

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: P1033949

Luminaire Tested: S124RDIW-B1195D1340UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033949  
REPORT IS A COMBINATION OF REPORTS P1000107 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B1195D1340UB30-4F0-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**

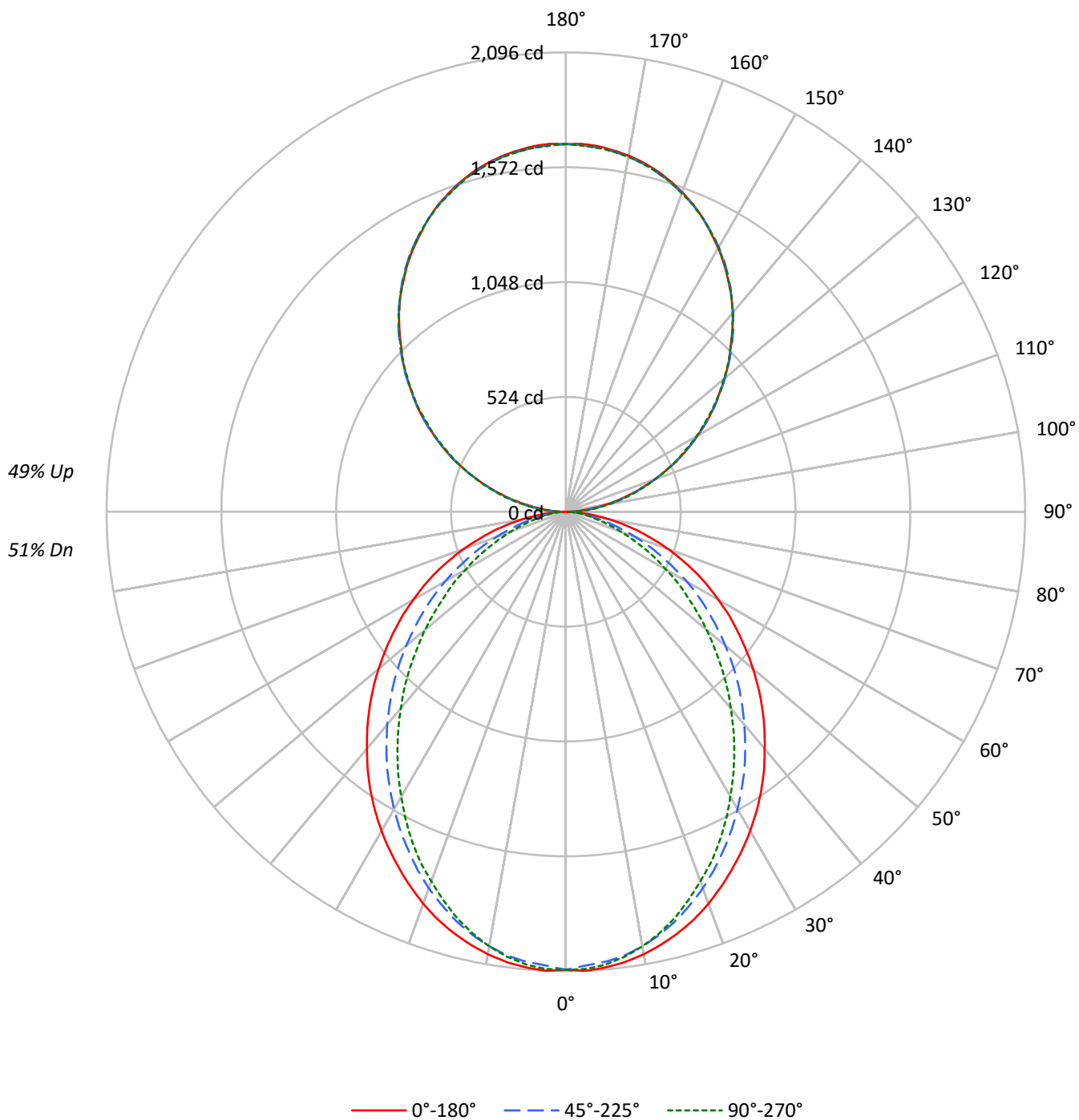
Lumens per Lamp: N/A  
Luminaire Lumens: 9487.0 lumens  
Efficiency: N/A  
Efficacy: 91.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 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 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 70 | 70 | 70 | 57 | 57 | 57 |
| 1   | 98  | 94  | 90  | 87  | 91 | 87 | 84 | 81 | 74 | 72 | 69 | 62 | 60 | 59 | 51 | 50 | 49 |
| 2   | 90  | 82  | 76  | 71  | 83 | 76 | 71 | 67 | 65 | 61 | 58 | 55 | 52 | 49 | 45 | 43 | 41 |
| 3   | 82  | 73  | 65  | 60  | 75 | 67 | 61 | 56 | 58 | 53 | 49 | 49 | 45 | 42 | 40 | 38 | 36 |
| 4   | 75  | 64  | 57  | 51  | 69 | 60 | 53 | 48 | 51 | 46 | 42 | 43 | 39 | 36 | 36 | 33 | 31 |
| 5   | 69  | 58  | 50  | 44  | 64 | 54 | 46 | 41 | 46 | 41 | 36 | 39 | 35 | 32 | 33 | 29 | 27 |
| 6   | 64  | 52  | 44  | 38  | 59 | 48 | 41 | 36 | 42 | 36 | 32 | 35 | 31 | 28 | 30 | 26 | 24 |
| 7   | 59  | 47  | 39  | 33  | 54 | 44 | 37 | 32 | 38 | 32 | 28 | 32 | 28 | 25 | 27 | 24 | 21 |
| 8   | 55  | 43  | 35  | 30  | 51 | 40 | 33 | 28 | 35 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 |
| 9   | 51  | 39  | 31  | 26  | 47 | 36 | 30 | 25 | 32 | 26 | 22 | 27 | 23 | 20 | 23 | 20 | 17 |
| 10  | 48  | 36  | 29  | 24  | 44 | 33 | 27 | 23 | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 16 |

