

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: P1032224

Luminaire Tested: S123RDIW-B340D1535UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032224  
REPORT IS A COMBINATION OF REPORTS P994276 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-B340D1535UB35-4F0-XX-W2A-F  
Description: Define 3 Regressed Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

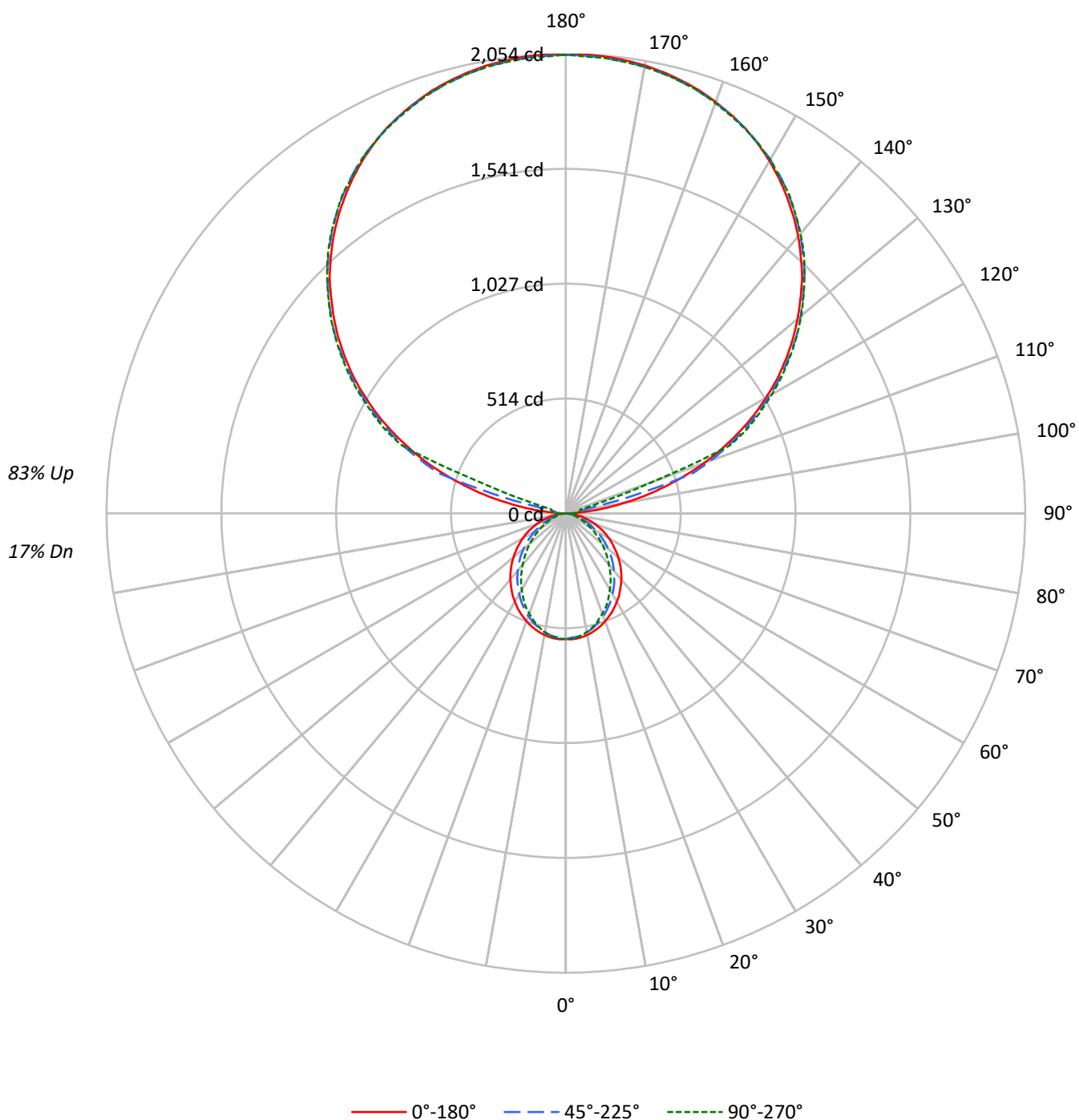
Lumens per Lamp: N/A  
Luminaire Lumens: 7524.0 lumens  
Efficiency: N/A  
Efficacy: 115.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 65.2  
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   | 99 | 99 | 99 | 99 | 87 | 87 | 87 | 87 | 65 | 65 | 65 | 45 | 45 | 45 | 26 | 26 | 26 |
| 1   | 90 | 86 | 83 | 79 | 79 | 76 | 73 | 70 | 57 | 55 | 53 | 39 | 38 | 37 | 23 | 22 | 22 |
| 2   | 82 | 75 | 70 | 65 | 72 | 67 | 62 | 58 | 50 | 47 | 44 | 34 | 33 | 31 | 20 | 19 | 19 |
| 3   | 75 | 66 | 60 | 54 | 66 | 59 | 53 | 48 | 44 | 40 | 37 | 31 | 28 | 26 | 18 | 17 | 16 |
| 4   | 69 | 59 | 51 | 46 | 60 | 52 | 46 | 41 | 39 | 35 | 32 | 27 | 25 | 23 | 16 | 15 | 14 |
| 5   | 63 | 52 | 44 | 39 | 55 | 46 | 40 | 35 | 35 | 30 | 27 | 24 | 22 | 19 | 14 | 13 | 12 |
| 6   | 58 | 46 | 39 | 33 | 51 | 41 | 35 | 30 | 31 | 27 | 23 | 22 | 19 | 17 | 13 | 12 | 11 |
| 7   | 53 | 42 | 34 | 29 | 47 | 37 | 31 | 26 | 28 | 24 | 20 | 20 | 17 | 15 | 12 | 10 | 9  |
| 8   | 49 | 38 | 30 | 25 | 43 | 34 | 27 | 23 | 26 | 21 | 18 | 18 | 15 | 13 | 11 | 9  | 8  |
| 9   | 46 | 34 | 27 | 22 | 40 | 30 | 24 | 20 | 23 | 19 | 16 | 17 | 14 | 12 | 10 | 9  | 7  |
| 10  | 43 | 31 | 24 | 20 | 37 | 28 | 22 | 18 | 21 | 17 | 14 | 15 | 12 | 10 | 9  | 8  | 7  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6046 | 6046 | 6046 |
| 5°  | 6056 | 5833 | 5817 |
| 10° | 6008 | 5613 | 5502 |
| 15° | 5930 | 5342 | 5158 |
| 20° | 5828 | 5047 | 4774 |
| 25° | 5723 | 4741 | 4409 |
| 30° | 5587 | 4415 | 3979 |
| 35° | 5449 | 4095 | 3587 |
| 40° | 5316 | 3747 | 3154 |
| 45° | 5149 | 3407 | 2764 |
| 50° | 4963 | 3044 | 2361 |
| 55° | 4771 | 2656 | 1991 |
