

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: P1034254

Luminaire Tested: S124RDIW-B795D1340UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1034254  
REPORT IS A COMBINATION OF REPORTS P1000784 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B795D1340UB50-4F0-XX-W2A-F  
Description: Define 4 Regressed Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

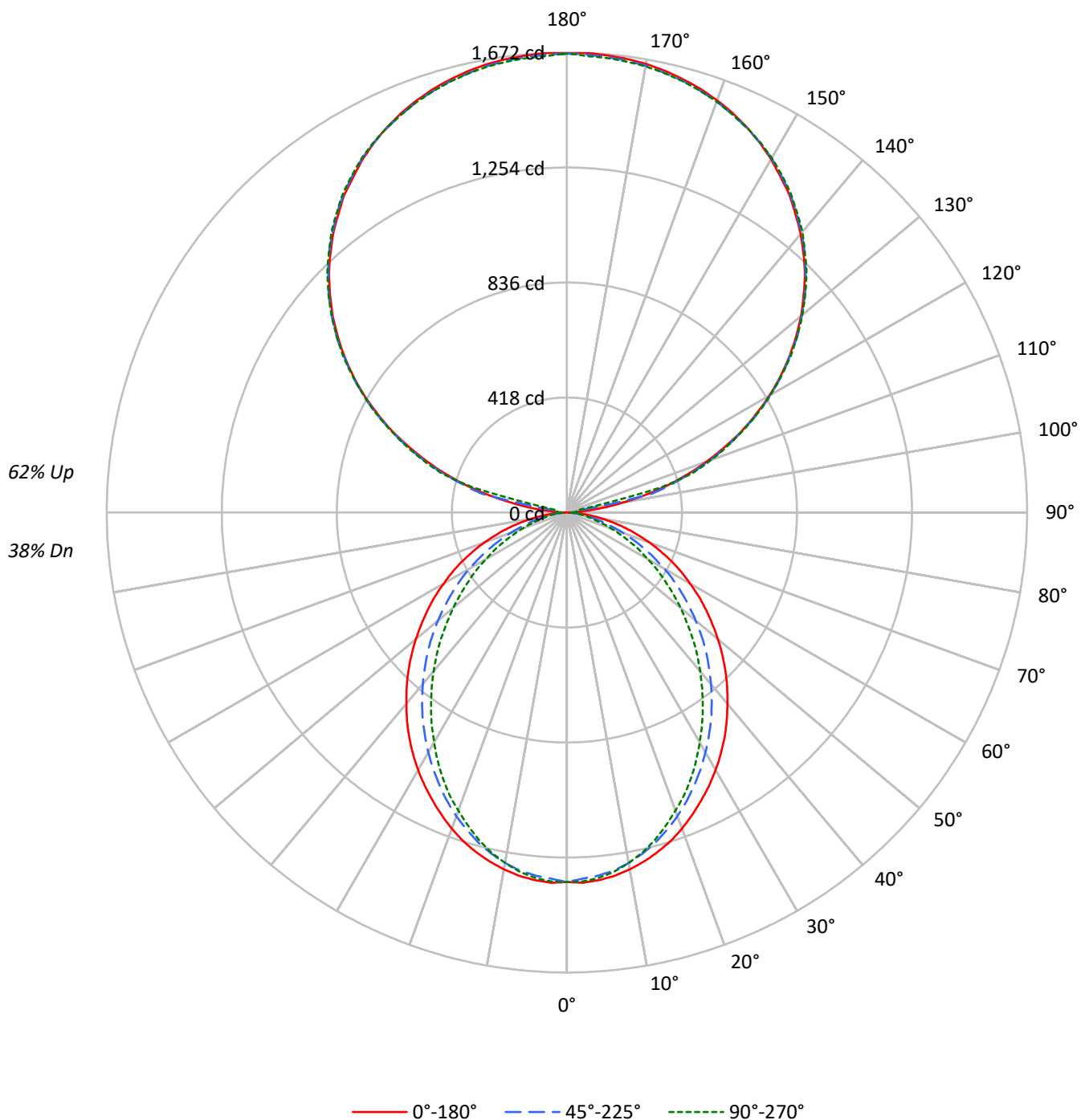
Lumens per Lamp: N/A  
Luminaire Lumens: 8268.0 lumens  
Efficiency: N/A  
Efficacy: 106.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 95 | 95 | 95 | 95 | 76 | 76 | 76 | 60 | 60 | 60 | 45 | 45 | 45 | 38 |    |    |
| 1   | 95  | 91  | 87  | 84  | 86 | 83 | 80 | 77 | 67 | 65 | 63 | 53 | 52 | 50 | 40 | 39 | 38 | 32 |    |    |
| 2   | 87  | 80  | 74  | 69  | 79 | 73 | 68 | 63 | 59 | 56 | 52 | 47 | 44 | 42 | 35 | 34 | 32 | 27 |    |    |
| 3   | 79  | 70  | 63  | 58  | 72 | 64 | 58 | 53 | 52 | 48 | 44 | 41 | 38 | 36 | 31 | 29 | 28 | 23 |    |    |
| 4   | 73  | 62  | 55  | 49  | 66 | 57 | 50 | 45 | 47 | 42 | 38 | 37 | 34 | 31 | 28 | 26 | 24 | 20 |    |    |
| 5   | 67  | 55  | 48  | 42  | 60 | 51 | 44 | 39 | 42 | 37 | 33 | 33 | 30 | 27 | 25 | 23 | 21 | 18 |    |    |
| 6   | 61  | 50  | 42  | 36  | 56 | 45 | 39 | 34 | 37 | 32 | 28 | 30 | 26 | 23 | 23 | 21 | 19 | 15 |    |    |
| 7   | 57  | 45  | 37  | 32  | 51 | 41 | 34 | 29 | 34 | 29 | 25 | 27 | 24 | 21 | 21 | 19 | 17 | 14 |    |    |
| 8   | 53  | 41  | 33  | 28  | 48 | 37 | 31 | 26 | 31 | 26 | 22 | 25 | 21 | 19 | 19 | 17 | 15 | 12 |    |    |
| 9   | 49  | 37  | 30  | 25  | 44 | 34 | 28 | 23 | 28 | 23 | 20 | 23 | 19 | 17 | 18 | 15 | 13 | 11 |    |    |
| 10  | 46  | 34  | 27  | 22  | 41 | 31 | 25 | 21 | 26 | 21 | 18 | 21 | 18 | 15 | 17 | 14 | 12 | 10 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10951 | 10951 | 10951 |
| 5°  | 10952 | 10625 | 10627 |
| 10° | 10859 | 10290 | 10168 |
| 15° | 10710 | 9873  | 9627  |
| 20° | 10514 | 9397  | 9009  |
| 25° | 10271 | 8883  | 8406  |
| 30° | 10031 | 8360  | 7729  |
| 35° | 9769  | 7828  | 7068  |
| 40° | 9456  | 7257  | 6388  |
| 45° | 9163  | 6690  | 5716  |
| 50° | 8829  | 6071  | 5031  |
| 55° | 8469  | 5436  | 4326  |
