

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: P1025248

Luminaire Tested: S124DIP-B1195D810UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025248  
REPORT IS A COMBINATION OF REPORTS P995713 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B1195D810UB50-4F0-XX-W2A-D  
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

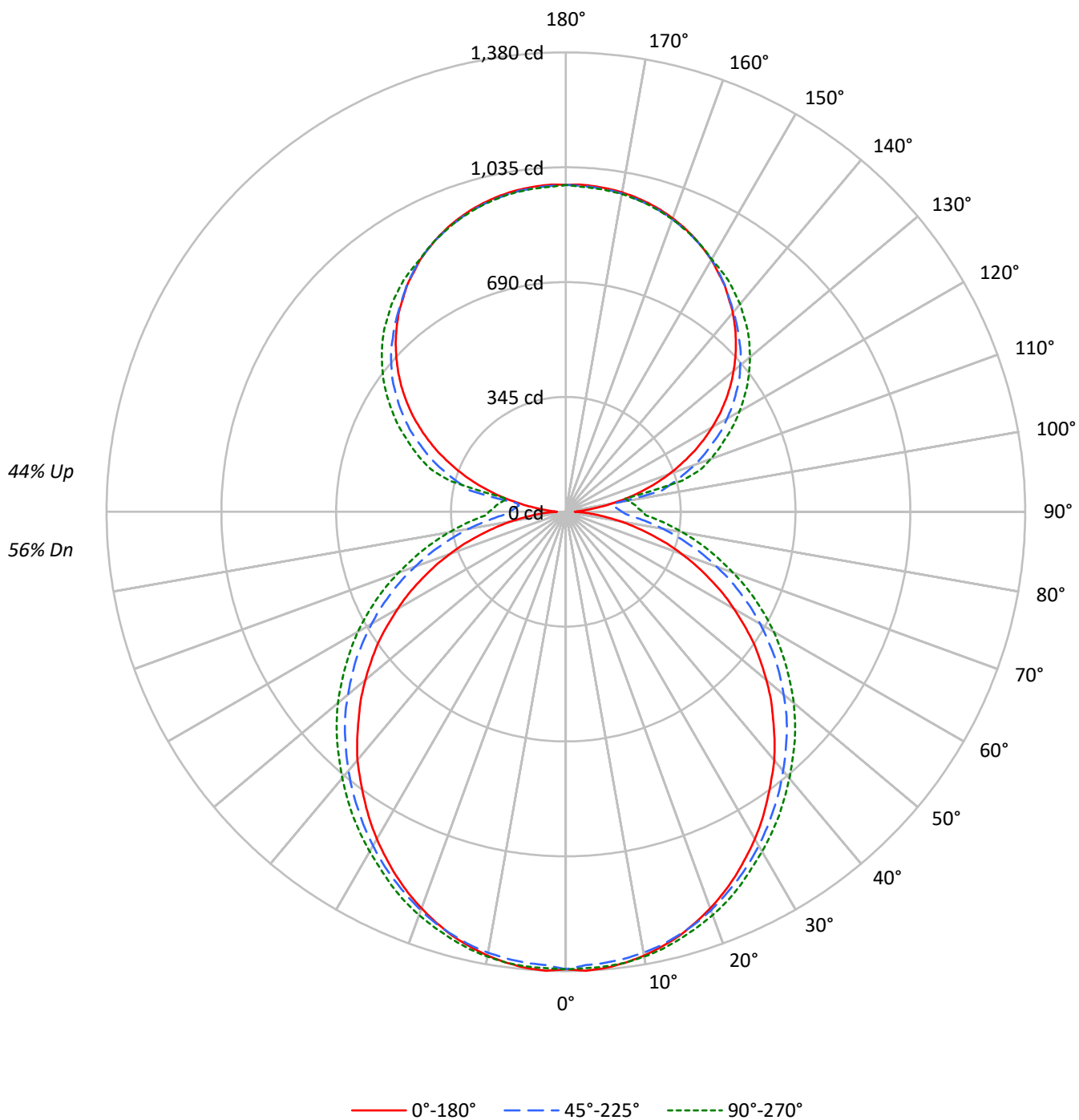
Lumens per Lamp: N/A  
Luminaire Lumens: 7725.0 lumens  
Efficiency: N/A  
Efficacy: 93.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 82.4  
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   | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 |
| 1   | 98  | 93  | 89  | 85  | 91  | 87  | 83  | 79  | 74 | 72 | 69 | 63 | 61 | 59 | 53 | 51 | 50 |
| 2   | 89  | 81  | 74  | 68  | 82  | 75  | 69  | 64  | 65 | 60 | 56 | 55 | 51 | 48 | 46 | 43 | 41 |
| 3   | 81  | 71  | 63  | 56  | 75  | 66  | 59  | 53  | 56 | 51 | 47 | 48 | 44 | 40 | 40 | 37 | 34 |
| 4   | 74  | 62  | 54  | 47  | 68  | 58  | 50  | 45  | 50 | 44 | 39 | 43 | 38 | 34 | 36 | 32 | 29 |
| 5   | 68  | 55  | 47  | 40  | 62  | 52  | 44  | 38  | 45 | 38 | 34 | 38 | 33 | 30 | 32 | 28 | 25 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 39  | 33  | 40 | 34 | 29 | 34 | 29 | 26 | 29 | 25 | 22 |
| 7   | 57  | 45  | 36  | 30  | 53  | 42  | 34  | 29  | 36 | 30 | 26 | 31 | 26 | 23 | 26 | 23 | 20 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 31  | 26  | 33 | 27 | 23 | 28 | 24 | 20 | 24 | 20 | 17 |
| 9   | 50  | 37  | 29  | 24  | 46  | 35  | 28  | 23  | 30 | 24 | 20 | 26 | 21 | 18 | 22 | 18 | 16 |
| 10  | 46  | 34  | 26  | 21  | 43  | 32  | 25  | 20  | 28 | 22 | 18 | 24 | 20 | 16 | 21 | 17 | 14 |

