

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: P1000922

Luminaire Tested: SA4XXDIP-B1195D1205UB50-4F0-XX-W2A-D4

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000922  
REPORT IS A COMBINATION OF REPORTS P995535 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B1195D1205UB50-4F0-XX-W2A-D4  
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

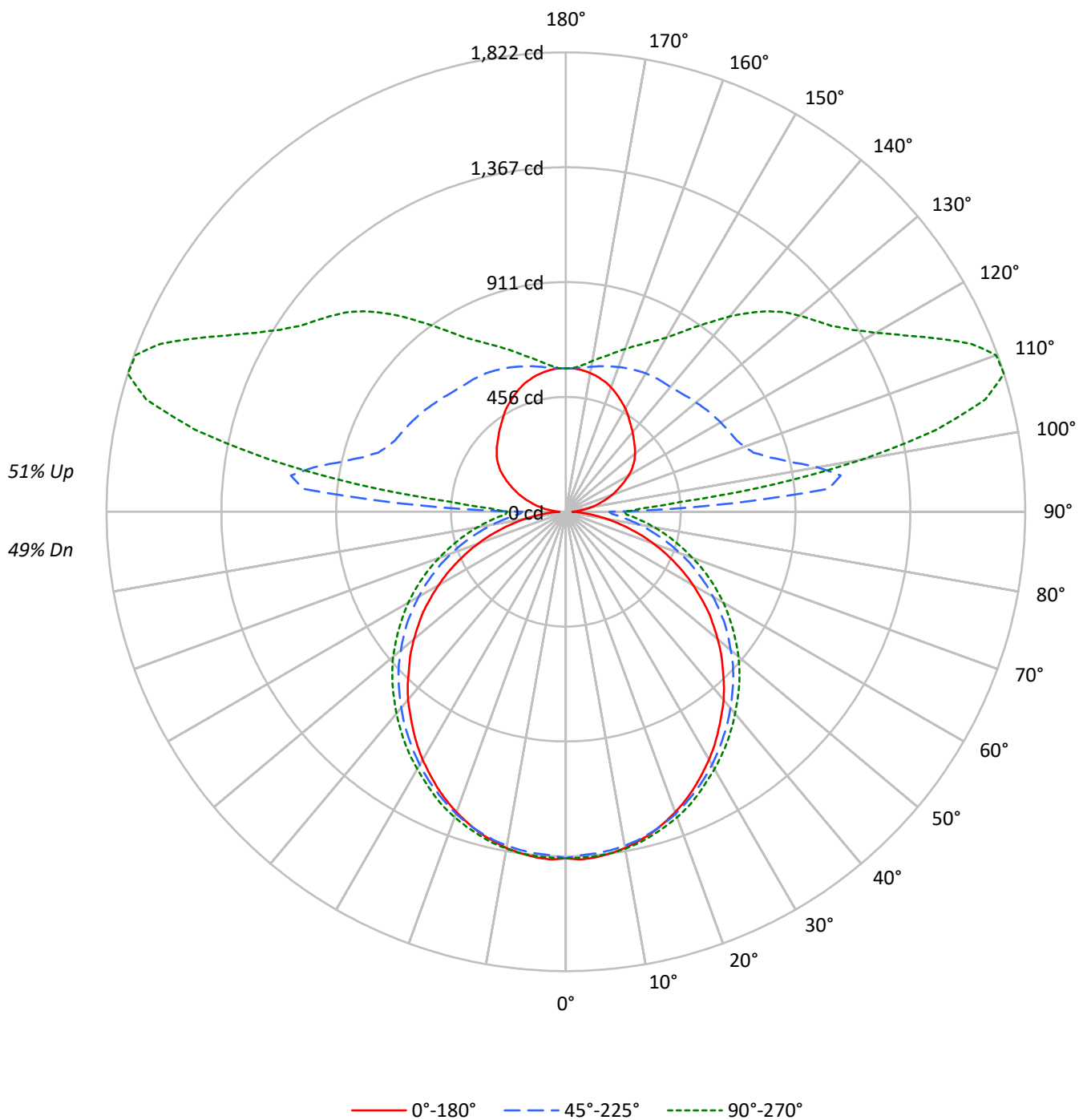
Lumens per Lamp: N/A  
Luminaire Lumens: 8835.2 lumens  
Efficiency: N/A  
Efficacy: 91.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 96.3  
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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 68 | 68 | 68 | 55 | 55 | 55 |
| 1   | 97  | 92  | 88  | 84  | 89 | 85 | 81 | 78 | 71 | 68 | 66 | 59 | 57 | 55 | 47 | 46 | 45 |
| 2   | 88  | 80  | 73  | 68  | 80 | 73 | 68 | 63 | 62 | 57 | 54 | 51 | 48 | 45 | 41 | 39 | 37 |
| 3   | 80  | 70  | 62  | 56  | 73 | 64 | 57 | 52 | 54 | 49 | 45 | 45 | 41 | 38 | 36 | 33 | 31 |
| 4   | 73  | 61  | 53  | 47  | 66 | 57 | 49 | 44 | 48 | 42 | 38 | 40 | 35 | 32 | 32 | 29 | 26 |
| 5   | 67  | 54  | 46  | 40  | 61 | 50 | 43 | 37 | 43 | 37 | 32 | 35 | 31 | 27 | 29 | 25 | 23 |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 38 | 32 | 38 | 32 | 28 | 32 | 27 | 24 | 26 | 23 | 20 |
| 7   | 57  | 44  | 36  | 30  | 52 | 41 | 33 | 28 | 35 | 29 | 25 | 29 | 24 | 21 | 24 | 20 | 18 |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 32 | 26 | 22 | 26 | 22 | 19 | 22 | 18 | 16 |
| 9   | 49  | 36  | 29  | 23  | 45 | 34 | 27 | 22 | 29 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 14 |
| 10  | 46  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 27 | 21 | 17 | 22 | 18 | 15 | 18 | 15 | 13 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11205 | 11205 | 11205 |
| 5°  | 11236 | 10913 | 10933 |
| 10° | 11163 | 10699 | 10668 |
| 15° | 11059 | 10457 | 10369 |
| 20° | 10904 | 10196 | 10078 |
| 25° | 10729 | 9908  | 9765  |
| 30° | 10541 | 9622  | 9446  |
| 35° | 10327 | 9330  | 9162  |
| 40° | 10156 | 9050  | 8867  |
| 45° | 9903  | 8787  | 8607  |
| 50° | 9686  | 8488  | 8332  |
| 55° | 9463  | 8201  | 8017  |
