
| 55°    | 254.8 | 254.5 | 254.1 | 253.8 | 253.5 | 252.7 | 251.3 | 250.0 | 248.5 | 247.1 | 246.0 |
| 57.5°  | 230.5 | 230.2 | 229.8 | 229.5 | 229.1 | 228.3 | 226.9 | 225.6 | 224.1 | 222.8 | 221.7 |
| 60°    | 213.7 | 213.2 | 212.7 | 212.2 | 211.7 | 210.8 | 209.5 | 208.2 | 207.0 | 205.7 | 204.8 |
| 62.5°  | 197.3 | 196.9 | 196.4 | 196.0 | 195.6 | 194.7 | 193.3 | 192.0 | 190.6 | 189.3 | 188.4 |
| 65°    | 172.7 | 172.2 | 171.6 | 171.2 | 170.7 | 169.9 | 168.9 | 168.0 | 166.9 | 166.0 | 164.9 |
| 67.5°  | 147.9 | 147.4 | 146.9 | 146.5 | 146.0 | 145.3 | 144.4 | 143.5 | 142.5 | 141.5 | 140.5 |
| 70°    | 132.5 | 131.8 | 131.1 | 130.4 | 129.7 | 128.9 | 128.2 | 127.4 | 126.6 | 125.8 | 125.0 |
| 72.5°  | 116.1 | 115.4 | 114.7 | 114.0 | 113.3 | 112.6 | 112.0 | 111.4 | 110.7 | 110.1 | 109.4 |
| 75°    | 91.9  | 91.4  | 91.0  | 90.4  | 89.9  | 89.4  | 89.0  | 88.4  | 87.9  | 87.5  | 87.1  |
| 77.5°  | 68.8  | 68.6  | 68.3  | 68.1  | 68.0  | 67.6  | 67.2  | 66.7  | 66.3  | 65.9  | 65.7  |
| 80°    | 54.9  | 54.6  | 54.3  | 54.0  | 53.7  | 53.4  | 53.3  | 53.1  | 52.9  | 52.7  | 52.4  |
| 82.5°  | 41.3  | 41.2  | 41.0  | 40.9  | 40.7  | 40.6  | 40.6  | 40.6  | 40.5  | 40.5  | 40.4  |
| 85°    | 24.1  | 24.1  | 24.1  | 24.1  | 24.1  | 24.0  | 23.8  | 23.6  | 23.4  | 23.2  | 23.2  |
| 87.5°  | 9.7   | 10.0  | 10.3  | 10.6  | 10.8  | 11.1  | 11.2  | 11.4  | 11.6  | 11.8  | 12.0  |
| 90°    | 2.2   | 4.1   | 5.8   | 7.6   | 9.4   | 10.9  | 12.3  | 13.6  | 14.9  | 16.2  | 17.2  |
| 92.5°  | 9.3   | 9.4   | 9.5   | 9.6   | 9.7   | 10.4  | 11.7  | 13.0  | 14.3  | 15.6  | 16.6  |
| 95°    | 40.5  | 35.0  | 29.4  | 23.8  | 18.3  | 15.6  | 15.7  | 15.9  | 16.0  | 16.2  | 17.2  |
| 97.5°  | 86.1  | 89.5  | 93.0  | 96.5  | 100.0 | 92.6  | 74.3  | 56.0  | 37.7  | 19.4  | 19.5  |
| 100°   | 120.8 | 123.9 | 126.8 | 129.7 | 132.6 | 122.8 | 100.2 | 77.7  | 55.0  | 32.4  | 29.6  |
| 102.5° | 159.8 | 161.9 | 164.1 | 166.3 | 168.4 | 168.1 | 165.0 | 162.1 | 159.2 | 156.3 | 126.2 |
| 105°   | 221.8 | 222.8 | 223.8 | 224.8 | 225.7 | 226.7 | 227.4 | 228.3 | 229.1 | 229.9 | 231.4 |
| 107.5° | 279.5 | 279.9 | 280.4 | 281.0 | 281.4 | 282.2 | 283.3 | 284.5 | 285.6 | 286.7 | 287.4 |
