

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: P1001109

Luminaire Tested: SA4XXDIP-B350D1035UB27-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1001109  
REPORT IS A COMBINATION OF REPORTS P995725 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B350D1035UB27-4F0-XX-W2A-F  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

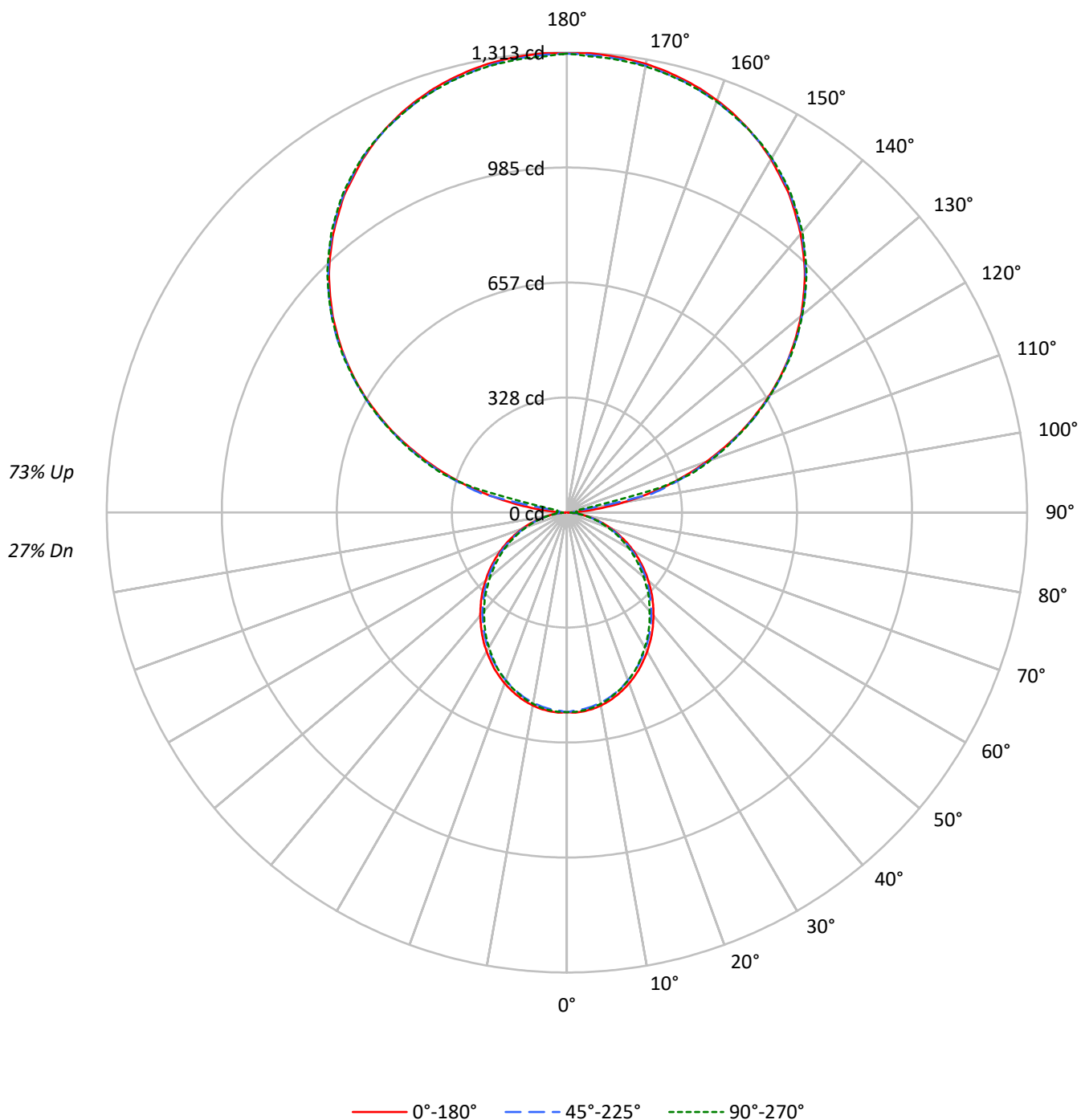
Lumens per Lamp: N/A  
Luminaire Lumens: 5519.0 lumens  
Efficiency: N/A  
Efficacy: 133.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 41.5  
Input Voltage (V):  
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

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### Luminous Intensity Polar Plot



