

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: P1001149

Luminaire Tested: SA4XXDIP-B350D1035UB40-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1001149  
REPORT IS A COMBINATION OF REPORTS P995765 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B350D1035UB40-4F0-XX-W2A-D1  
Description: Define 4 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

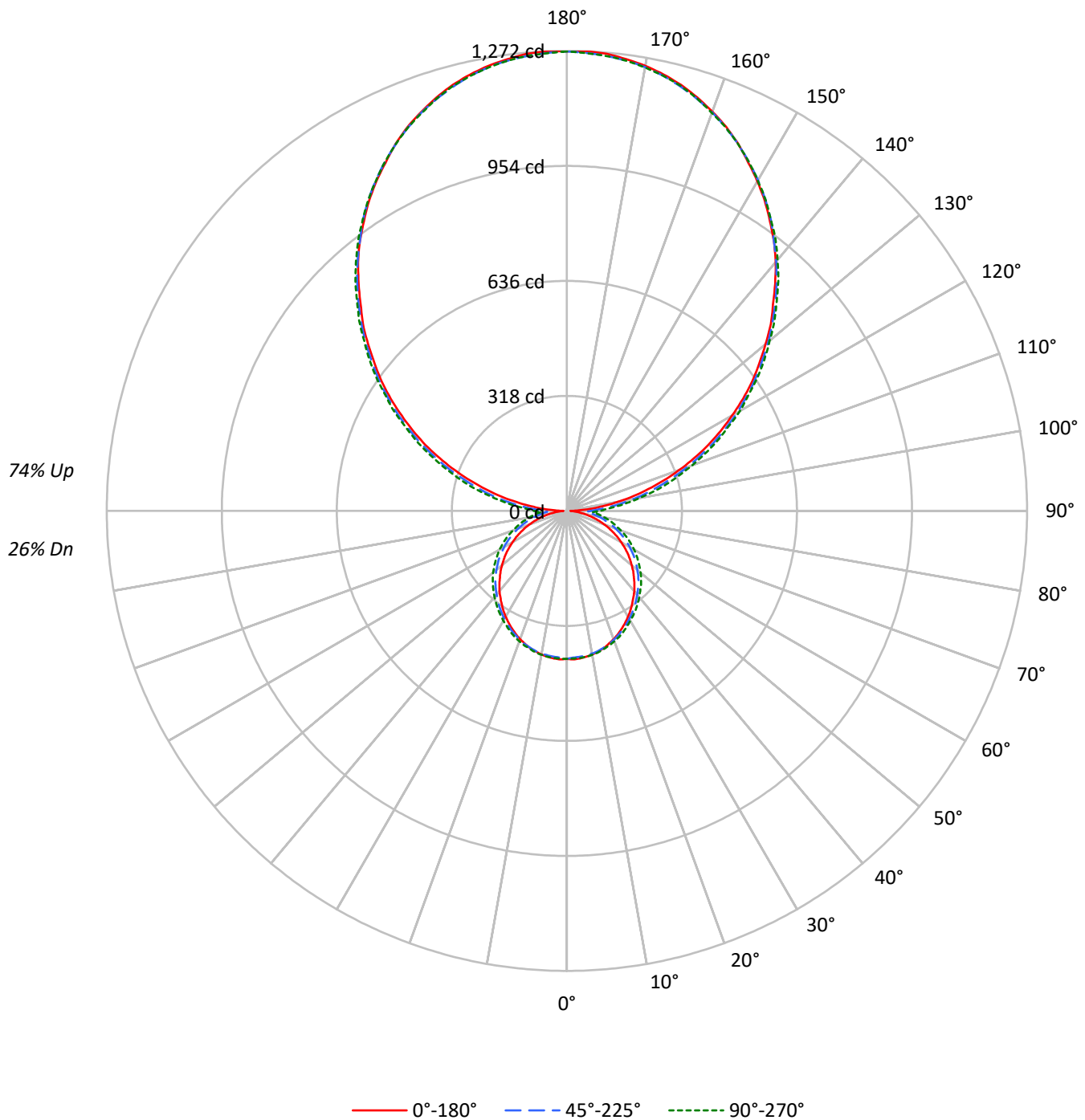
Lumens per Lamp: N/A  
Luminaire Lumens: 4923.0 lumens  
Efficiency: N/A  
Efficacy: 118.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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   | 101 | 101 | 101 | 101 | 91 | 91 | 91 | 91 | 70 | 70 | 70 | 51 | 51 | 51 | 34 | 34 | 34 |
| 1   | 92  | 88  | 84  | 80  | 82 | 78 | 75 | 72 | 61 | 58 | 56 | 44 | 43 | 42 | 29 | 29 | 28 |
| 2   | 83  | 76  | 70  | 65  | 74 | 68 | 63 | 58 | 53 | 49 | 46 | 39 | 36 | 34 | 26 | 24 | 23 |
| 3   | 76  | 67  | 59  | 54  | 67 | 60 | 53 | 48 | 46 | 42 | 38 | 34 | 31 | 29 | 22 | 21 | 19 |
| 4   | 69  | 59  | 51  | 45  | 61 | 52 | 46 | 41 | 41 | 36 | 32 | 30 | 27 | 24 | 20 | 18 | 16 |
| 5   | 63  | 52  | 44  | 38  | 56 | 47 | 40 | 35 | 36 | 31 | 28 | 27 | 23 | 21 | 18 | 16 | 14 |
| 6   | 58  | 46  | 39  | 33  | 52 | 42 | 35 | 30 | 33 | 28 | 24 | 24 | 21 | 18 | 16 | 14 | 12 |
| 7   | 54  | 42  | 34  | 29  | 48 | 37 | 31 | 26 | 29 | 24 | 21 | 22 | 18 | 16 | 15 | 13 | 11 |
| 8   | 50  | 38  | 30  | 25  | 44 | 34 | 27 | 23 | 27 | 22 | 18 | 20 | 16 | 14 | 13 | 11 | 10 |
| 9   | 46  | 34  | 27  | 22  | 41 | 31 | 24 | 20 | 24 | 20 | 16 | 18 | 15 | 12 | 12 | 10 | 9  |
| 10  | 43  | 31  | 24  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 14 | 17 | 13 | 11 | 11 | 9  | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3337 | 3337 | 3337 |
| 5°  | 3346 | 3249 | 3255 |
| 10° | 3324 | 3186 | 3176 |
| 15° | 3293 | 3114 | 3087 |
| 20° | 3246 | 3036 | 3001 |
| 25° | 3195 | 2950 | 2907 |
| 30° | 3138 | 2865 | 2813 |
| 35° | 3075 | 2778 | 2728 |
| 40° | 3024 | 2695 | 2640 |
| 45° | 2949 | 2616 | 2563 |
| 50° | 2884 | 2527 | 2481 |
| 55° | 2818 | 2441 | 2386 |
| 60° | 2715 | 2335 | 2298 |
| 65° | 2600 | 2220 | 2192 |
| 70° | 2463 | 2088 | 2069 |
| 75° | 2271 | 1942 | 1952 |
| 80° | 2052 | 1793 | 1828 |
| 85° | 1768 | 1643 | 1729 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 90°