| 110°   | 318.4 | 318.9 | 319.3 | 319.8 | 320.4 | 321.0 | 322.1 | 323.0 | 324.0 | 325.0 | 325.4 |



TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 356.1 | 356.9 | 357.9 | 358.7 | 359.7 | 360.3 | 360.8 | 361.2 | 361.7 | 362.1 | 362.1 |
| 115°   | 414.2 | 414.6 | 415.2 | 415.7 | 416.1 | 416.3 | 416.1 | 415.9 | 415.8 | 415.7 | 415.9 |
| 117.5° | 466.5 | 467.1 | 467.8 | 468.4 | 469.1 | 469.7 | 470.0 | 470.3 | 470.7 | 471.1 | 471.0 |
| 120°   | 501.9 | 502.6 | 503.2 | 503.9 | 504.4 | 504.7 | 504.5 | 504.4 | 504.3 | 504.1 | 504.4 |
| 122.5° | 534.9 | 535.3 | 535.6 | 536.0 | 536.5 | 536.8 | 537.0 | 537.2 | 537.4 | 537.7 | 537.9 |
| 125°   | 582.2 | 582.9 | 583.5 | 584.2 | 584.8 | 584.9 | 584.7 | 584.4 | 584.0 | 583.7 | 584.2 |
| 127.5° | 627.0 | 627.2 | 627.4 | 627.5 | 627.6 | 628.1 | 628.9 | 629.6 | 630.4 | 631.1 | 631.0 |
| 130°   | 655.9 | 656.1 | 656.2 | 656.4 | 656.6 | 656.9 | 657.3 | 657.9 | 658.4 | 658.8 | 659.0 |
| 132.5° | 682.4 | 682.7 | 683.1 | 683.3 | 683.6 | 684.1 | 684.7 | 685.3 | 685.9 | 686.5 | 686.7 |
| 135°   | 722.3 | 722.1 | 721.9 | 721.7 | 721.6 | 721.8 | 722.5 | 723.1 | 723.8 | 724.4 | 724.7 |
| 137.5° | 757.4 | 757.5 | 757.6 | 757.6 | 757.7 | 758.1 | 758.8 | 759.6 | 760.3 | 761.0 | 761.4 |
| 140°   | 780.4 | 780.8 | 781.1 | 781.5 | 781.7 | 782.1 | 782.4 | 782.8 | 783.1 | 783.3 | 783.9 |
| 142.5° | 801.1 | 801.6 | 802.3 | 802.9 | 803.4 | 803.8 | 804.0 | 804.3 | 804.5 | 804.6 | 805.0 |
| 145°   | 832.7 | 833.3 | 833.8 | 834.2 | 834.7 | 835.0 | 835.0 | 835.0 | 835.0 | 835.0 | 835.2 |
| 147.5° | 858.0 | 858.9 | 859.8 | 860.7 | 861.7 | 862.0 | 861.9 | 861.7 | 861.5 | 861.4 | 861.5 |
| 150°   | 876.3 | 876.9 | 877.6 | 878.3 | 878.8 | 879.1 | 878.9 | 878.8 | 878.6 | 878.4 | 878.4 |
| 152.5° | 891.6 | 892.1 | 892.6 | 893.2 | 893.7 | 893.8 | 893.5 | 893.2 | 892.9 | 892.6 | 892.9 |
| 155°   | 913.1 | 913.2 | 913.4 | 913.6 | 913.8 | 913.6 | 913.1 | 912.6 | 912.1 | 911.6 | 912.3 |
| 157.5° | 931.2 | 931.1 | 931.0 | 930.9 | 930.9 | 930.5 | 929.9 | 929.4 | 928.9 | 928.3 | 929.2 |
| 160°   | 941.9 | 941.3 | 940.8 | 940.4 | 939.9 | 939.5 | 939.4 | 939.2 | 939.1 | 938.9 | 939.9 |