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

|     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF  | 20  |     |     |     | 20 |    |    |    | 20 |    |    |    | 20 |    |    |    | 20 |
| RC  | 80  |     |     |     | 70 |    |    |    | 50 |    |    |    | 30 |    |    |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 70 | 70 | 70 | 52 | 52 | 52 | 35 | 35 | 35 |
| 1   | 93  | 88  | 85  | 81  | 82 | 79 | 76 | 73 | 61 | 59 | 57 | 45 | 44 | 43 | 30 | 30 | 29 |
| 2   | 84  | 77  | 71  | 66  | 75 | 69 | 64 | 60 | 54 | 50 | 47 | 40 | 38 | 36 | 27 | 26 | 24 |
| 3   | 77  | 68  | 61  | 55  | 68 | 61 | 55 | 50 | 47 | 43 | 40 | 35 | 32 | 30 | 24 | 22 | 21 |
| 4   | 70  | 60  | 52  | 46  | 62 | 54 | 47 | 42 | 42 | 37 | 34 | 31 | 28 | 26 | 21 | 19 | 18 |
| 5   | 64  | 53  | 45  | 40  | 57 | 48 | 41 | 36 | 37 | 33 | 29 | 28 | 25 | 22 | 19 | 17 | 16 |
| 6   | 59  | 47  | 40  | 34  | 52 | 43 | 36 | 31 | 34 | 29 | 25 | 25 | 22 | 19 | 17 | 15 | 14 |
| 7   | 54  | 43  | 35  | 30  | 48 | 38 | 32 | 27 | 30 | 26 | 22 | 23 | 20 | 17 | 16 | 14 | 12 |
| 8   | 50  | 39  | 31  | 26  | 45 | 35 | 28 | 24 | 28 | 23 | 19 | 21 | 18 | 15 | 14 | 12 | 11 |
| 9   | 47  | 35  | 28  | 23  | 42 | 32 | 25 | 21 | 25 | 21 | 17 | 19 | 16 | 13 | 13 | 11 | 10 |
| 10  | 44  | 32  | 25  | 20  | 39 | 29 | 23 | 19 | 23 | 19 | 15 | 18 | 14 | 12 | 12 | 10 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4648 | 4648 | 4648 |
| 5°  | 4652 | 4514 | 4520 |
| 10° | 4612 | 4389 | 4359 |
| 15° | 4546 | 4240 | 4176 |
| 20° | 4461 | 4079 | 3988 |
| 25° | 4367 | 3909 | 3784 |
| 30° | 4252 | 3724 | 3561 |
| 35° | 4134 | 3536 | 3346 |
| 40° | 4010 | 3333 | 3116 |
| 45° | 3879 | 3129 | 2902 |
| 50° | 3736 | 2932 | 2665 |
| 55° | 3580 | 2702 | 2429 |
| 60° | 3420 | 2450 | 2184 |
| 65° | 3238 | 2189 | 1907 |
| 70° | 3025 | 1876 | 1611 |
| 75° | 2712 | 1511 | 1289 |
| 80° | 2311 | 1093 | 907  |
| 85° | 1797 | 607  | 488  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3879 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.7   | 1.0       |
| 10°-20°   | 151.4  | 2.7       |
| 20°-30°   | 222.8  | 4.0       |
| 30°-40°   | 258.9  | 4.7       |
| 40°-50°   | 258.9  | 4.7       |
| 50°-60°   | 226.5  | 4.1       |
| 60°-70°   | 168.1  | 3.0       |
| 70°-80°   | 95.4   | 1.7       |
| 80°-90°   | 30.0   | 0.5       |
| 90°-100°  | 43.5   | 0.8       |
| 100°-110° | 286.4  | 5.2       |
| 110°-120° | 546.8  | 9.9       |
| 120°-130° | 694.2  | 12.6      |
| 130°-140° | 742.6  | 13.5      |
| 140°-150° | 694.4  | 12.6      |
| 150°-160° | 560.0  | 10.1      |
| 160°-170° | 361.1  | 6.5       |
| 170°-180° | 124.5  | 2.3       |
| 0°-30°    | 427.8  | 7.8       |