| 60° | 9117  | 7842  | 7719  |
| 65° | 8735  | 7456  | 7361  |
| 70° | 8272  | 7013  | 6947  |
| 75° | 7628  | 6522  | 6553  |
| 80° | 6897  | 6023  | 6141  |
| 85° | 5938  | 5520  | 5806  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9903 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 130.2  | 1.5       |
| 10°-20°   | 373.1  | 4.2       |
| 20°-30°   | 564.1  | 6.4       |
| 30°-40°   | 682.4  | 7.7       |
| 40°-50°   | 721.4  | 8.2       |
| 50°-60°   | 678.9  | 7.7       |
| 60°-70°   | 563.4  | 6.4       |
| 70°-80°   | 395.4  | 4.5       |
| 80°-90°   | 225.1  | 2.5       |
| 90°-100°  | 554.9  | 6.3       |
| 100°-110° | 957.0  | 10.8      |
| 110°-120° | 831.4  | 9.4       |
| 120°-130° | 680.1  | 7.7       |
| 130°-140° | 552.6  | 6.3       |
| 140°-150° | 412.9  | 4.7       |
| 150°-160° | 288.0  | 3.3       |
| 160°-170° | 169.4  | 1.9       |
| 170°-180° | 55.1   | 0.6       |
| 0°-30°    | 1067.3 | 12.1      |
| 0°-40°    | 1749.7 | 19.8      |
| 0°-60°    | 3150.1 | 35.7      |
| 0°-90°    | 4333.9 | 49.1      |
| 90°-120°  | 2343.2 | 26.5      |
| 90°-150°  | 3988.8 | 45.1      |
| 90°-180°  | 4501.0 | 50.9      |
| 0°-180°   | 8835.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1374 | 1374  | 1374 | 1374  | 1374 |      |
| 5°   | 1376 | 1371  | 1360 | 1373  | 1371 | 131  |
| 15°  | 1319 | 1320  | 1316 | 1330  | 1328 | 372  |
| 25°  | 1206 | 1216  | 1220 | 1237  | 1239 | 556  |
| 35°  | 1056 | 1074  | 1090 | 1111  | 1116 | 661  |
| 45°  | 880  | 909   | 939  | 965   | 972  | 680  |
| 55°  | 689  | 722   | 768  | 799   | 808  | 614  |
| 65°  | 477  | 526   | 579  | 617   | 629  | 473  |
| 75°  | 265  | 322   | 386  | 429   | 443  | 281  |
| 85°  | 82   | 146   | 215  | 262   | 277  | 85   |
| 90°  | 26   | 95    | 172  | 219   | 233  | 19   |
| 95°  | 57   | 187   | 1044 | 626   | 462  | 56   |
| 105° | 144  | 234   | 834  | 1717  | 1724 | 155  |
| 115° | 239  | 312   | 726  | 1361  | 1626 | 238  |
| 125° | 327  | 385   | 693  | 1140  | 1285 | 292  |
| 135° | 384  | 456   | 658  | 987   | 1124 | 297  |
| 145° | 440  | 502   | 641  | 809   | 894  | 277  |
