

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: P1033929

Luminaire Tested: S124RDIW-B1195D1050UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033929  
REPORT IS A COMBINATION OF REPORTS P1000063 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B1195D1050UB30-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589}  
{m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

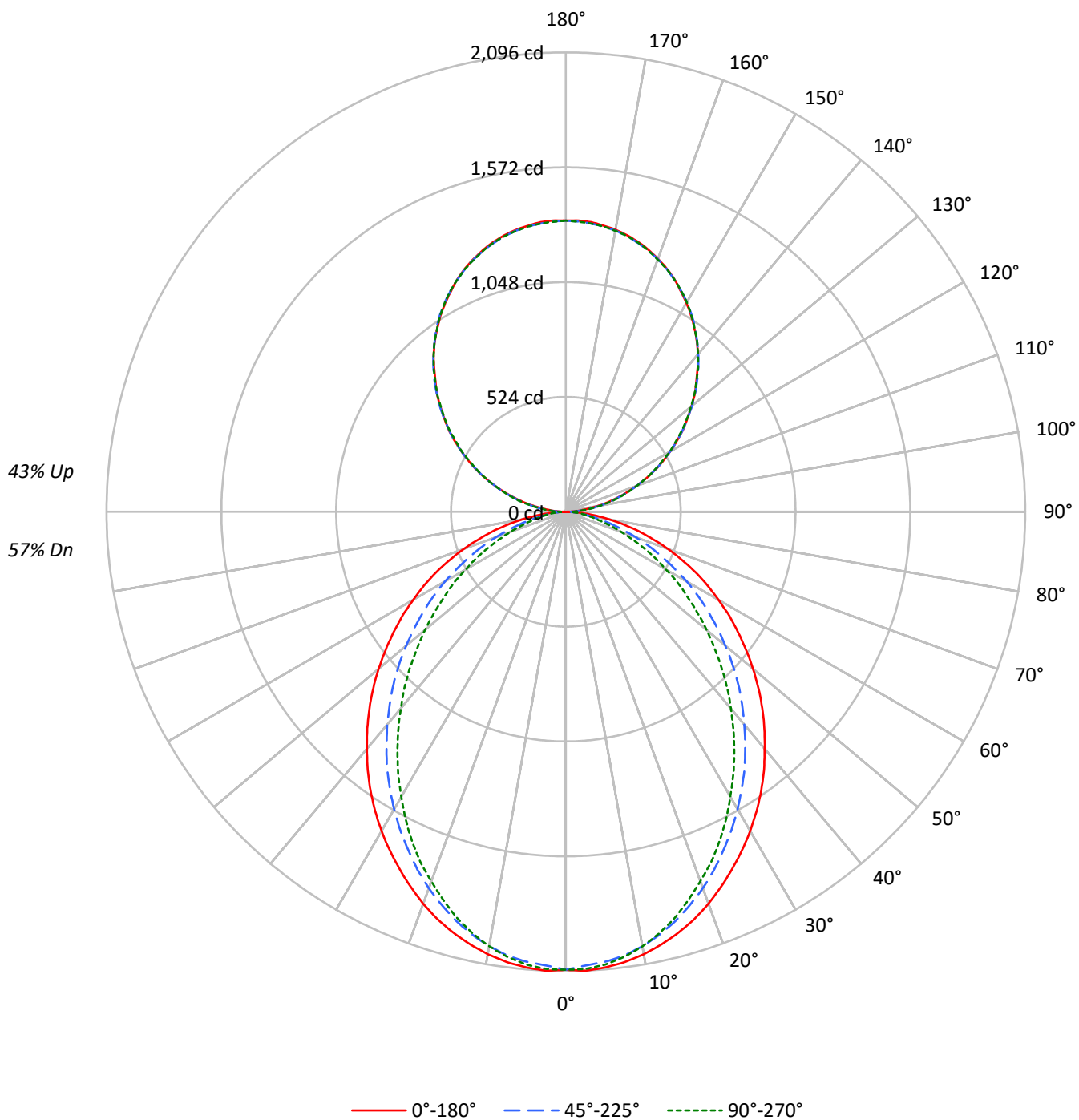
Lumens per Lamp: N/A  
Luminaire Lumens: 8518.0 lumens  
Efficiency: N/A  
Efficacy: 91.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 92.8  
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   | 100 | 95  | 92  | 88  | 93  | 89  | 86  | 83  | 77 | 74 | 72 | 66 | 64 | 62 | 56 | 54 | 53 |
| 2   | 91  | 84  | 78  | 72  | 84  | 78  | 73  | 68  | 68 | 64 | 60 | 58 | 55 | 53 | 49 | 47 | 45 |
| 3   | 83  | 74  | 67  | 61  | 77  | 69  | 63  | 57  | 60 | 55 | 51 | 52 | 48 | 45 | 44 | 41 | 39 |
| 4   | 76  | 65  | 58  | 52  | 71  | 61  | 54  | 49  | 53 | 48 | 44 | 46 | 42 | 39 | 39 | 36 | 34 |
| 5   | 70  | 59  | 50  | 44  | 65  | 55  | 48  | 42  | 48 | 42 | 38 | 42 | 37 | 34 | 36 | 32 | 30 |
| 6   | 65  | 53  | 45  | 39  | 60  | 49  | 42  | 37  | 43 | 38 | 33 | 38 | 33 | 30 | 32 | 29 | 26 |
| 7   | 60  | 48  | 40  | 34  | 56  | 45  | 38  | 33  | 39 | 34 | 29 | 34 | 30 | 26 | 30 | 26 | 23 |
| 8   | 56  | 43  | 36  | 30  | 52  | 41  | 34  | 29  | 36 | 30 | 26 | 32 | 27 | 24 | 27 | 24 | 21 |
| 9   | 52  | 40  | 32  | 27  | 48  | 37  | 31  | 26  | 33 | 28 | 24 | 29 | 25 | 21 | 25 | 22 | 19 |
| 10  | 49  | 36  | 29  | 24  | 45  | 34  | 28  | 23  | 31 | 25 | 21 | 27 | 22 | 19 | 23 | 20 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17042 | 17042 | 17042 |
| 5°  | 17044 | 16536 | 16538 |
| 10° | 16899 | 16014 | 15824 |
| 15° | 16667 | 15365 | 14981 |
| 20° | 16362 | 14624 | 14021 |
| 25° | 15983 | 13825 | 13083 |
| 30° | 15611 | 13009 | 12029 |
| 35° | 15202 | 12183 | 11000 |
| 40° | 14716 | 11293 | 9942  |
| 45° | 14259 | 10411 | 8895  |
| 50° | 13741 | 9447  | 7830  |
| 55° | 13180 | 8459  | 6733  |
| 60° | 12557 | 7410  | 5648  |
| 65° | 11957 | 6207  | 4604  |