| 60° | 4587 | 2257 | 1616 |
| 65° | 4349 | 1849 | 1261 |
| 70° | 4052 | 1398 | 901  |
| 75° | 3621 | 947  | 714  |
| 80° | 3089 | 658  | 501  |
| 85° | 2315 | 356  | 262  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5149 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 52.8   | 0.7       |
| 10°-20°   | 146.9  | 2.0       |
| 20°-30°   | 211.5  | 2.8       |
| 30°-40°   | 238.2  | 3.2       |
| 40°-50°   | 227.8  | 3.0       |
| 50°-60°   | 186.5  | 2.5       |
| 60°-70°   | 125.7  | 1.7       |
| 70°-80°   | 63.1   | 0.8       |
| 80°-90°   | 20.6   | 0.3       |
| 90°-100°  | 72.3   | 1.0       |
| 100°-110° | 349.6  | 4.6       |
| 110°-120° | 856.7  | 11.4      |
| 120°-130° | 1087.5 | 14.5      |
| 130°-140° | 1161.8 | 15.4      |
| 140°-150° | 1086.4 | 14.4      |
| 150°-160° | 876.3  | 11.6      |
| 160°-170° | 565.5  | 7.5       |
| 170°-180° | 194.9  | 2.6       |
| 0°-30°    | 411.2  | 5.5       |
| 0°-40°    | 649.4  | 8.6       |
| 0°-60°    | 1063.7 | 14.1      |
| 0°-90°    | 1273.1 | 16.9      |
| 90°-120°  | 1278.6 | 17.0      |
| 90°-150°  | 4614.2 | 61.3      |
| 90°-180°  | 6251.0 | 83.1      |
| 0°-180°   | 7524.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 562  | 562   | 562  | 562   | 562  |      |
| 5°   | 562  | 559   | 554  | 558   | 557  | 53   |
| 15°  | 536  | 531   | 518  | 516   | 512  | 151  |
| 25°  | 488  | 476   | 455  | 446   | 440  | 224  |
| 35°  | 422  | 406   | 377  | 358   | 349  | 264  |
| 45°  | 347  | 326   | 291  | 265   | 254  | 268  |
| 55°  | 263  | 241   | 202  | 176   | 167  | 236  |
| 65°  | 180  | 155   | 119  | 97    | 92   | 178  |
| 75°  | 95   | 73    | 48   | 44    | 43   | 101  |
| 85°  | 24   | 14    | 13   | 12    | 12   | 26   |
| 90°  | 2    | 17    | 37   | 43    | 46   | 7    |
| 95°  | 93   | 30    | 47   | 58    | 58   | 111  |
| 105° | 454  | 471   | 334  | 64    | 67   | 481  |
| 115° | 852  | 861   | 874  | 890   | 896  | 841  |
| 125° | 1200 | 1213  | 1219 | 1222  | 1225 | 1073 |