| 162.5° | 951.3 | 950.6 | 950.0 | 949.4 | 948.8 | 948.4 | 948.2 | 948.1 | 947.9 | 947.7 | 948.8 |
| 165°   | 963.2 | 962.4 | 961.6 | 960.7 | 960.0 | 959.5 | 959.5 | 959.5 | 959.5 | 959.5 | 960.8 |
| 167.5° | 972.6 | 971.8 | 970.9 | 970.1 | 969.2 | 968.7 | 968.7 | 968.6 | 968.5 | 968.4 | 969.8 |
| 170°   | 978.0 | 976.9 | 976.0 | 975.0 | 974.0 | 973.6 | 973.7 | 973.9 | 974.1 | 974.3 | 975.5 |
| 172.5° | 981.5 | 980.5 | 979.5 | 978.5 | 977.6 | 977.1 | 977.3 | 977.5 | 977.6 | 977.8 | 979.1 |
| 175°   | 985.3 | 984.3 | 983.4 | 982.4 | 981.4 | 981.0 | 981.2 | 981.3 | 981.5 | 981.7 | 983.1 |
| 177.5° | 987.1 | 986.2 | 985.2 | 984.3 | 983.4 | 983.1 | 983.4 | 983.6 | 983.9 | 984.1 | 985.1 |
| 180°   | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 |



TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°     | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 | 556.8 |
| 2.5°   | 554.8 | 555.6 | 556.4 | 556.8 | 556.7 | 556.6 | 556.5 | 556.4 |
| 5°     | 551.9 | 552.9 | 554.0 | 554.4 | 554.2 | 554.0 | 553.8 | 553.6 |
| 7.5°   | 545.6 | 546.6 | 547.4 | 547.8 | 547.7 | 547.5 | 547.4 | 547.3 |
| 10°    | 540.5 | 541.3 | 542.2 | 542.4 | 542.2 | 542.0 | 541.8 | 541.6 |
| 12.5°  | 534.2 | 535.1 | 536.0 | 536.3 | 536.0 | 535.7 | 535.5 | 535.2 |
| 15°    | 522.3 | 522.8 | 523.5 | 523.6 | 523.3 | 523.0 | 522.7 | 522.5 |
| 17.5°  | 508.6 | 509.0 | 509.3 | 509.4 | 509.3 | 509.1 | 508.9 | 508.7 |
| 20°    | 498.5 | 498.8 | 499.1 | 499.2 | 498.9 | 498.7 | 498.5 | 498.3 |
| 22.5°  | 487.9 | 488.4 | 489.0 | 489.1 | 488.7 | 488.3 | 488.0 | 487.7 |
| 25°    | 470.4 | 470.5 | 470.6 | 470.5 | 470.0 | 469.7 | 469.3 | 468.9 |
| 27.5°  | 450.8 | 450.6 | 450.3 | 450.0 | 449.5 | 449.0 | 448.5 | 448.0 |
| 30°    | 437.3 | 437.0 | 436.5 | 436.1 | 435.5 | 435.1 | 434.6 | 434.1 |
| 32.5°  | 423.6 | 423.1 | 422.6 | 422.2 | 421.7 | 421.1 | 420.7 | 420.2 |
| 35°    | 401.9 | 401.2 | 400.5 | 399.9 | 399.4 | 399.0 | 398.4 | 397.9 |
| 37.5°  | 379.2 | 378.4 | 377.7 | 377.0 | 376.4 | 375.7 | 375.0 | 374.4 |
| 40°    | 363.4 | 362.4 | 361.5 | 360.7 | 360.1 | 359.7 | 359.2 | 358.7 |
| 42.5°  | 348.1 | 346.9 | 345.8 | 345.1 | 344.7 | 344.4 | 344.0 | 343.7 |