| 60° | 8069  | 4762  | 3629  |
| 65° | 7682  | 3988  | 2959  |
| 70° | 7135  | 3175  | 2261  |
| 75° | 6429  | 2310  | 1581  |
| 80° | 5371  | 1418  | 1137  |
| 85° | 4039  | 817   | 625   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9163 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.3  | 1.5       |
| 10°-20°   | 352.1  | 4.3       |
| 20°-30°   | 508.3  | 6.1       |
| 30°-40°   | 576.1  | 7.0       |
| 40°-50°   | 556.3  | 6.7       |
| 50°-60°   | 462.5  | 5.6       |
| 60°-70°   | 319.2  | 3.9       |
| 70°-80°   | 161.3  | 2.0       |
| 80°-90°   | 44.4   | 0.5       |
| 90°-100°  | 55.4   | 0.7       |
| 100°-110° | 364.6  | 4.4       |
| 110°-120° | 696.3  | 8.4       |
| 120°-130° | 883.9  | 10.7      |
| 130°-140° | 945.6  | 11.4      |
| 140°-150° | 884.2  | 10.7      |
| 150°-160° | 713.1  | 8.6       |
| 160°-170° | 459.9  | 5.6       |
| 170°-180° | 158.5  | 1.9       |
| 0°-30°    | 986.7  | 11.9      |
| 0°-40°    | 1562.8 | 18.9      |
| 0°-60°    | 2581.6 | 31.2      |
| 0°-90°    | 3106.4 | 37.6      |
| 90°-120°  | 1116.3 | 13.5      |
| 90°-150°  | 3830.1 | 46.3      |
| 90°-180°  | 5162.0 | 62.4      |
| 0°-180°   | 8268.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1343 | 1343  | 1343 | 1343  | 1343 |      |
| 5°   | 1341 | 1337  | 1324 | 1335  | 1333 | 127  |
| 15°  | 1277 | 1268  | 1242 | 1240  | 1233 | 360  |
| 25°  | 1155 | 1136  | 1094 | 1077  | 1066 | 532  |
| 35°  | 998  | 966   | 914  | 879   | 861  | 624  |
| 45°  | 814  | 776   | 715  | 664   | 646  | 628  |
| 55°  | 617  | 576   | 509  | 456   | 436  | 552  |
| 65°  | 420  | 375   | 310  | 265   | 253  | 414  |
| 75°  | 223  | 185   | 137  | 113   | 107  | 235  |
| 85°  | 56   | 35    | 32   | 30    | 30   | 61   |
| 90°  | 4    | 18    | 27   | 35    | 37   | 7    |
| 95°  | 69   | 26    | 27   | 35    | 36   | 85   |
| 105° | 376  | 383   | 389  | 400   | 356  | 393  |
| 115° | 701  | 705   | 704  | 706   | 706  | 690  |
| 125° | 986  | 991   | 988  | 992   | 993  | 880  |
| 135° | 1223 | 1221  | 1226 | 1229  | 1231 | 942  |
| 145° | 1410 | 1414  | 1414 | 1415  | 1417 | 881  |
| 155° | 1546 | 1547  | 1543 | 1548  | 1544 | 713  |
