

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: P1033723

Luminaire Tested: S124DIW-B795D1340UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033723  
REPORT IS A COMBINATION OF REPORTS P998050 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIW-B795D1340UB35-4F0-XX-W2A-F  
Description: Define 4 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

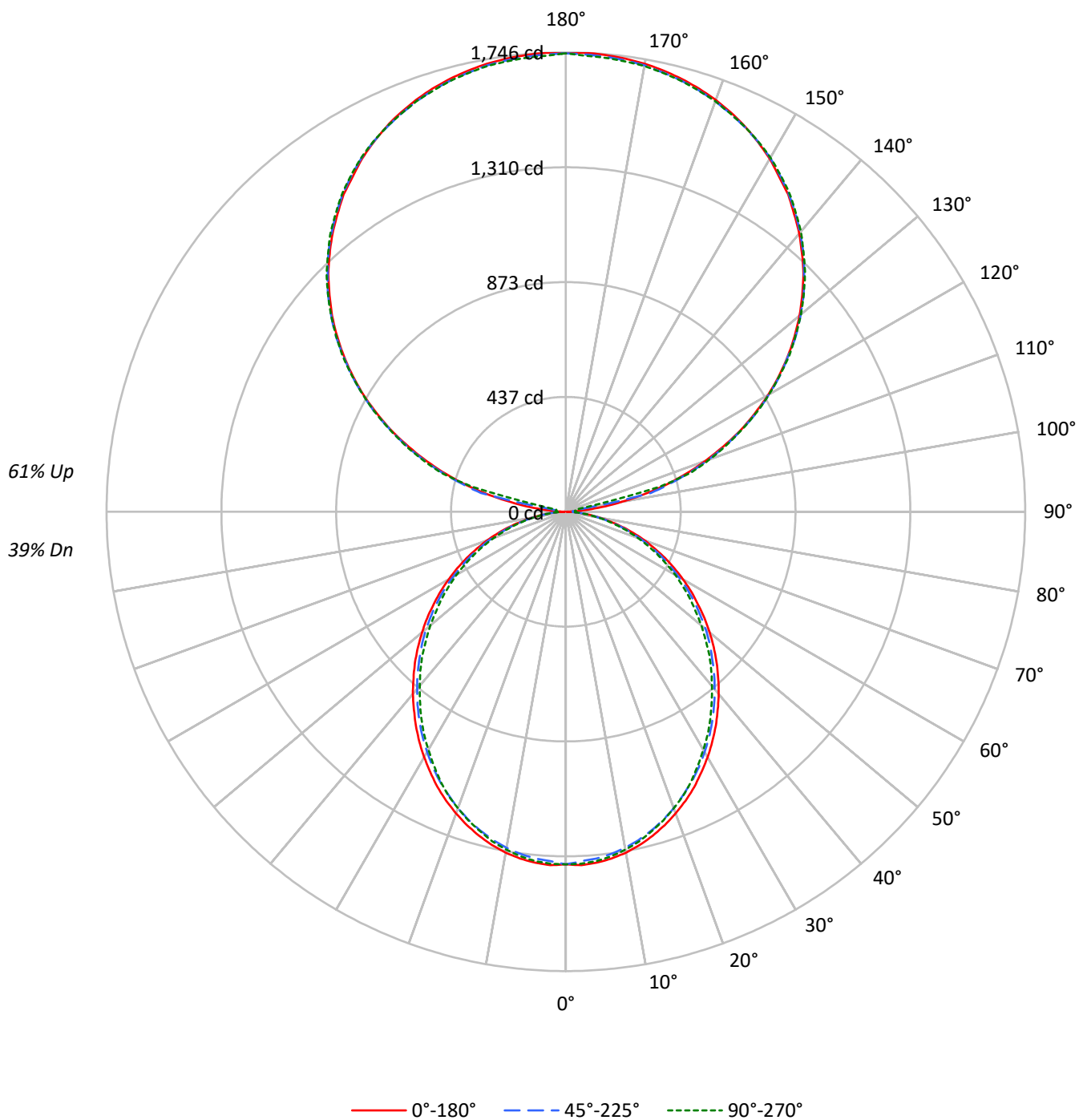
Lumens per Lamp: N/A  
Luminaire Lumens: 8835.0 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 78  
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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 77 | 77 | 77 | 61 | 61 | 61 | 46 | 46 | 46 |
| 1   | 95  | 91  | 87  | 84  | 86 | 83 | 80 | 77 | 68 | 65 | 63 | 54 | 52 | 51 | 41 | 40 | 39 |
| 2   | 87  | 79  | 73  | 68  | 79 | 72 | 67 | 63 | 59 | 55 | 52 | 47 | 44 | 42 | 36 | 34 | 33 |
| 3   | 79  | 70  | 63  | 57  | 72 | 64 | 57 | 52 | 52 | 48 | 44 | 42 | 38 | 36 | 32 | 30 | 28 |
| 4   | 72  | 62  | 54  | 48  | 65 | 56 | 50 | 44 | 46 | 41 | 37 | 37 | 33 | 31 | 28 | 26 | 24 |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 33 | 29 | 26 | 25 | 23 | 21 |
| 6   | 61  | 49  | 41  | 35  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 20 | 18 |
| 7   | 56  | 44  | 36  | 31  | 51 | 41 | 34 | 29 | 34 | 28 | 25 | 27 | 23 | 20 | 21 | 18 | 16 |
| 8   | 52  | 40  | 33  | 27  | 47 | 37 | 30 | 25 | 31 | 25 | 22 | 25 | 21 | 18 | 19 | 17 | 15 |
| 9   | 49  | 37  | 29  | 24  | 44 | 34 | 27 | 23 | 28 | 23 | 19 | 23 | 19 | 16 | 18 | 15 | 13 |
| 10  | 45  | 33  | 26  | 22  | 41 | 31 | 25 | 20 | 26 | 21 | 17 | 21 | 17 | 15 | 17 | 14 | 12 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10929 | 10929 | 10929 |
| 5°  | 10938 | 10615 | 10627 |
| 10° | 10845 | 10320 | 10247 |
| 15° | 10690 | 9969  | 9820  |
| 20° | 10491 | 9591  | 9376  |
| 25° | 10268 | 9190  | 8898  |
| 30° | 9998  | 8757  | 8374  |
| 35° | 9719  | 8314  | 7867  |
| 40° | 9427  | 7837  | 7328  |
| 45° | 9122  | 7359  | 6824  |
| 50° | 8785  | 6895  | 6266  |
| 55° | 8417  | 6353  | 5711  |
| 60° | 8041  | 5760  | 5134  |
| 65° | 7611  | 5148  | 4484  |
| 70° | 7117  | 4409  | 3786  |