| 70° | 11104 | 4941  | 3518  |
| 75° | 10008 | 3594  | 2460  |
| 80° | 8357  | 2207  | 1769  |
| 85° | 6287  | 1271  | 973   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14259 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 196.5  | 2.3       |
| 10°-20°   | 547.9  | 6.4       |
| 20°-30°   | 791.1  | 9.3       |
| 30°-40°   | 896.6  | 10.5      |
| 40°-50°   | 865.7  | 10.2      |
| 50°-60°   | 719.7  | 8.4       |
| 60°-70°   | 496.8  | 5.8       |
| 70°-80°   | 251.0  | 2.9       |
| 80°-90°   | 66.6   | 0.8       |
| 90°-100°  | 86.6   | 1.0       |
| 100°-110° | 259.4  | 3.0       |
| 110°-120° | 440.6  | 5.2       |
| 120°-130° | 581.1  | 6.8       |
| 130°-140° | 652.7  | 7.7       |
| 140°-150° | 641.5  | 7.5       |
| 150°-160° | 539.5  | 6.3       |
| 160°-170° | 359.0  | 4.2       |
| 170°-180° | 125.7  | 1.5       |
| 0°-30°    | 1535.6 | 18.0      |
| 0°-40°    | 2432.1 | 28.6      |
| 0°-60°    | 4017.5 | 47.2      |
| 0°-90°    | 4831.8 | 56.7      |
| 90°-120°  | 786.6  | 9.2       |
| 90°-150°  | 2661.9 | 31.3      |
| 90°-180°  | 3686.0 | 43.3      |
| 0°-180°   | 8518.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2090 | 2090  | 2090 | 2090  | 2090 |      |
| 5°   | 2087 | 2080  | 2061 | 2077  | 2074 | 198  |
| 15°  | 1988 | 1973  | 1933 | 1930  | 1919 | 560  |
| 25°  | 1797 | 1768  | 1703 | 1676  | 1660 | 828  |
| 35°  | 1554 | 1503  | 1423 | 1368  | 1339 | 971  |
| 45°  | 1267 | 1208  | 1112 | 1034  | 1005 | 977  |
| 55°  | 960  | 896   | 792  | 709   | 678  | 859  |
| 65°  | 653  | 584   | 482  | 413   | 394  | 645  |
| 75°  | 347  | 288   | 213  | 176   | 166  | 366  |
| 85°  | 86   | 54    | 50   | 46    | 46   | 95   |
| 90°  | 3    | 14    | 23   | 29    | 31   | 10   |
| 95°  | 62   | 71    | 78   | 81    | 81   | 67   |
| 105° | 239  | 240   | 244  | 248   | 251  | 254  |
| 115° | 448  | 448   | 446  | 445   | 444  | 442  |
| 125° | 652  | 652   | 651  | 649   | 647  | 582  |
| 135° | 842  | 848   | 848  | 846   | 842  | 651  |
| 145° | 1022 | 1026  | 1028 | 1026  | 1023 | 640  |
| 155° | 1171 | 1171  | 1170 | 1174  | 1170 | 539  |
| 165° | 1275 | 1272  | 1270 | 1276  | 1272 | 360  |