| 155° | 499  | 539   | 623  | 706   | 736  | 230  |
| 165° | 544  | 561   | 597  | 633   | 642  | 154  |
| 175° | 567  | 568   | 573  | 581   | 578  | 54   |
| 180° | 568  | 568   | 568  | 568   | 568  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1374.1 | 1374.1 | 1374.1 | 1374.1 | 1374.1 |
| 2.5°   | 1380.3 | 1375.7 | 1363.4 | 1374.1 | 1372.6 |
| 5°     | 1375.7 | 1371.1 | 1360.3 | 1372.6 | 1371.1 |
| 7.5°   | 1366.4 | 1363.4 | 1354.1 | 1368.0 | 1366.4 |
| 10°    | 1354.1 | 1352.6 | 1344.9 | 1358.8 | 1357.2 |
| 12.5°  | 1337.2 | 1337.2 | 1332.6 | 1344.9 | 1344.9 |
| 15°    | 1318.7 | 1320.3 | 1315.7 | 1329.5 | 1328.0 |
| 17.5°  | 1294.1 | 1298.7 | 1297.2 | 1311.0 | 1309.5 |
| 20°    | 1268.0 | 1272.6 | 1274.1 | 1289.5 | 1289.5 |
| 22.5°  | 1238.7 | 1244.9 | 1248.0 | 1263.3 | 1266.4 |
| 25°    | 1206.4 | 1215.6 | 1220.3 | 1237.2 | 1238.7 |
| 27.5°  | 1171.0 | 1184.9 | 1191.0 | 1206.4 | 1207.9 |
| 30°    | 1135.6 | 1147.9 | 1158.7 | 1175.6 | 1178.7 |
| 32.5°  | 1097.2 | 1112.5 | 1124.9 | 1144.9 | 1147.9 |
| 35°    | 1055.6 | 1074.1 | 1089.5 | 1111.0 | 1115.6 |
| 37.5°  | 1014.1 | 1035.6 | 1054.1 | 1075.6 | 1080.2 |
| 40°    | 974.1  | 994.1  | 1015.6 | 1038.7 | 1044.8 |
| 42.5°  | 927.9  | 951.0  | 977.1  | 1003.3 | 1007.9 |
| 45°    | 880.2  | 909.4  | 938.7  | 964.8  | 972.5  |
| 47.5°  | 835.6  | 864.8  | 898.7  | 924.8  | 934.0  |
| 50°    | 786.3  | 820.2  | 854.0  | 884.8  | 894.0  |
| 52.5°  | 737.1  | 770.9  | 810.9  | 841.7  | 850.9  |
| 55°    | 689.4  | 721.7  | 767.9  | 798.6  | 807.9  |
| 57.5°  | 635.5  | 675.5  | 720.2  | 757.1  | 764.8  |
| 60°    | 583.2  | 623.2  | 674.0  | 709.4  | 721.7  |
| 62.5°  | 532.4  | 577.0  | 627.8  | 663.2  | 675.5  |
| 65°    | 477.0  | 526.3  | 578.6  | 617.1  | 629.4  |
| 67.5°  | 424.7  | 477.0  | 532.4  | 570.9  | 583.2  |
| 70°    | 370.8  | 423.2  | 481.6  | 523.2  | 534.0  |
| 72.5°  | 318.5  | 372.4  | 435.5  | 475.5  | 487.8  |
| 75°    | 264.7  | 321.6  | 386.2  | 429.3  | 443.2  |
| 77.5°  | 213.9  | 273.9  | 341.6  | 384.7  | 400.1  |
| 80°    | 167.7  | 229.3  | 297.0  | 343.1  | 355.5  |
| 82.5°  | 121.6  | 186.2  | 253.9  | 301.6  | 315.5  |