| 75° | 6374  | 3555  | 3032  |
| 80° | 5433  | 2570  | 2133  |
| 85° | 4221  | 1430  | 1149  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9122 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.3  | 1.4       |
| 10°-20°   | 355.9  | 4.0       |
| 20°-30°   | 523.8  | 5.9       |
| 30°-40°   | 608.9  | 6.9       |
| 40°-50°   | 608.8  | 6.9       |
| 50°-60°   | 532.5  | 6.0       |
| 60°-70°   | 395.3  | 4.5       |
| 70°-80°   | 224.3  | 2.5       |
| 80°-90°   | 67.8   | 0.8       |
| 90°-100°  | 57.8   | 0.7       |
| 100°-110° | 380.9  | 4.3       |
| 110°-120° | 727.3  | 8.2       |
| 120°-130° | 923.3  | 10.5      |
| 130°-140° | 987.7  | 11.2      |
| 140°-150° | 923.6  | 10.5      |
| 150°-160° | 744.8  | 8.4       |
| 160°-170° | 480.4  | 5.4       |
| 170°-180° | 165.5  | 1.9       |
| 0°-30°    | 1006.0 | 11.4      |
| 0°-40°    | 1614.9 | 18.3      |
| 0°-60°    | 2756.1 | 31.2      |
| 0°-90°    | 3443.6 | 39.0      |
| 90°-120°  | 1166.1 | 13.2      |
| 90°-150°  | 4000.7 | 45.3      |
| 90°-180°  | 5391.0 | 61.0      |
| 0°-180°   | 8835.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1340 | 1340  | 1340 | 1340  | 1340 |      |
| 5°   | 1339 | 1335  | 1323 | 1335  | 1333 | 127  |
| 15°  | 1275 | 1270  | 1254 | 1261  | 1258 | 359  |
| 25°  | 1154 | 1147  | 1132 | 1133  | 1129 | 531  |
| 35°  | 993  | 986   | 971  | 963   | 958  | 621  |
| 45°  | 811  | 803   | 786  | 774   | 771  | 625  |
| 55°  | 613  | 610   | 595  | 582   | 576  | 549  |
| 65°  | 416  | 410   | 400  | 389   | 383  | 411  |
| 75°  | 221  | 216   | 210  | 206   | 205  | 235  |
| 85°  | 58   | 58    | 56   | 56    | 55   | 62   |
| 90°  | 4    | 18    | 29   | 36    | 39   | 8    |
| 95°  | 72   | 27    | 29   | 36    | 38   | 88   |
| 105° | 392  | 400   | 407  | 418   | 371  | 411  |
| 115° | 732  | 736   | 735  | 738   | 738  | 721  |
| 125° | 1030 | 1035  | 1032 | 1036  | 1037 | 919  |
| 135° | 1277 | 1276  | 1281 | 1284  | 1286 | 984  |
| 145° | 1473 | 1476  | 1476 | 1478  | 1480 | 920  |
| 155° | 1615 | 1616  | 1612 | 1617  | 1613 | 744  |
| 165° | 1703 | 1697  | 1697 | 1707  | 1695 | 481  |