| 135° | 1494 | 1504  | 1510 | 1514  | 1510 | 1151 |
| 145° | 1724 | 1735  | 1738 | 1741  | 1741 | 1080 |
| 155° | 1900 | 1897  | 1898 | 1906  | 1897 | 875  |
| 165° | 2003 | 1999  | 1997 | 2009  | 1999 | 566  |
| 175° | 2050 | 2043  | 2044 | 2055  | 2043 | 195  |
| 180° | 2050 | 2050  | 2050 | 2050  | 2050 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 561.7 | 561.7 | 561.7 | 561.7 | 561.7 |
| 2.5°   | 564.0 | 562.2 | 556.7 | 561.7 | 560.8 |
| 5°     | 561.7 | 559.4 | 554.0 | 558.1 | 557.2 |
| 7.5°   | 557.6 | 555.3 | 548.5 | 551.2 | 549.9 |
| 10°    | 552.1 | 549.0 | 540.8 | 541.2 | 538.9 |
| 12.5°  | 544.4 | 540.8 | 530.3 | 529.8 | 527.1 |
| 15°    | 535.7 | 530.7 | 518.0 | 515.7 | 512.5 |
| 17.5°  | 525.3 | 519.8 | 503.9 | 499.3 | 494.7 |
| 20°    | 513.4 | 506.1 | 488.8 | 482.9 | 477.4 |
| 22.5°  | 500.2 | 491.6 | 472.9 | 465.1 | 460.1 |
| 25°    | 487.5 | 476.1 | 455.1 | 445.5 | 440.5 |
| 27.5°  | 472.0 | 459.7 | 436.9 | 424.1 | 416.4 |
| 30°    | 456.0 | 442.4 | 416.8 | 401.4 | 394.1 |
| 32.5°  | 440.1 | 424.1 | 396.8 | 379.5 | 371.7 |
| 35°    | 421.9 | 405.5 | 377.2 | 357.6 | 349.4 |
| 37.5°  | 403.6 | 385.9 | 356.3 | 334.4 | 324.4 |
| 40°    | 386.3 | 366.3 | 333.9 | 310.2 | 299.8 |
| 42.5°  | 366.7 | 346.7 | 313.0 | 286.5 | 277.4 |
| 45°    | 346.7 | 326.2 | 291.1 | 265.1 | 254.2 |
| 47.5°  | 327.1 | 304.3 | 269.7 | 241.4 | 231.9 |
| 50°    | 305.2 | 283.8 | 246.9 | 218.7 | 208.2 |
| 52.5°  | 285.6 | 261.9 | 225.5 | 195.9 | 186.8 |
| 55°    | 263.3 | 241.0 | 202.3 | 175.8 | 166.7 |
| 57.5°  | 243.3 | 219.1 | 179.9 | 154.9 | 147.1 |
| 60°    | 222.3 | 197.3 | 159.4 | 134.8 | 127.1 |
| 62.5°  | 201.4 | 176.3 | 138.5 | 115.7 | 107.5 |
| 65°    | 179.9 | 154.9 | 119.4 | 97.0  | 92.0  |
| 67.5°  | 158.5 | 133.0 | 98.4  | 81.5  | 76.1  |
| 70°    | 137.6 | 113.0 | 81.1  | 65.1  | 60.1  |
| 72.5°  | 116.6 | 92.5  | 64.2  | 51.9  | 50.6  |
| 75°    | 95.2  | 73.3  | 48.3  | 43.7  | 42.8  |
| 77.5°  | 75.6  | 55.6  | 37.8  | 35.1  | 34.2  |
| 80°    | 56.9  | 38.3  | 28.7  | 27.3  | 26.4  |