| 45°    | 324.4 | 323.3 | 322.3 | 321.5 | 321.2 | 320.9 | 320.7 | 320.4 |
| 47.5°  | 301.4 | 300.2 | 299.0 | 298.0 | 297.3 | 296.5 | 295.8 | 295.0 |
| 50°    | 285.4 | 284.1 | 282.7 | 281.6 | 281.1 | 280.5 | 279.8 | 279.3 |
| 52.5°  | 269.0 | 267.8 | 266.6 | 265.5 | 264.8 | 264.0 | 263.3 | 262.5 |
| 55°    | 244.8 | 243.6 | 242.4 | 241.5 | 240.9 | 240.3 | 239.7 | 239.1 |
| 57.5°  | 220.6 | 219.4 | 218.3 | 217.4 | 216.9 | 216.3 | 215.7 | 215.1 |
| 60°    | 203.9 | 203.0 | 202.1 | 201.4 | 201.0 | 200.4 | 199.9 | 199.4 |
| 62.5°  | 187.7 | 186.8 | 186.0 | 185.3 | 184.8 | 184.4 | 183.9 | 183.3 |
| 65°    | 164.0 | 163.0 | 162.0 | 161.3 | 160.8 | 160.2 | 159.8 | 159.3 |
| 67.5°  | 139.6 | 138.6 | 137.7 | 137.1 | 137.0 | 136.9 | 136.8 | 136.6 |
| 70°    | 124.2 | 123.5 | 122.6 | 122.1 | 121.8 | 121.5 | 121.2 | 120.9 |
| 72.5°  | 108.9 | 108.2 | 107.5 | 107.1 | 106.8 | 106.5 | 106.2 | 105.9 |
| 75°    | 86.6  | 86.2  | 85.9  | 85.6  | 85.5  | 85.4  | 85.3  | 85.2  |
| 77.5°  | 65.6  | 65.5  | 65.4  | 65.2  | 64.9  | 64.7  | 64.4  | 64.2  |
| 80°    | 52.2  | 52.0  | 51.8  | 51.7  | 51.6  | 51.5  | 51.4  | 51.3  |
| 82.5°  | 40.2  | 40.2  | 40.1  | 40.0  | 39.9  | 39.7  | 39.6  | 39.5  |
| 85°    | 23.2  | 23.2  | 23.2  | 23.2  | 23.1  | 23.0  | 22.8  | 22.7  |
| 87.5°  | 12.2  | 12.4  | 12.6  | 12.7  | 12.8  | 12.8  | 12.9  | 13.0  |
| 90°    | 18.2  | 19.1  | 20.2  | 20.8  | 21.1  | 21.5  | 21.8  | 22.1  |
| 92.5°  | 17.6  | 18.6  | 19.5  | 20.1  | 20.2  | 20.2  | 20.3  | 20.4  |
| 95°    | 18.2  | 19.1  | 20.2  | 20.7  | 20.9  | 21.0  | 21.2  | 21.4  |
| 97.5°  | 19.7  | 19.8  | 19.9  | 20.0  | 20.2  | 20.3  | 20.5  | 20.6  |
| 100°   | 26.9  | 24.0  | 21.3  | 20.0  | 20.2  | 20.3  | 20.5  | 20.6  |
| 102.5° | 96.1  | 66.2  | 36.1  | 21.1  | 21.1  | 21.1  | 21.2  | 21.2  |
| 105°   | 232.9 | 234.3 | 235.8 | 233.7 | 227.7 | 221.8 | 215.9 | 210.0 |
| 107.5° | 288.1 | 288.8 | 289.5 | 290.2 | 290.9 | 291.4 | 292.1 | 292.8 |
| 110°   | 325.6 | 326.0 | 326.3 | 326.7 | 327.3 | 327.7 | 328.2 | 328.7 |





TEST NUMBER: P332514-830

CATALOG NUMBER: SA4XXDIP-C350D810U830-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