| 175° | 1326 | 1321  | 1320 | 1328  | 1320 | 126  |
| 180° | 1328 | 1328  | 1328 | 1328  | 1328 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2089.9 | 2089.9 | 2089.9 | 2089.9 | 2089.9 |
| 2.5°   | 2096.3 | 2089.9 | 2072.3 | 2089.9 | 2088.3 |
| 5°     | 2086.7 | 2080.3 | 2061.1 | 2077.1 | 2073.9 |
| 7.5°   | 2072.3 | 2065.9 | 2041.9 | 2053.1 | 2048.3 |
| 10°    | 2049.9 | 2041.9 | 2013.1 | 2019.5 | 2013.1 |
| 12.5°  | 2021.1 | 2011.5 | 1976.3 | 1979.5 | 1969.9 |
| 15°    | 1987.5 | 1973.1 | 1933.1 | 1929.9 | 1918.7 |
| 17.5°  | 1949.1 | 1928.3 | 1881.9 | 1873.9 | 1857.9 |
| 20°    | 1902.7 | 1881.9 | 1827.5 | 1814.7 | 1793.9 |
| 22.5°  | 1851.5 | 1827.5 | 1768.3 | 1747.5 | 1731.5 |
| 25°    | 1797.1 | 1768.3 | 1702.7 | 1675.5 | 1659.5 |
| 27.5°  | 1741.1 | 1705.9 | 1637.1 | 1605.1 | 1582.6 |
| 30°    | 1681.9 | 1641.9 | 1566.6 | 1526.6 | 1501.0 |
| 32.5°  | 1619.5 | 1573.0 | 1494.6 | 1446.6 | 1422.6 |
| 35°    | 1553.8 | 1502.6 | 1422.6 | 1368.2 | 1339.4 |
| 37.5°  | 1485.0 | 1432.2 | 1344.2 | 1285.0 | 1256.2 |
| 40°    | 1411.4 | 1358.6 | 1267.4 | 1200.2 | 1171.4 |
| 42.5°  | 1341.0 | 1285.0 | 1189.0 | 1120.2 | 1089.8 |
| 45°    | 1267.4 | 1208.2 | 1112.2 | 1033.8 | 1005.0 |
| 47.5°  | 1192.2 | 1131.4 | 1032.2 | 950.5  | 918.5  |
| 50°    | 1115.4 | 1053.0 | 950.5  | 870.5  | 840.1  |
| 52.5°  | 1037.0 | 976.2  | 870.5  | 788.9  | 756.9  |
| 55°    | 960.2  | 896.1  | 792.1  | 708.9  | 678.5  |
| 57.5°  | 884.9  | 817.7  | 715.3  | 630.5  | 608.1  |
| 60°    | 803.3  | 739.3  | 636.9  | 553.7  | 528.1  |
| 62.5°  | 729.7  | 662.5  | 556.9  | 481.7  | 462.5  |
| 65°    | 652.9  | 584.1  | 481.7  | 412.9  | 393.7  |
| 67.5°  | 572.9  | 507.3  | 411.3  | 350.5  | 328.1  |
| 70°    | 497.7  | 430.5  | 339.3  | 286.4  | 270.4  |
| 72.5°  | 417.7  | 358.5  | 273.6  | 230.4  | 216.0  |
| 75°    | 347.3  | 288.0  | 212.8  | 176.0  | 166.4  |
| 77.5°  | 273.6  | 222.4  | 158.4  | 132.8  | 129.6  |
| 80°    | 203.2  | 156.8  | 108.8  | 104.0  | 102.4  |
| 82.5°  | 142.4  | 100.8  | 78.4   | 75.2   | 73.6   |
| 85°    | 86.4   | 54.4   | 49.6   | 46.4   | 46.4   |
| 87.5°  | 36.8   | 24.0   | 22.4   | 20.8   | 22.4   |