| 0°-40°    | 686.8  | 12.4      |
| 0°-60°    | 1172.2 | 21.2      |
| 0°-90°    | 1465.7 | 26.6      |
| 90°-120°  | 876.6  | 15.9      |
| 90°-150°  | 3007.8 | 54.5      |
| 90°-180°  | 4053.0 | 73.4      |
| 0°-180°   | 5519.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 570  | 570   | 570  | 570   | 570  |      |
| 5°   | 570  | 568   | 563  | 568   | 567  | 54   |
| 15°  | 542  | 540   | 534  | 536   | 535  | 153  |
| 25°  | 491  | 488   | 481  | 482   | 480  | 226  |
| 35°  | 422  | 419   | 413  | 410   | 407  | 264  |
| 45°  | 345  | 342   | 334  | 329   | 328  | 266  |
| 55°  | 261  | 259   | 253  | 248   | 245  | 234  |
| 65°  | 177  | 174   | 170  | 165   | 163  | 175  |
| 75°  | 94   | 92    | 90   | 88    | 87   | 100  |
| 85°  | 25   | 25    | 24   | 24    | 23   | 27   |
| 90°  | 3    | 14    | 22   | 27    | 29   | 4    |
| 95°  | 54   | 21    | 22   | 27    | 28   | 66   |
| 105° | 295  | 301   | 306  | 314   | 279  | 309  |
| 115° | 551  | 554   | 553  | 554   | 554  | 542  |
| 125° | 774  | 778   | 776  | 779   | 780  | 691  |
| 135° | 960  | 959   | 963  | 965   | 967  | 740  |
| 145° | 1107 | 1110  | 1110 | 1111  | 1113 | 692  |
| 155° | 1214 | 1215  | 1212 | 1216  | 1213 | 560  |
| 165° | 1280 | 1276  | 1276 | 1283  | 1275 | 362  |
| 175° | 1310 | 1304  | 1305 | 1314  | 1302 | 125  |
| 180° | 1310 | 1310  | 1310 | 1310  | 1310 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 570.0 | 570.0 | 570.0 | 570.0 | 570.0 |
| 2.5°   | 571.8 | 570.5 | 565.4 | 570.0 | 569.5 |
| 5°     | 569.5 | 567.7 | 562.7 | 567.7 | 566.8 |
| 7.5°   | 565.4 | 563.6 | 558.1 | 562.2 | 561.8 |
| 10°    | 559.5 | 557.7 | 551.7 | 555.4 | 554.5 |
| 12.5°  | 551.7 | 549.9 | 543.5 | 547.6 | 546.2 |
| 15°    | 542.1 | 540.3 | 533.5 | 536.2 | 534.8 |
| 17.5°  | 531.2 | 528.9 | 522.5 | 524.3 | 523.4 |
| 20°    | 518.8 | 516.6 | 509.7 | 511.1 | 510.2 |
| 22.5°  | 505.6 | 502.4 | 495.5 | 498.3 | 496.5 |
| 25°    | 491.0 | 487.8 | 481.4 | 481.8 | 480.0 |
| 27.5°  | 474.5 | 471.3 | 465.4 | 464.5 | 462.2 |
| 30°    | 458.1 | 454.4 | 448.5 | 446.7 | 444.4 |
| 32.5°  | 440.7 | 437.5 | 431.1 | 428.9 | 426.6 |
| 35°    | 422.5 | 419.3 | 412.9 | 409.7 | 407.4 |
| 37.5°  | 403.3 | 400.5 | 393.7 | 390.5 | 387.3 |
| 40°    | 384.6 | 380.9 | 374.1 | 369.5 | 367.2 |
| 42.5°  | 364.5 | 362.6 | 354.9 | 349.4 | 348.0 |
| 45°    | 344.8 | 341.6 | 334.3 | 329.3 | 327.9 |
| 47.5°  | 324.3 | 322.0 | 315.1 | 309.7 | 306.0 |
| 50°    | 303.3 | 301.4 | 295.0 | 288.7 | 285.9 |
| 52.5°  | 282.7 | 280.4 | 273.6 | 268.1 | 264.4 |
| 55°    | 260.8 | 259.4 | 253.0 | 247.5 | 244.8 |
| 57.5°  | 240.2 | 238.9 | 232.5 | 227.0 | 224.3 |