|        | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 362.0 | 361.9 | 361.8 | 362.1 | 362.8 | 363.4 | 364.0 | 364.7 |
| 115°   | 416.3 | 416.6 | 417.0 | 417.2 | 417.2 | 417.2 | 417.2 | 417.2 |
| 117.5° | 470.9 | 470.9 | 470.8 | 470.7 | 470.7 | 470.6 | 470.5 | 470.5 |
| 120°   | 504.7 | 505.1 | 505.4 | 505.4 | 505.1 | 504.7 | 504.4 | 504.1 |
| 122.5° | 538.1 | 538.3 | 538.5 | 538.4 | 538.1 | 537.7 | 537.4 | 537.1 |
| 125°   | 584.7 | 585.1 | 585.6 | 586.0 | 586.2 | 586.3 | 586.4 | 586.6 |
| 127.5° | 630.9 | 630.8 | 630.7 | 630.7 | 630.5 | 630.4 | 630.3 | 630.1 |
| 130°   | 659.2 | 659.3 | 659.5 | 659.6 | 659.6 | 659.6 | 659.6 | 659.6 |
| 132.5° | 686.9 | 687.0 | 687.2 | 687.2 | 687.1 | 686.9 | 686.8 | 686.7 |
| 135°   | 725.1 | 725.4 | 725.8 | 726.0 | 726.4 | 726.7 | 727.1 | 727.4 |
| 137.5° | 761.7 | 762.0 | 762.4 | 762.5 | 762.4 | 762.3 | 762.2 | 762.1 |
| 140°   | 784.4 | 784.9 | 785.3 | 785.7 | 785.9 | 786.0 | 786.2 | 786.4 |
| 142.5° | 805.3 | 805.7 | 806.1 | 806.3 | 806.3 | 806.3 | 806.3 | 806.3 |
| 145°   | 835.3 | 835.5 | 835.7 | 835.8 | 836.2 | 836.5 | 836.9 | 837.2 |
| 147.5° | 861.7 | 861.8 | 861.9 | 862.0 | 862.2 | 862.3 | 862.5 | 862.7 |
| 150°   | 878.4 | 878.4 | 878.4 | 878.5 | 878.7 | 878.8 | 879.0 | 879.2 |
| 152.5° | 893.2 | 893.4 | 893.6 | 893.7 | 893.6 | 893.5 | 893.4 | 893.3 |
| 155°   | 912.9 | 913.6 | 914.3 | 914.4 | 913.8 | 913.3 | 912.9 | 912.4 |
| 157.5° | 930.0 | 930.9 | 931.7 | 931.7 | 930.9 | 930.0 | 929.2 | 928.3 |
| 160°   | 940.8 | 941.9 | 942.8 | 942.8 | 941.9 | 940.8 | 939.9 | 938.9 |
| 162.5° | 949.7 | 950.6 | 951.7 | 951.6 | 950.5 | 949.3 | 948.3 | 947.2 |
| 165°   | 962.1 | 963.5 | 964.8 | 964.7 | 963.2 | 961.8 | 960.3 | 958.8 |
| 167.5° | 971.3 | 972.7 | 974.1 | 974.0 | 972.4 | 970.7 | 969.1 | 967.5 |
| 170°   | 976.9 | 978.2 | 979.5 | 979.3 | 977.7 | 976.1 | 974.4 | 972.8 |
| 172.5° | 980.4 | 981.8 | 983.1 | 982.8 | 981.1 | 979.3 | 977.5 | 975.7 |
| 175°   | 984.6 | 986.1 | 987.5 | 987.3 | 985.3 | 983.4 | 981.4 | 979.4 |
| 177.5° | 986.3 | 987.3 | 988.4 | 988.1 | 986.5 | 985.0 | 983.4 | 981.8 |
| 180°   | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 | 985.3 |

(END OF REPORT)