| 90°    | 3.1    | 14.4   | 22.6   | 28.8   | 30.8   |
| 92.5°  | 26.7   | 40.1   | 45.2   | 48.3   | 49.3   |
| 95°    | 61.6   | 70.9   | 78.1   | 81.2   | 81.2   |
| 97.5°  | 98.6   | 106.9  | 115.1  | 119.2  | 119.2  |
| 100°   | 143.8  | 148.0  | 157.2  | 159.3  | 159.3  |
| 102.5° | 191.1  | 192.1  | 200.4  | 203.4  | 204.5  |
| 105°   | 239.4  | 240.4  | 244.5  | 247.6  | 250.7  |
| 107.5° | 289.7  | 290.8  | 291.8  | 295.9  | 294.9  |
| 110°   | 341.1  | 343.2  | 342.1  | 340.1  | 343.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 394.5  | 394.5  | 392.5  | 392.5  | 392.5  |
| 115°   | 448.0  | 448.0  | 445.9  | 444.9  | 443.9  |
| 117.5° | 498.3  | 498.3  | 497.3  | 494.2  | 491.1  |
| 120°   | 548.7  | 552.8  | 549.7  | 544.6  | 546.6  |
| 122.5° | 601.1  | 602.1  | 601.1  | 598.0  | 592.9  |
| 125°   | 652.4  | 652.4  | 651.4  | 649.4  | 647.3  |
| 127.5° | 698.7  | 701.8  | 699.7  | 697.7  | 696.6  |
| 130°   | 748.0  | 751.1  | 751.1  | 749.0  | 744.9  |
| 132.5° | 798.3  | 800.4  | 799.4  | 797.3  | 796.3  |
| 135°   | 841.5  | 847.7  | 847.7  | 845.6  | 842.5  |
| 137.5° | 889.8  | 892.9  | 894.9  | 891.8  | 892.9  |
| 140°   | 938.1  | 940.1  | 940.1  | 939.1  | 938.1  |
| 142.5° | 982.3  | 984.3  | 983.3  | 983.3  | 983.3  |
| 145°   | 1022.3 | 1026.4 | 1027.5 | 1026.4 | 1023.4 |
| 147.5° | 1063.4 | 1068.6 | 1067.5 | 1066.5 | 1065.5 |
| 150°   | 1100.4 | 1104.5 | 1104.5 | 1104.5 | 1103.5 |
| 152.5° | 1135.4 | 1137.4 | 1138.4 | 1141.5 | 1138.4 |
| 155°   | 1171.3 | 1171.3 | 1170.3 | 1174.4 | 1170.3 |
| 157.5° | 1202.1 | 1200.1 | 1200.1 | 1203.2 | 1200.1 |
| 160°   | 1228.9 | 1227.8 | 1226.8 | 1229.9 | 1224.7 |
| 162.5° | 1253.5 | 1250.4 | 1249.4 | 1255.6 | 1250.4 |
| 165°   | 1275.1 | 1272.0 | 1270.0 | 1276.1 | 1272.0 |
| 167.5° | 1292.6 | 1288.5 | 1288.5 | 1294.6 | 1288.5 |
| 170°   | 1306.9 | 1301.8 | 1302.8 | 1309.0 | 1301.8 |
| 172.5° | 1317.2 | 1313.1 | 1313.1 | 1320.3 | 1313.1 |
| 175°   | 1326.5 | 1321.3 | 1320.3 | 1327.5 | 1320.3 |
| 177.5° | 1330.6 | 1325.4 | 1325.4 | 1332.6 | 1324.4 |
| 180°   | 1328.5 | 1328.5 | 1328.5 | 1328.5 | 1328.5 |

(END OF REPORT)