| 85°    | 81.6   | 146.2  | 215.4  | 261.6  | 277.0  |
| 87.5°  | 50.8   | 113.9  | 181.6  | 226.2  | 240.1  |
| 90°    | 25.7   | 95.1   | 172.4  | 219.3  | 232.8  |
| 92.5°  | 38.7   | 162.9  | 580.8  | 330.8  | 300.1  |
| 95°    | 56.9   | 187.0  | 1044.0 | 625.9  | 461.8  |
| 97.5°  | 79.9   | 191.5  | 1100.0 | 1086.4 | 834.4  |
| 100°   | 101.8  | 202.0  | 1014.7 | 1431.5 | 1193.3 |
| 102.5° | 124.1  | 216.0  | 912.2  | 1643.4 | 1507.2 |
| 105°   | 144.5  | 233.9  | 834.1  | 1717.3 | 1723.5 |
| 107.5° | 170.1  | 253.8  | 780.7  | 1684.5 | 1821.5 |
| 110°   | 194.3  | 272.3  | 753.2  | 1585.9 | 1816.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 217.4 | 292.2 | 735.5 | 1467.3 | 1740.9 |
| 115°   | 239.2 | 311.8 | 725.6 | 1361.4 | 1625.5 |
| 117.5° | 263.8 | 331.2 | 716.7 | 1275.0 | 1514.1 |
| 120°   | 286.9 | 348.4 | 709.0 | 1213.9 | 1419.9 |
| 122.5° | 309.2 | 366.7 | 700.2 | 1172.1 | 1343.7 |
| 125°   | 326.7 | 385.4 | 693.0 | 1140.4 | 1285.4 |
| 127.5° | 344.6 | 405.5 | 683.1 | 1108.4 | 1246.4 |
| 130°   | 357.5 | 423.5 | 674.3 | 1073.3 | 1210.3 |
| 132.5° | 372.0 | 440.3 | 666.9 | 1033.2 | 1172.5 |
| 135°   | 383.9 | 456.5 | 658.1 | 986.6  | 1124.2 |
| 137.5° | 397.3 | 468.8 | 652.0 | 938.7  | 1069.2 |
| 140°   | 411.8 | 481.7 | 646.3 | 891.8  | 1011.3 |
| 142.5° | 425.8 | 493.4 | 643.2 | 849.4  | 950.0  |
| 145°   | 440.4 | 502.5 | 641.0 | 808.8  | 894.2  |
| 147.5° | 457.1 | 512.6 | 637.6 | 773.6  | 841.9  |
| 150°   | 472.7 | 522.0 | 634.3 | 747.0  | 797.3  |
| 152.5° | 485.8 | 531.0 | 628.7 | 725.8  | 763.8  |
| 155°   | 499.2 | 538.8 | 623.1 | 705.7  | 735.9  |
| 157.5° | 512.6 | 546.1 | 617.5 | 686.8  | 710.2  |
| 160°   | 524.8 | 552.2 | 610.8 | 667.8  | 686.8  |
| 162.5° | 536.0 | 557.2 | 604.1 | 649.3  | 664.4  |
| 165°   | 543.8 | 560.6 | 597.4 | 632.6  | 642.1  |
| 167.5° | 552.8 | 563.4 | 590.7 | 618.1  | 624.2  |
| 170°   | 558.3 | 565.6 | 584.0 | 603.6  | 607.5  |
| 172.5° | 563.9 | 567.3 | 577.3 | 590.7  | 590.7  |
| 175°   | 567.3 | 568.4 | 572.9 | 580.7  | 578.4  |
| 177.5° | 569.5 | 568.4 | 569.5 | 573.4  | 569.5  |
| 180°   | 568.4 | 568.4 | 568.4 | 568.4  | 568.4  |

(END OF REPORT)