

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: P1033269

Luminaire Tested: S124DIW-B1195D1340UB27-4F0-XX-W2A-D1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033269  
REPORT IS A COMBINATION OF REPORTS P997019 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIW-B1195D1340UB27-4F0-XX-W2A-D1  
Description: Define 4 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

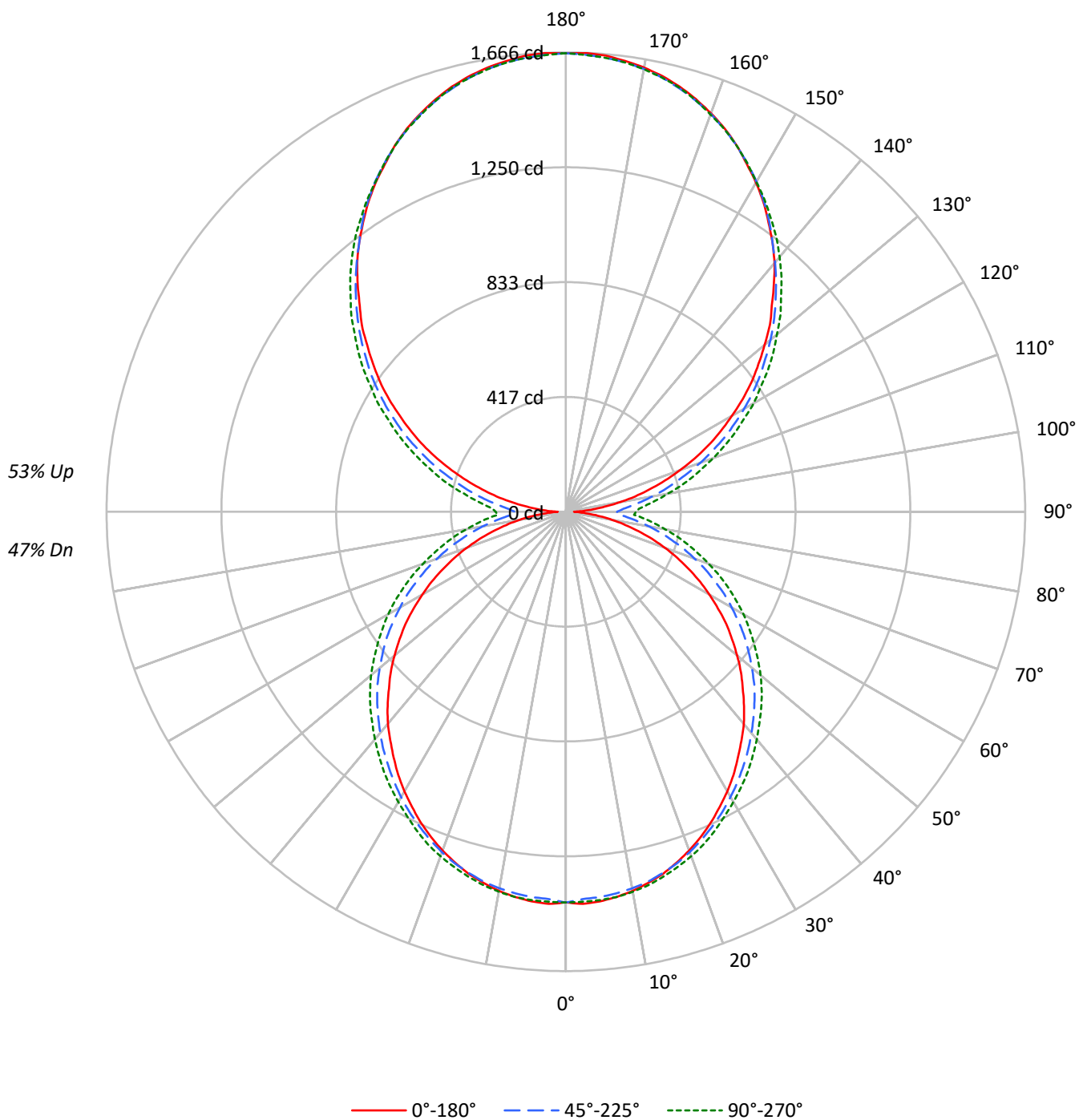
Lumens per Lamp: N/A  
Luminaire Lumens: 9449.0 lumens  
Efficiency: N/A  
Efficacy: 91.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 103.4  
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 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |  |    |    |    |  |    |
| 0   | 107 | 107 | 107 | 107 | 98 | 98 | 98 | 98 | 82 | 82 | 82 |  | 67 | 67 | 67 |  | 54 |
| 1   | 96  | 91  | 87  | 83  | 88 | 84 | 80 | 77 | 70 | 68 | 65 |  | 58 | 56 | 54 |  | 46 |
| 2   | 87  | 79  | 73  | 67  | 80 | 73 | 67 | 62 | 61 | 57 | 53 |  | 50 | 47 | 44 |  | 40 |
| 3   | 79  | 69  | 62  | 56  | 72 | 64 | 57 | 52 | 53 | 48 | 44 |  | 44 | 40 | 37 |  | 35 |
| 4   | 72  | 61  | 53  | 47  | 66 | 56 | 49 | 44 | 47 | 42 | 37 |  | 39 | 35 | 31 |  | 31 |
| 5   | 66  | 54  | 46  | 40  | 61 | 50 | 43 | 37 | 42 | 36 | 32 |  | 35 | 30 | 27 |  | 28 |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 37 | 32 | 38 | 32 | 28 |  | 31 | 27 | 23 |  | 25 |
| 7   | 56  | 44  | 36  | 30  | 51 | 40 | 33 | 28 | 34 | 28 | 24 |  | 28 | 24 | 21 |  | 23 |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 31 | 26 | 21 |  | 26 | 22 | 18 |  | 21 |
| 9   | 49  | 36  | 28  | 23  | 44 | 33 | 27 | 22 | 28 | 23 | 19 |  | 24 | 19 | 16 |  | 19 |
| 10  | 45  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 26 | 21 | 17 |  | 22 | 18 | 15 |  | 18 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11555 | 11555 | 11555 |
| 5°  | 11586 | 11254 | 11274 |
| 10° | 11511 | 11032 | 11000 |
| 15° | 11403 | 10783 | 10692 |
| 20° | 11244 | 10513 | 10393 |
| 25° | 11064 | 10216 | 10070 |
| 30° | 10869 | 9922  | 9740  |
| 35° | 10649 | 9621  | 9447  |
| 40° | 10472 | 9331  | 9144  |
| 45° | 10211 | 9060  | 8875  |
| 50° | 9988  | 8752  | 8592  |
| 55° | 9758  | 8456  | 8266  |