| 175° | 1742 | 1734  | 1736 | 1748  | 1732 | 166  |
| 180° | 1742 | 1742  | 1742 | 1742  | 1742 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1340.2 | 1340.2 | 1340.2 | 1340.2 | 1340.2 |
| 2.5°   | 1344.5 | 1341.3 | 1329.5 | 1340.2 | 1339.2 |
| 5°     | 1339.2 | 1334.9 | 1323.1 | 1334.9 | 1332.7 |
| 7.5°   | 1329.5 | 1325.2 | 1312.3 | 1322.0 | 1320.9 |
| 10°    | 1315.5 | 1311.2 | 1297.3 | 1305.9 | 1303.7 |
| 12.5°  | 1297.3 | 1293.0 | 1278.0 | 1287.6 | 1284.4 |
| 15°    | 1274.7 | 1270.4 | 1254.3 | 1260.8 | 1257.6 |
| 17.5°  | 1249.0 | 1243.6 | 1228.6 | 1232.9 | 1230.7 |
| 20°    | 1220.0 | 1214.6 | 1198.5 | 1201.7 | 1199.6 |
| 22.5°  | 1188.8 | 1181.3 | 1165.2 | 1171.6 | 1167.3 |
| 25°    | 1154.5 | 1146.9 | 1131.9 | 1133.0 | 1128.7 |
| 27.5°  | 1115.8 | 1108.3 | 1094.3 | 1092.2 | 1086.8 |
| 30°    | 1077.1 | 1068.5 | 1054.6 | 1050.3 | 1044.9 |
| 32.5°  | 1036.3 | 1028.8 | 1013.8 | 1008.4 | 1003.0 |
| 35°    | 993.4  | 985.9  | 970.8  | 963.3  | 957.9  |
| 37.5°  | 948.3  | 941.8  | 925.7  | 918.2  | 910.7  |
| 40°    | 904.2  | 895.6  | 879.5  | 868.8  | 863.4  |
| 42.5°  | 857.0  | 852.7  | 834.4  | 821.5  | 818.3  |
| 45°    | 810.8  | 803.3  | 786.1  | 774.3  | 771.1  |
| 47.5°  | 762.5  | 757.1  | 741.0  | 728.1  | 719.5  |
| 50°    | 713.1  | 708.8  | 693.7  | 678.7  | 672.3  |
| 52.5°  | 664.8  | 659.4  | 643.3  | 630.4  | 621.8  |
| 55°    | 613.2  | 610.0  | 594.9  | 582.1  | 575.6  |
| 57.5°  | 564.9  | 561.7  | 546.6  | 533.7  | 527.3  |
| 60°    | 514.4  | 509.0  | 495.1  | 485.4  | 480.0  |
| 62.5°  | 465.0  | 460.7  | 445.7  | 437.1  | 431.7  |
| 65°    | 415.6  | 410.2  | 399.5  | 388.8  | 383.4  |
| 67.5°  | 365.1  | 360.8  | 350.1  | 339.4  | 338.3  |
| 70°    | 319.0  | 311.4  | 302.8  | 294.3  | 291.0  |
| 72.5°  | 269.6  | 262.0  | 255.6  | 249.1  | 245.9  |
| 75°    | 221.2  | 215.9  | 210.5  | 206.2  | 205.1  |
| 77.5°  | 174.0  | 171.8  | 166.5  | 165.4  | 162.2  |
| 80°    | 132.1  | 128.9  | 126.7  | 124.6  | 123.5  |
| 82.5°  | 91.3   | 90.2   | 90.2   | 89.1   | 88.1   |
| 85°    | 58.0   | 58.0   | 55.8   | 55.8   | 54.8   |
| 87.5°  | 27.9   | 26.8   | 25.8   | 25.8   | 25.8   |