Luminance: 3327 cd/sqm

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CATALOG NUMBER: SA4XXDIP-B350D1035UB40-4F0-XX-W2A-D1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 38.8   | 0.8       |
| 10°-20°   | 111.1  | 2.3       |
| 20°-30°   | 168.0  | 3.4       |
| 30°-40°   | 203.2  | 4.1       |
| 40°-50°   | 214.8  | 4.4       |
| 50°-60°   | 202.2  | 4.1       |
| 60°-70°   | 167.7  | 3.4       |
| 70°-80°   | 117.7  | 2.4       |
| 80°-90°   | 69.1   | 1.4       |
| 90°-100°  | 122.3  | 2.5       |
| 100°-110° | 277.3  | 5.6       |
| 110°-120° | 441.0  | 9.0       |
| 120°-130° | 566.8  | 11.5      |
| 130°-140° | 629.0  | 12.8      |
| 140°-150° | 614.5  | 12.5      |
| 150°-160° | 516.0  | 10.5      |
| 160°-170° | 343.3  | 7.0       |
| 170°-180° | 120.2  | 2.4       |
| 0°-30°    | 317.8  | 6.5       |
| 0°-40°    | 521.0  | 10.6      |
| 0°-60°    | 938.0  | 19.1      |
| 0°-90°    | 1292.5 | 26.3      |
| 90°-120°  | 840.7  | 17.1      |
| 90°-150°  | 2650.9 | 53.8      |
| 90°-180°  | 3630.0 | 73.7      |
| 0°-180°   | 4923.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 409  | 409   | 409  | 409   | 409  |      |
| 5°   | 410  | 408   | 405  | 409   | 408  | 39   |
| 15°  | 393  | 393   | 392  | 396   | 395  | 111  |
| 25°  | 359  | 362   | 363  | 368   | 369  | 165  |
| 35°  | 314  | 320   | 324  | 331   | 332  | 197  |
| 45°  | 262  | 271   | 280  | 287   | 290  | 203  |
| 55°  | 205  | 215   | 229  | 238   | 240  | 183  |
| 65°  | 142  | 157   | 172  | 184   | 187  | 141  |
| 75°  | 79   | 96    | 115  | 128   | 132  | 84   |
| 85°  | 24   | 44    | 64   | 78    | 82   | 25   |
| 90°  | 10   | 40    | 67   | 86    | 92   | 9    |
| 95°  | 65   | 89    | 115  | 130   | 134  | 69   |
| 105° | 233  | 243   | 264  | 278   | 285  | 247  |
| 115° | 431  | 435   | 448  | 457   | 459  | 425  |
| 125° | 626  | 625   | 636  | 642   | 643  | 558  |
| 135° | 806  | 812   | 815  | 820   | 820  | 623  |
| 145° | 978  | 982   | 983  | 984   | 983  | 612  |
| 155° | 1120 | 1120  | 1119 | 1123  | 1119 | 516  |
| 165° | 1219 | 1216  | 1214 | 1220  | 1216 | 344  |
| 175° | 1269 | 1264  | 1263 | 1270  | 1263 | 120  |
| 180° | 1270 | 1270  | 1270 | 1270  | 1270 |      |