| 60° | 9401  | 8086  | 7959  |
| 65° | 9008  | 7688  | 7590  |
| 70° | 8531  | 7233  | 7163  |
| 75° | 7864  | 6726  | 6757  |
| 80° | 7115  | 6210  | 6331  |
| 85° | 6120  | 5691  | 5986  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10211 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 134.3  | 1.4       |
| 10°-20°   | 384.7  | 4.1       |
| 20°-30°   | 581.6  | 6.2       |
| 30°-40°   | 703.7  | 7.4       |
| 40°-50°   | 743.9  | 7.9       |
| 50°-60°   | 700.1  | 7.4       |
| 60°-70°   | 581.0  | 6.1       |
| 70°-80°   | 407.7  | 4.3       |
| 80°-90°   | 233.4  | 2.5       |
| 90°-100°  | 245.3  | 2.6       |
| 100°-110° | 426.0  | 4.5       |
| 110°-120° | 619.6  | 6.6       |
| 120°-130° | 765.8  | 8.1       |
| 130°-140° | 833.6  | 8.8       |
| 140°-150° | 806.3  | 8.5       |
| 150°-160° | 675.4  | 7.1       |
| 160°-170° | 449.4  | 4.8       |
| 170°-180° | 157.4  | 1.7       |
| 0°-30°    | 1100.6 | 11.6      |
| 0°-40°    | 1804.2 | 19.1      |
| 0°-60°    | 3248.2 | 34.4      |
| 0°-90°    | 4470.2 | 47.3      |
| 90°-120°  | 1290.8 | 13.7      |
| 90°-150°  | 3696.5 | 39.1      |
| 90°-180°  | 4979.0 | 52.7      |
| 0°-180°   | 9449.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1417 | 1417  | 1417 | 1417  | 1417 |      |
| 5°   | 1418 | 1414  | 1403 | 1415  | 1414 | 135  |
| 15°  | 1360 | 1361  | 1357 | 1371  | 1369 | 383  |
| 25°  | 1244 | 1254  | 1258 | 1276  | 1277 | 573  |
| 35°  | 1088 | 1108  | 1123 | 1146  | 1150 | 682  |
| 45°  | 908  | 938   | 968  | 995   | 1003 | 701  |
| 55°  | 711  | 744   | 792  | 824   | 833  | 633  |
| 65°  | 492  | 543   | 597  | 636   | 649  | 488  |
| 75°  | 273  | 332   | 398  | 443   | 457  | 290  |
| 85°  | 84   | 151   | 222  | 270   | 286  | 88   |
| 90°  | 29   | 107   | 185  | 239   | 254  | 23   |
| 95°  | 98   | 162   | 236  | 282   | 297  | 100  |
| 105° | 314  | 347   | 411  | 454   | 471  | 334  |
| 115° | 570  | 585   | 633  | 666   | 676  | 563  |
| 125° | 823  | 822   | 860  | 888   | 894  | 734  |
| 135° | 1057 | 1064  | 1075 | 1098  | 1104 | 818  |
| 145° | 1281 | 1285  | 1286 | 1294  | 1297 | 802  |
| 155° | 1466 | 1466  | 1465 | 1470  | 1465 | 675  |