| 90°    | 3.9    | 18.2   | 28.7   | 36.5   | 39.1   |
| 92.5°  | 19.5   | 16.9   | 27.4   | 35.2   | 35.2   |
| 95°    | 71.7   | 27.4   | 28.7   | 36.5   | 37.8   |
| 97.5°  | 136.8  | 165.5  | 28.7   | 35.2   | 36.5   |
| 100°   | 213.7  | 237.2  | 57.3   | 35.2   | 36.5   |
| 102.5° | 299.7  | 315.4  | 331.0  | 37.8   | 37.8   |
| 105°   | 392.3  | 400.1  | 406.6  | 418.3  | 371.4  |
| 107.5° | 477.0  | 480.9  | 490.0  | 496.5  | 501.7  |
| 110°   | 563.0  | 566.9  | 574.7  | 577.3  | 581.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 646.4  | 654.2  | 656.8  | 655.5  | 660.7  |
| 115°   | 732.4  | 736.3  | 735.0  | 737.6  | 737.6  |
| 117.5° | 809.3  | 814.5  | 818.4  | 817.1  | 817.1  |
| 120°   | 887.5  | 892.7  | 891.4  | 894.0  | 891.4  |
| 122.5° | 960.4  | 963.0  | 965.6  | 967.0  | 964.3  |
| 125°   | 1029.5 | 1034.7 | 1032.1 | 1036.0 | 1037.3 |
| 127.5° | 1096.0 | 1097.3 | 1103.8 | 1102.5 | 1101.2 |
| 130°   | 1159.8 | 1161.1 | 1165.0 | 1166.3 | 1166.3 |
| 132.5° | 1218.5 | 1221.1 | 1226.3 | 1227.6 | 1226.3 |
| 135°   | 1277.1 | 1275.8 | 1281.0 | 1283.6 | 1286.2 |
| 137.5° | 1329.2 | 1329.2 | 1335.7 | 1338.4 | 1337.1 |
| 140°   | 1380.1 | 1382.7 | 1385.3 | 1389.2 | 1390.5 |
| 142.5° | 1425.7 | 1430.9 | 1432.2 | 1434.8 | 1434.8 |
| 145°   | 1472.6 | 1476.5 | 1476.5 | 1477.8 | 1480.4 |
| 147.5° | 1509.1 | 1516.9 | 1515.6 | 1516.9 | 1518.2 |
| 150°   | 1549.5 | 1554.7 | 1553.4 | 1553.4 | 1554.7 |
| 152.5° | 1583.3 | 1587.3 | 1584.7 | 1587.3 | 1586.0 |
| 155°   | 1614.6 | 1615.9 | 1612.0 | 1617.2 | 1613.3 |
| 157.5° | 1642.0 | 1642.0 | 1636.8 | 1643.3 | 1636.8 |
| 160°   | 1665.4 | 1661.5 | 1660.2 | 1668.1 | 1660.2 |
| 162.5° | 1686.3 | 1681.1 | 1679.8 | 1687.6 | 1678.5 |
| 165°   | 1703.2 | 1696.7 | 1696.7 | 1707.2 | 1695.4 |
| 167.5° | 1717.6 | 1711.1 | 1709.8 | 1721.5 | 1708.5 |
| 170°   | 1729.3 | 1721.5 | 1722.8 | 1733.2 | 1720.2 |
| 172.5° | 1737.1 | 1729.3 | 1730.6 | 1741.0 | 1726.7 |
| 175°   | 1742.3 | 1734.5 | 1735.8 | 1747.5 | 1731.9 |
| 177.5° | 1746.2 | 1737.1 | 1739.7 | 1750.2 | 1734.5 |
| 180°   | 1742.3 | 1742.3 | 1742.3 | 1742.3 | 1742.3 |

(END OF REPORT)