| 60°    | 218.8 | 216.5 | 210.6 | 206.4 | 204.2 |
| 62.5°  | 197.8 | 195.9 | 189.5 | 185.9 | 183.6 |
| 65°    | 176.8 | 174.5 | 169.9 | 165.3 | 163.1 |
| 67.5°  | 155.3 | 153.5 | 148.9 | 144.3 | 143.9 |
| 70°    | 135.6 | 132.5 | 128.8 | 125.1 | 123.8 |
| 72.5°  | 114.6 | 111.4 | 108.7 | 106.0 | 104.6 |
| 75°    | 94.1  | 91.8  | 89.5  | 87.7  | 87.2  |
| 77.5°  | 74.0  | 73.1  | 70.8  | 70.3  | 69.0  |
| 80°    | 56.2  | 54.8  | 53.9  | 53.0  | 52.5  |
| 82.5°  | 38.8  | 38.4  | 38.4  | 37.9  | 37.5  |
| 85°    | 24.7  | 24.7  | 23.7  | 23.7  | 23.3  |
| 87.5°  | 11.9  | 11.4  | 11.0  | 11.0  | 11.0  |
| 90°    | 2.9   | 13.7  | 21.6  | 27.4  | 29.4  |
| 92.5°  | 14.7  | 12.7  | 20.6  | 26.5  | 26.5  |
| 95°    | 53.9  | 20.6  | 21.6  | 27.4  | 28.4  |
| 97.5°  | 102.9 | 124.4 | 21.6  | 26.5  | 27.4  |
| 100°   | 160.7 | 178.3 | 43.1  | 26.5  | 27.4  |
| 102.5° | 225.3 | 237.1 | 248.9 | 28.4  | 28.4  |
| 105°   | 294.9 | 300.8 | 305.7 | 314.5 | 279.2 |
| 107.5° | 358.6 | 361.5 | 368.4 | 373.3 | 377.2 |
| 110°   | 423.2 | 426.2 | 432.1 | 434.0 | 437.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 485.9  | 491.8  | 493.8  | 492.8  | 496.7  |
| 115°   | 550.6  | 553.5  | 552.6  | 554.5  | 554.5  |
| 117.5° | 608.4  | 612.3  | 615.3  | 614.3  | 614.3  |
| 120°   | 667.2  | 671.1  | 670.1  | 672.1  | 670.1  |
| 122.5° | 722.1  | 724.0  | 726.0  | 727.0  | 725.0  |
| 125°   | 774.0  | 777.9  | 775.9  | 778.9  | 779.9  |
| 127.5° | 824.0  | 824.9  | 829.8  | 828.9  | 827.9  |
| 130°   | 872.0  | 872.9  | 875.9  | 876.9  | 876.9  |
| 132.5° | 916.0  | 918.0  | 921.9  | 922.9  | 921.9  |
| 135°   | 960.1  | 959.2  | 963.1  | 965.0  | 967.0  |
| 137.5° | 999.3  | 999.3  | 1004.2 | 1006.2 | 1005.2 |
| 140°   | 1037.5 | 1039.5 | 1041.5 | 1044.4 | 1045.4 |
| 142.5° | 1071.8 | 1075.7 | 1076.7 | 1078.7 | 1078.7 |
| 145°   | 1107.1 | 1110.0 | 1110.0 | 1111.0 | 1113.0 |
| 147.5° | 1134.5 | 1140.4 | 1139.4 | 1140.4 | 1141.4 |
| 150°   | 1164.9 | 1168.8 | 1167.8 | 1167.8 | 1168.8 |
| 152.5° | 1190.4 | 1193.3 | 1191.4 | 1193.3 | 1192.3 |
| 155°   | 1213.9 | 1214.9 | 1211.9 | 1215.8 | 1212.9 |
| 157.5° | 1234.5 | 1234.5 | 1230.5 | 1235.4 | 1230.5 |
| 160°   | 1252.1 | 1249.2 | 1248.2 | 1254.1 | 1248.2 |
| 162.5° | 1267.8 | 1263.9 | 1262.9 | 1268.8 | 1261.9 |
| 165°   | 1280.5 | 1275.6 | 1275.6 | 1283.4 | 1274.6 |
| 167.5° | 1291.3 | 1286.4 | 1285.4 | 1294.2 | 1284.4 |
| 170°   | 1300.1 | 1294.2 | 1295.2 | 1303.0 | 1293.2 |
| 172.5° | 1306.0 | 1300.1 | 1301.1 | 1308.9 | 1298.1 |
| 175°   | 1309.9 | 1304.0 | 1305.0 | 1313.8 | 1302.1 |
| 177.5° | 1312.8 | 1306.0 | 1307.9 | 1315.8 | 1304.0 |
| 180°   | 1309.9 | 1309.9 | 1309.9 | 1309.9 | 1309.9 |

(END OF REPORT)