| 165° | 1596 | 1592  | 1590 | 1598  | 1592 | 450  |
| 175° | 1660 | 1654  | 1653 | 1662  | 1653 | 158  |
| 180° | 1663 | 1663  | 1663 | 1663  | 1663 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1417.0 | 1417.0 | 1417.0 | 1417.0 | 1417.0 |
| 2.5°   | 1423.3 | 1418.5 | 1405.9 | 1417.0 | 1415.4 |
| 5°     | 1418.5 | 1413.8 | 1402.7 | 1415.4 | 1413.8 |
| 7.5°   | 1409.0 | 1405.9 | 1396.3 | 1410.6 | 1409.0 |
| 10°    | 1396.3 | 1394.7 | 1386.8 | 1401.1 | 1399.5 |
| 12.5°  | 1378.9 | 1378.9 | 1374.1 | 1386.8 | 1386.8 |
| 15°    | 1359.8 | 1361.4 | 1356.7 | 1370.9 | 1369.4 |
| 17.5°  | 1334.5 | 1339.2 | 1337.6 | 1351.9 | 1350.3 |
| 20°    | 1307.5 | 1312.2 | 1313.8 | 1329.7 | 1329.7 |
| 22.5°  | 1277.3 | 1283.7 | 1286.8 | 1302.7 | 1305.9 |
| 25°    | 1244.0 | 1253.5 | 1258.3 | 1275.7 | 1277.3 |
| 27.5°  | 1207.5 | 1221.8 | 1228.1 | 1244.0 | 1245.6 |
| 30°    | 1171.0 | 1183.7 | 1194.8 | 1212.3 | 1215.4 |
| 32.5°  | 1131.3 | 1147.2 | 1159.9 | 1180.5 | 1183.7 |
| 35°    | 1088.5 | 1107.5 | 1123.4 | 1145.6 | 1150.4 |
| 37.5°  | 1045.7 | 1067.9 | 1086.9 | 1109.1 | 1113.9 |
| 40°    | 1004.4 | 1025.0 | 1047.2 | 1071.1 | 1077.4 |
| 42.5°  | 956.8  | 980.6  | 1007.6 | 1034.6 | 1039.3 |
| 45°    | 907.6  | 937.8  | 967.9  | 994.9  | 1002.8 |
| 47.5°  | 861.6  | 891.7  | 926.7  | 953.6  | 963.2  |
| 50°    | 810.8  | 845.7  | 880.6  | 912.4  | 921.9  |
| 52.5°  | 760.0  | 795.0  | 836.2  | 867.9  | 877.5  |
| 55°    | 710.9  | 744.2  | 791.8  | 823.5  | 833.0  |
| 57.5°  | 655.3  | 696.6  | 742.6  | 780.7  | 788.6  |
| 60°    | 601.4  | 642.6  | 695.0  | 731.5  | 744.2  |
| 62.5°  | 549.0  | 595.0  | 647.4  | 683.9  | 696.6  |
| 65°    | 491.9  | 542.7  | 596.6  | 636.3  | 649.0  |
| 67.5°  | 437.9  | 491.9  | 549.0  | 588.7  | 601.4  |
| 70°    | 382.4  | 436.4  | 496.7  | 539.5  | 550.6  |
| 72.5°  | 328.5  | 384.0  | 449.0  | 490.3  | 503.0  |
| 75°    | 272.9  | 331.6  | 398.3  | 442.7  | 457.0  |
| 77.5°  | 220.6  | 282.4  | 352.3  | 396.7  | 412.6  |
| 80°    | 173.0  | 236.4  | 306.2  | 353.8  | 366.5  |
| 82.5°  | 125.4  | 192.0  | 261.8  | 311.0  | 325.3  |
| 85°    | 84.1   | 150.7  | 222.1  | 269.7  | 285.6  |