| 165° | 1631 | 1624  | 1624 | 1634  | 1623 | 461  |
| 175° | 1668 | 1661  | 1662 | 1673  | 1658 | 159  |
| 180° | 1668 | 1668  | 1668 | 1668  | 1668 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1342.9 | 1342.9 | 1342.9 | 1342.9 | 1342.9 |
| 2.5°   | 1347.1 | 1342.9 | 1331.6 | 1342.9 | 1341.9 |
| 5°     | 1340.9 | 1336.8 | 1324.4 | 1334.7 | 1332.7 |
| 7.5°   | 1331.6 | 1327.5 | 1312.1 | 1319.3 | 1316.2 |
| 10°    | 1317.2 | 1312.1 | 1293.6 | 1297.7 | 1293.6 |
| 12.5°  | 1298.7 | 1292.6 | 1269.9 | 1272.0 | 1265.8 |
| 15°    | 1277.1 | 1267.9 | 1242.2 | 1240.1 | 1232.9 |
| 17.5°  | 1252.4 | 1239.1 | 1209.3 | 1204.1 | 1193.8 |
| 20°    | 1222.6 | 1209.3 | 1174.3 | 1166.1 | 1152.7 |
| 22.5°  | 1189.7 | 1174.3 | 1136.3 | 1122.9 | 1112.6 |
| 25°    | 1154.8 | 1136.3 | 1094.1 | 1076.6 | 1066.3 |
| 27.5°  | 1118.8 | 1096.1 | 1051.9 | 1031.4 | 1017.0 |
| 30°    | 1080.7 | 1055.0 | 1006.7 | 981.0  | 964.5  |
| 32.5°  | 1040.6 | 1010.8 | 960.4  | 929.6  | 914.1  |
| 35°    | 998.5  | 965.6  | 914.1  | 879.2  | 860.7  |
| 37.5°  | 954.2  | 920.3  | 863.8  | 825.7  | 807.2  |
| 40°    | 906.9  | 873.0  | 814.4  | 771.2  | 752.7  |
| 42.5°  | 861.7  | 825.7  | 764.0  | 719.8  | 700.3  |
| 45°    | 814.4  | 776.4  | 714.7  | 664.3  | 645.8  |
| 47.5°  | 766.1  | 727.0  | 663.2  | 610.8  | 590.2  |
| 50°    | 716.7  | 676.6  | 610.8  | 559.4  | 539.8  |
| 52.5°  | 666.3  | 627.3  | 559.4  | 506.9  | 486.4  |
| 55°    | 617.0  | 575.8  | 509.0  | 455.5  | 436.0  |
| 57.5°  | 568.6  | 525.5  | 459.6  | 405.1  | 390.7  |
| 60°    | 516.2  | 475.1  | 409.3  | 355.8  | 339.3  |
| 62.5°  | 468.9  | 425.7  | 357.8  | 309.5  | 297.2  |
| 65°    | 419.5  | 375.3  | 309.5  | 265.3  | 253.0  |
| 67.5°  | 368.1  | 326.0  | 264.3  | 225.2  | 210.8  |
| 70°    | 319.8  | 276.6  | 218.0  | 184.1  | 173.8  |
| 72.5°  | 268.4  | 230.3  | 175.8  | 148.1  | 138.8  |
| 75°    | 223.1  | 185.1  | 136.8  | 113.1  | 106.9  |
| 77.5°  | 175.8  | 142.9  | 101.8  | 85.3   | 83.3   |
| 80°    | 130.6  | 100.8  | 69.9   | 66.8   | 65.8   |
| 82.5°  | 91.5   | 64.8   | 50.4   | 48.3   | 47.3   |
| 85°    | 55.5   | 35.0   | 31.9   | 29.8   | 29.8   |