TEST NUMBER: P1001149

CATALOG NUMBER: SA4XXDIP-B350D1035UB40-4F0-XX-W2A-D1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 409.2 | 409.2 | 409.2 | 409.2 | 409.2 |
| 2.5°   | 411.0 | 409.6 | 406.0 | 409.2 | 408.7 |
| 5°     | 409.6 | 408.2 | 405.0 | 408.7 | 408.2 |
| 7.5°   | 406.9 | 406.0 | 403.2 | 407.3 | 406.9 |
| 10°    | 403.2 | 402.7 | 400.5 | 404.6 | 404.1 |
| 12.5°  | 398.2 | 398.2 | 396.8 | 400.5 | 400.5 |
| 15°    | 392.7 | 393.1 | 391.8 | 395.9 | 395.4 |
| 17.5°  | 385.3 | 386.7 | 386.3 | 390.4 | 389.9 |
| 20°    | 377.5 | 378.9 | 379.4 | 384.0 | 384.0 |
| 22.5°  | 368.8 | 370.7 | 371.6 | 376.2 | 377.1 |
| 25°    | 359.2 | 362.0 | 363.3 | 368.4 | 368.8 |
| 27.5°  | 348.7 | 352.8 | 354.6 | 359.2 | 359.7 |
| 30°    | 338.1 | 341.8 | 345.0 | 350.1 | 351.0 |
| 32.5°  | 326.7 | 331.3 | 334.9 | 340.9 | 341.8 |
| 35°    | 314.3 | 319.8 | 324.4 | 330.8 | 332.2 |
| 37.5°  | 301.9 | 308.4 | 313.9 | 320.3 | 321.6 |
| 40°    | 290.0 | 296.0 | 302.4 | 309.3 | 311.1 |
| 42.5°  | 276.3 | 283.2 | 290.9 | 298.7 | 300.1 |
| 45°    | 262.1 | 270.8 | 279.5 | 287.3 | 289.6 |
| 47.5°  | 248.8 | 257.5 | 267.6 | 275.4 | 278.1 |
| 50°    | 234.1 | 244.2 | 254.3 | 263.5 | 266.2 |
| 52.5°  | 219.5 | 229.6 | 241.5 | 250.6 | 253.4 |
| 55°    | 205.3 | 214.9 | 228.6 | 237.8 | 240.5 |
| 57.5°  | 189.2 | 201.1 | 214.4 | 225.4 | 227.7 |
| 60°    | 173.7 | 185.6 | 200.7 | 211.2 | 214.9 |
| 62.5°  | 158.5 | 171.8 | 186.9 | 197.5 | 201.1 |
| 65°    | 142.0 | 156.7 | 172.3 | 183.7 | 187.4 |
| 67.5°  | 126.5 | 142.0 | 158.5 | 170.0 | 173.7 |
| 70°    | 110.4 | 126.0 | 143.4 | 155.8 | 159.0 |
| 72.5°  | 94.8  | 110.9 | 129.7 | 141.6 | 145.2 |
| 75°    | 78.8  | 95.8  | 115.0 | 127.8 | 132.0 |
| 77.5°  | 63.7  | 81.6  | 101.7 | 114.5 | 119.1 |
| 80°    | 49.9  | 68.3  | 88.4  | 102.2 | 105.8 |
| 82.5°  | 36.2  | 55.4  | 75.6  | 89.8  | 93.9  |
| 85°    | 24.3  | 43.5  | 64.1  | 77.9  | 82.5  |
| 87.5°  | 15.1  | 33.9  | 54.1  | 67.4  | 71.5  |
| 90°    | 10.2  | 39.5  | 67.0  | 86.1  | 91.8  |
| 92.5°  | 32.4  | 61.2  | 85.8  | 101.6 | 106.3 |
| 95°    | 65.0  | 88.9  | 114.6 | 129.8 | 134.0 |
| 97.5°  | 99.8  | 121.0 | 147.7 | 163.5 | 167.6 |
| 100°   | 142.6 | 158.5 | 185.1 | 199.5 | 202.7 |
| 102.5° | 187.8 | 198.9 | 224.1 | 239.0 | 243.6 |
| 105°   | 233.1 | 243.2 | 264.1 | 278.5 | 285.2 |
| 107.5° | 281.2 | 290.0 | 307.0 | 322.4 | 324.6 |
| 110°   | 329.9 | 338.3 | 353.3 | 362.0 | 368.5 |