| 87.5°  | 52.4   | 117.4  | 187.2  | 233.3  | 247.5  |
| 90°    | 29.3   | 106.9  | 185.4  | 239.1  | 254.4  |
| 92.5°  | 57.2   | 129.5  | 204.2  | 252.5  | 266.4  |
| 95°    | 97.8   | 161.7  | 235.8  | 282.5  | 296.8  |
| 97.5°  | 142.5  | 198.9  | 274.2  | 320.6  | 334.8  |
| 100°   | 197.6  | 243.9  | 317.4  | 362.8  | 373.9  |
| 102.5° | 256.7  | 292.9  | 363.5  | 408.6  | 422.6  |
| 105°   | 314.0  | 347.0  | 410.8  | 454.4  | 470.9  |
| 107.5° | 377.0  | 405.3  | 462.1  | 506.9  | 516.7  |
| 110°   | 439.7  | 464.5  | 518.7  | 552.6  | 569.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 505.0  | 524.0  | 573.8  | 608.7  | 621.4  |
| 115°   | 570.3  | 584.6  | 632.8  | 666.4  | 676.2  |
| 117.5° | 633.3  | 642.8  | 689.1  | 718.7  | 727.5  |
| 120°   | 694.7  | 704.7  | 746.8  | 772.1  | 787.4  |
| 122.5° | 760.3  | 761.6  | 803.2  | 831.1  | 835.7  |
| 125°   | 823.1  | 821.6  | 859.9  | 887.5  | 894.4  |
| 127.5° | 880.9  | 883.3  | 912.4  | 938.4  | 948.3  |
| 130°   | 941.2  | 943.4  | 968.8  | 994.8  | 999.1  |
| 132.5° | 1004.2 | 1005.2 | 1022.9 | 1047.3 | 1055.5 |
| 135°   | 1056.6 | 1064.3 | 1075.4 | 1098.3 | 1103.9 |
| 137.5° | 1117.1 | 1119.3 | 1128.2 | 1148.1 | 1157.4 |
| 140°   | 1177.5 | 1178.5 | 1180.1 | 1199.4 | 1206.0 |
| 142.5° | 1231.2 | 1233.8 | 1230.9 | 1248.4 | 1254.7 |
| 145°   | 1281.4 | 1284.9 | 1286.2 | 1294.4 | 1297.0 |
| 147.5° | 1332.8 | 1337.7 | 1336.4 | 1336.7 | 1341.7 |
| 150°   | 1379.1 | 1382.7 | 1382.7 | 1382.7 | 1381.4 |
| 152.5° | 1421.3 | 1423.8 | 1425.1 | 1429.0 | 1425.1 |
| 155°   | 1466.3 | 1466.3 | 1465.0 | 1470.2 | 1465.0 |
| 157.5° | 1504.9 | 1502.3 | 1502.3 | 1506.2 | 1502.3 |
| 160°   | 1538.3 | 1537.0 | 1535.7 | 1539.6 | 1533.2 |
| 162.5° | 1569.2 | 1565.3 | 1564.0 | 1571.8 | 1565.3 |
| 165°   | 1596.2 | 1592.3 | 1589.8 | 1597.5 | 1592.3 |
| 167.5° | 1618.1 | 1612.9 | 1612.9 | 1620.6 | 1612.9 |
| 170°   | 1636.1 | 1629.6 | 1630.9 | 1638.6 | 1629.6 |
| 172.5° | 1648.9 | 1643.8 | 1643.8 | 1652.8 | 1643.8 |
| 175°   | 1660.5 | 1654.1 | 1652.8 | 1661.8 | 1652.8 |
| 177.5° | 1665.7 | 1659.2 | 1659.2 | 1668.2 | 1657.9 |
| 180°   | 1663.1 | 1663.1 | 1663.1 | 1663.1 | 1663.1 |

(END OF REPORT)