| 87.5°  | 23.7   | 15.4   | 14.4   | 13.4   | 14.4   |
| 90°    | 3.7    | 17.5   | 27.4   | 34.9   | 37.4   |
| 92.5°  | 18.7   | 16.2   | 26.2   | 33.7   | 33.7   |
| 95°    | 68.6   | 26.2   | 27.4   | 34.9   | 36.2   |
| 97.5°  | 131.0  | 158.4  | 27.4   | 33.7   | 34.9   |
| 100°   | 204.6  | 227.1  | 54.9   | 33.7   | 34.9   |
| 102.5° | 287.0  | 301.9  | 316.9  | 36.2   | 36.2   |
| 105°   | 375.5  | 383.0  | 389.3  | 400.5  | 355.6  |
| 107.5° | 456.6  | 460.4  | 469.1  | 475.3  | 480.3  |
| 110°   | 539.0  | 542.7  | 550.2  | 552.7  | 556.4  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 618.8  | 626.3  | 628.8  | 627.5  | 632.5  |
| 115°   | 701.2  | 704.9  | 703.7  | 706.1  | 706.1  |
| 117.5° | 774.8  | 779.8  | 783.5  | 782.3  | 782.3  |
| 120°   | 849.6  | 854.6  | 853.4  | 855.9  | 853.4  |
| 122.5° | 919.5  | 922.0  | 924.5  | 925.7  | 923.2  |
| 125°   | 985.6  | 990.6  | 988.1  | 991.9  | 993.1  |
| 127.5° | 1049.2 | 1050.5 | 1056.7 | 1055.5 | 1054.2 |
| 130°   | 1110.4 | 1111.6 | 1115.4 | 1116.6 | 1116.6 |
| 132.5° | 1166.5 | 1169.0 | 1174.0 | 1175.3 | 1174.0 |
| 135°   | 1222.7 | 1221.4 | 1226.4 | 1228.9 | 1231.4 |
| 137.5° | 1272.6 | 1272.6 | 1278.8 | 1281.3 | 1280.0 |
| 140°   | 1321.2 | 1323.7 | 1326.2 | 1330.0 | 1331.2 |
| 142.5° | 1364.9 | 1369.9 | 1371.1 | 1373.6 | 1373.6 |
| 145°   | 1409.8 | 1413.5 | 1413.5 | 1414.8 | 1417.3 |
| 147.5° | 1444.7 | 1452.2 | 1451.0 | 1452.2 | 1453.5 |
| 150°   | 1483.4 | 1488.4 | 1487.2 | 1487.2 | 1488.4 |
| 152.5° | 1515.8 | 1519.6 | 1517.1 | 1519.6 | 1518.3 |
| 155°   | 1545.8 | 1547.0 | 1543.3 | 1548.3 | 1544.5 |
| 157.5° | 1572.0 | 1572.0 | 1567.0 | 1573.2 | 1567.0 |
| 160°   | 1594.4 | 1590.7 | 1589.5 | 1596.9 | 1589.5 |
| 162.5° | 1614.4 | 1609.4 | 1608.2 | 1615.7 | 1606.9 |
| 165°   | 1630.6 | 1624.4 | 1624.4 | 1634.4 | 1623.1 |
| 167.5° | 1644.4 | 1638.1 | 1636.9 | 1648.1 | 1635.6 |
| 170°   | 1655.6 | 1648.1 | 1649.3 | 1659.3 | 1646.8 |
| 172.5° | 1663.1 | 1655.6 | 1656.8 | 1666.8 | 1653.1 |
| 175°   | 1668.1 | 1660.6 | 1661.8 | 1673.0 | 1658.1 |
| 177.5° | 1671.8 | 1663.1 | 1665.6 | 1675.5 | 1660.6 |
| 180°   | 1668.1 | 1668.1 | 1668.1 | 1668.1 | 1668.1 |

(END OF REPORT)