**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  | 2.1       |
| 10°-20°   | 547.9  | 5.8       |
| 20°-30°   | 791.1  | 8.3       |
| 30°-40°   | 896.6  | 9.5       |
| 40°-50°   | 865.7  | 9.1       |
| 50°-60°   | 719.7  | 7.6       |
| 60°-70°   | 496.8  | 5.2       |
| 70°-80°   | 251.0  | 2.6       |
| 80°-90°   | 67.3   | 0.7       |
| 90°-100°  | 109.3  | 1.2       |
| 100°-110° | 327.5  | 3.5       |
| 110°-120° | 556.4  | 5.9       |
| 120°-130° | 733.8  | 7.7       |
| 130°-140° | 824.1  | 8.7       |
| 140°-150° | 810.0  | 8.5       |
| 150°-160° | 681.3  | 7.2       |
| 160°-170° | 453.3  | 4.8       |
| 170°-180° | 158.7  | 1.7       |
| 0°-30°    | 1535.6 | 16.2      |
| 0°-40°    | 2432.1 | 25.6      |
| 0°-60°    | 4017.5 | 42.3      |
| 0°-90°    | 4832.6 | 50.9      |
| 90°-120°  | 993.2  | 10.5      |
| 90°-150°  | 3361.1 | 35.4      |
| 90°-180°  | 4654.0 | 49.1      |
| 0°-180°   | 9487.0 | 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°  | 4    | 18    | 28   | 36    | 39   | 11   |
| 95°  | 78   | 90    | 99   | 102   | 102  | 84   |
| 105° | 302  | 304   | 309  | 313   | 317  | 321  |
| 115° | 566  | 566   | 563  | 562   | 560  | 558  |
| 125° | 824  | 824   | 822  | 820   | 817  | 734  |
| 135° | 1062 | 1070  | 1070 | 1068  | 1064 | 822  |
| 145° | 1291 | 1296  | 1297 | 1296  | 1292 | 808  |
| 155° | 1479 | 1479  | 1478 | 1483  | 1478 | 681  |
| 165° | 1610 | 1606  | 1604 | 1611  | 1606 | 454  |
| 175° | 1675 | 1668  | 1667 | 1676  | 1667 | 159  |
| 180° | 1678 | 1678  | 1678 | 1678  | 1678 |      |