TEST NUMBER: P1001149

CATALOG NUMBER: SA4XXDIP-B350D1035UB40-4F0-XX-W2A-D1

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 380.5  | 386.0  | 399.2  | 409.3  | 413.0  |
| 115°   | 431.1  | 435.3  | 448.0  | 457.1  | 459.3  |
| 117.5° | 479.3  | 482.1  | 494.8  | 501.5  | 502.2  |
| 120°   | 527.0  | 532.4  | 542.7  | 546.9  | 552.6  |
| 122.5° | 577.1  | 578.1  | 589.5  | 595.7  | 594.0  |
| 125°   | 625.8  | 625.4  | 635.8  | 642.5  | 643.4  |
| 127.5° | 670.0  | 672.5  | 679.7  | 686.0  | 688.2  |
| 130°   | 716.8  | 719.2  | 726.5  | 732.8  | 731.6  |
| 132.5° | 764.9  | 766.4  | 770.9  | 776.7  | 778.5  |
| 135°   | 805.7  | 811.6  | 814.8  | 820.2  | 820.0  |
| 137.5° | 851.9  | 854.4  | 858.2  | 862.1  | 865.4  |
| 140°   | 898.0  | 899.6  | 900.0  | 905.0  | 906.3  |
| 142.5° | 939.9  | 941.9  | 940.4  | 945.4  | 947.3  |
| 145°   | 978.2  | 981.6  | 982.6  | 984.3  | 983.3  |
| 147.5° | 1017.5 | 1021.9 | 1021.0 | 1020.5 | 1021.3 |
| 150°   | 1052.9 | 1056.3 | 1056.3 | 1056.3 | 1055.3 |
| 152.5° | 1085.8 | 1087.8 | 1088.8 | 1091.7 | 1088.8 |
| 155°   | 1120.2 | 1120.2 | 1119.2 | 1123.1 | 1119.2 |
| 157.5° | 1149.7 | 1147.7 | 1147.7 | 1150.7 | 1147.7 |
| 160°   | 1175.2 | 1174.2 | 1173.3 | 1176.2 | 1171.3 |
| 162.5° | 1198.8 | 1195.9 | 1194.9 | 1200.8 | 1195.9 |
| 165°   | 1219.4 | 1216.5 | 1214.5 | 1220.4 | 1216.5 |
| 167.5° | 1236.1 | 1232.2 | 1232.2 | 1238.1 | 1232.2 |
| 170°   | 1249.9 | 1245.0 | 1246.0 | 1251.9 | 1245.0 |
| 172.5° | 1259.7 | 1255.8 | 1255.8 | 1262.7 | 1255.8 |
| 175°   | 1268.6 | 1263.7 | 1262.7 | 1269.6 | 1262.7 |
| 177.5° | 1272.5 | 1267.6 | 1267.6 | 1274.5 | 1266.6 |
| 180°   | 1270.5 | 1270.5 | 1270.5 | 1270.5 | 1270.5 |

(END OF REPORT)