**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  | 1.7       |
| 10°-20°   | 373.1  | 4.8       |
| 20°-30°   | 564.1  | 7.3       |
| 30°-40°   | 682.4  | 8.8       |
| 40°-50°   | 721.4  | 9.3       |
| 50°-60°   | 678.9  | 8.8       |
| 60°-70°   | 563.4  | 7.3       |
| 70°-80°   | 395.4  | 5.1       |
| 80°-90°   | 224.9  | 2.9       |
| 90°-100°  | 165.3  | 2.1       |
| 100°-110° | 312.9  | 4.1       |
| 110°-120° | 475.8  | 6.2       |
| 120°-130° | 557.4  | 7.2       |
| 130°-140° | 572.6  | 7.4       |
| 140°-150° | 523.6  | 6.8       |
| 150°-160° | 419.7  | 5.4       |
| 160°-170° | 270.7  | 3.5       |
| 170°-180° | 93.3   | 1.2       |
| 0°-30°    | 1067.3 | 13.8      |
| 0°-40°    | 1749.7 | 22.6      |
| 0°-60°    | 3150.1 | 40.8      |
| 0°-90°    | 4333.7 | 56.1      |
| 90°-120°  | 953.9  | 12.3      |
| 90°-150°  | 2607.6 | 33.8      |
| 90°-180°  | 3391.0 | 43.9      |
| 0°-180°   | 7725.0 | 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°  | 27   | 96    | 168  | 218   | 231  | 19   |
| 95°  | 60   | 86    | 150  | 196   | 211  | 66   |
| 105° | 235  | 270   | 331  | 376   | 362  | 247  |
| 115° | 422  | 438   | 486  | 522   | 532  | 416  |
| 125° | 586  | 588   | 625  | 656   | 666  | 524  |
| 135° | 723  | 722   | 736  | 762   | 772  | 557  |
| 145° | 831  | 832   | 832  | 842   | 850  | 520  |
| 155° | 910  | 911   | 908  | 911   | 909  | 420  |
| 165° | 960  | 956   | 956  | 962   | 955  | 271  |
| 175° | 982  | 977   | 978  | 985   | 976  | 93   |
| 180° | 982  | 982   | 982  | 982   | 982  |      |