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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°    | 3.9    | 18.2   | 28.5   | 36.3   | 38.9   |
| 92.5°  | 33.7   | 50.6   | 57.1   | 61.0   | 62.3   |
| 95°    | 77.8   | 89.5   | 98.6   | 102.5  | 102.5  |
| 97.5°  | 124.5  | 134.9  | 145.3  | 150.5  | 150.5  |
| 100°   | 181.6  | 186.8  | 198.5  | 201.1  | 201.1  |
| 102.5° | 241.3  | 242.6  | 253.0  | 256.9  | 258.2  |
| 105°   | 302.3  | 303.6  | 308.8  | 312.7  | 316.6  |
| 107.5° | 365.9  | 367.2  | 368.5  | 373.6  | 372.3  |
| 110°   | 430.7  | 433.3  | 432.0  | 429.4  | 433.3  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 498.2  | 498.2  | 495.6  | 495.6  | 495.6  |
| 115°   | 565.6  | 565.6  | 563.1  | 561.8  | 560.5  |
| 117.5° | 629.2  | 629.2  | 627.9  | 624.0  | 620.1  |
| 120°   | 692.8  | 698.0  | 694.1  | 687.6  | 690.2  |
| 122.5° | 759.0  | 760.3  | 759.0  | 755.1  | 748.6  |
| 125°   | 823.8  | 823.8  | 822.5  | 819.9  | 817.3  |
| 127.5° | 882.2  | 886.1  | 883.5  | 880.9  | 879.6  |
| 130°   | 944.5  | 948.4  | 948.4  | 945.8  | 940.6  |
| 132.5° | 1008.0 | 1010.6 | 1009.3 | 1006.8 | 1005.5 |
| 135°   | 1062.5 | 1070.3 | 1070.3 | 1067.7 | 1063.8 |
| 137.5° | 1123.5 | 1127.4 | 1130.0 | 1126.1 | 1127.4 |
| 140°   | 1184.5 | 1187.1 | 1187.1 | 1185.8 | 1184.5 |
| 142.5° | 1240.3 | 1242.9 | 1241.6 | 1241.6 | 1241.6 |
| 145°   | 1290.9 | 1296.1 | 1297.4 | 1296.1 | 1292.2 |
| 147.5° | 1342.8 | 1349.3 | 1348.0 | 1346.7 | 1345.4 |
| 150°   | 1389.5 | 1394.7 | 1394.7 | 1394.7 | 1393.4 |
| 152.5° | 1433.6 | 1436.2 | 1437.5 | 1441.4 | 1437.5 |
| 155°   | 1479.0 | 1479.0 | 1477.7 | 1482.9 | 1477.7 |
| 157.5° | 1517.9 | 1515.3 | 1515.3 | 1519.2 | 1515.3 |
| 160°   | 1551.6 | 1550.3 | 1549.0 | 1552.9 | 1546.5 |
| 162.5° | 1582.8 | 1578.9 | 1577.6 | 1585.4 | 1578.9 |
| 165°   | 1610.0 | 1606.1 | 1603.5 | 1611.3 | 1606.1 |
| 167.5° | 1632.1 | 1626.9 | 1626.9 | 1634.7 | 1626.9 |
| 170°   | 1650.2 | 1643.8 | 1645.1 | 1652.8 | 1643.8 |
| 172.5° | 1663.2 | 1658.0 | 1658.0 | 1667.1 | 1658.0 |
| 175°   | 1674.9 | 1668.4 | 1667.1 | 1676.2 | 1667.1 |
| 177.5° | 1680.1 | 1673.6 | 1673.6 | 1682.7 | 1672.3 |
| 180°   | 1677.5 | 1677.5 | 1677.5 | 1677.5 | 1677.5 |

(END OF REPORT)