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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°    | 26.8   | 96.5   | 168.5  | 217.6  | 231.3  |
| 92.5°  | 34.1   | 86.4   | 158.5  | 206.0  | 218.3  |
| 95°    | 60.4   | 86.2   | 150.1  | 196.0  | 210.6  |
| 97.5°  | 95.6   | 156.4  | 142.4  | 186.0  | 200.6  |
| 100°   | 137.3  | 190.5  | 149.2  | 178.3  | 189.9  |
| 102.5° | 185.8  | 228.5  | 295.8  | 170.6  | 182.9  |
| 105°   | 234.8  | 270.0  | 330.7  | 375.7  | 361.6  |
| 107.5° | 282.6  | 311.0  | 370.0  | 412.1  | 425.8  |
| 110°   | 329.5  | 353.3  | 411.5  | 448.4  | 462.9  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 375.0 | 397.8 | 450.1 | 483.3 | 498.5 |
| 115°   | 421.9 | 438.0 | 486.5 | 521.8 | 532.5 |
| 117.5° | 465.2 | 477.4 | 525.8 | 557.3 | 569.7 |
| 120°   | 507.8 | 515.3 | 559.2 | 591.4 | 602.3 |
| 122.5° | 548.9 | 550.4 | 593.3 | 624.9 | 634.2 |
| 125°   | 586.3 | 587.6 | 624.7 | 656.1 | 666.1 |
| 127.5° | 623.8 | 622.9 | 657.4 | 684.3 | 694.4 |
| 130°   | 658.1 | 657.4 | 684.2 | 712.6 | 721.8 |
| 132.5° | 691.2 | 691.2 | 712.5 | 739.4 | 747.9 |
| 135°   | 722.7 | 722.0 | 735.6 | 761.8 | 772.5 |
| 137.5° | 752.1 | 750.5 | 760.4 | 784.9 | 791.9 |
| 140°   | 780.7 | 780.6 | 783.7 | 805.9 | 814.3 |
| 142.5° | 804.8 | 807.8 | 807.0 | 825.4 | 831.6 |
| 145°   | 831.3 | 832.0 | 832.0 | 841.9 | 849.6 |
| 147.5° | 851.8 | 854.7 | 854.0 | 856.2 | 863.2 |
| 150°   | 874.6 | 876.0 | 875.3 | 875.3 | 876.0 |
| 152.5° | 892.2 | 894.4 | 892.9 | 894.4 | 893.7 |
| 155°   | 909.8 | 910.6 | 908.3 | 911.3 | 909.1 |
| 157.5° | 925.2 | 925.2 | 922.3 | 926.0 | 922.3 |
| 160°   | 938.5 | 936.3 | 935.5 | 939.9 | 935.5 |
| 162.5° | 950.2 | 947.3 | 946.5 | 950.9 | 945.8 |
| 165°   | 959.8 | 956.1 | 956.1 | 962.0 | 955.3 |
| 167.5° | 967.8 | 964.2 | 963.4 | 970.0 | 962.7 |
| 170°   | 974.4 | 970.0 | 970.8 | 976.6 | 969.3 |
| 172.5° | 978.8 | 974.4 | 975.2 | 981.0 | 973.0 |
| 175°   | 981.8 | 977.4 | 978.1 | 984.7 | 975.9 |
| 177.5° | 984.0 | 978.8 | 980.3 | 986.2 | 977.4 |
| 180°   | 981.8 | 981.8 | 981.8 | 981.8 | 981.8 |

(END OF REPORT)