| 82.5°  | 39.2  | 23.7  | 20.5  | 19.1  | 19.1  |
| 85°    | 24.1  | 14.1  | 12.8  | 11.8  | 11.8  |
| 87.5°  | 10.9  | 5.9   | 5.9   | 5.5   | 5.0   |
| 90°    | 1.5   | 16.8  | 36.6  | 42.7  | 45.7  |
| 92.5°  | 35.0  | 25.9  | 39.6  | 50.3  | 51.8  |
| 95°    | 92.9  | 30.5  | 47.2  | 57.9  | 57.9  |
| 97.5°  | 169.1 | 126.4 | 48.7  | 60.9  | 62.5  |
| 100°   | 257.4 | 287.9 | 50.3  | 62.5  | 64.0  |
| 102.5° | 358.0 | 377.8 | 112.7 | 62.5  | 65.5  |
| 105°   | 454.0 | 470.7 | 333.6 | 64.0  | 67.0  |
| 107.5° | 556.0 | 569.7 | 592.6 | 358.0 | 158.4 |
| 110°   | 658.1 | 670.3 | 687.0 | 636.8 | 418.9 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 755.6  | 766.2  | 783.0  | 796.7  | 793.7  |
| 115°   | 851.6  | 860.7  | 874.4  | 889.6  | 895.7  |
| 117.5° | 946.0  | 956.7  | 964.3  | 976.5  | 978.0  |
| 120°   | 1032.8 | 1046.5 | 1051.1 | 1063.3 | 1063.3 |
| 122.5° | 1121.2 | 1131.8 | 1137.9 | 1145.6 | 1147.1 |
| 125°   | 1200.4 | 1212.6 | 1218.7 | 1221.7 | 1224.8 |
| 127.5° | 1279.6 | 1291.8 | 1299.4 | 1304.0 | 1300.9 |
| 130°   | 1352.7 | 1364.9 | 1371.0 | 1377.1 | 1374.1 |
| 132.5° | 1422.8 | 1435.0 | 1439.6 | 1445.7 | 1441.1 |
| 135°   | 1494.4 | 1503.5 | 1509.6 | 1514.2 | 1509.6 |
| 137.5° | 1555.3 | 1567.5 | 1570.6 | 1578.2 | 1575.1 |
| 140°   | 1616.3 | 1625.4 | 1630.0 | 1636.1 | 1633.0 |
| 142.5° | 1672.6 | 1681.8 | 1686.3 | 1690.9 | 1686.3 |
| 145°   | 1724.4 | 1735.1 | 1738.1 | 1741.2 | 1741.2 |
| 147.5° | 1774.7 | 1782.3 | 1785.4 | 1788.4 | 1780.8 |
| 150°   | 1820.4 | 1825.0 | 1828.0 | 1831.1 | 1826.5 |
| 152.5° | 1861.5 | 1863.1 | 1864.6 | 1870.7 | 1863.1 |
| 155°   | 1899.6 | 1896.6 | 1898.1 | 1905.7 | 1896.6 |
| 157.5° | 1930.1 | 1930.1 | 1928.6 | 1937.7 | 1925.5 |
| 160°   | 1957.5 | 1956.0 | 1954.5 | 1963.6 | 1952.9 |
| 162.5° | 1983.4 | 1978.8 | 1977.3 | 1988.0 | 1978.8 |
| 165°   | 2003.2 | 1998.6 | 1997.1 | 2009.3 | 1998.6 |
| 167.5° | 2020.0 | 2013.9 | 2013.9 | 2026.1 | 2013.9 |
| 170°   | 2033.7 | 2027.6 | 2027.6 | 2039.8 | 2027.6 |
| 172.5° | 2042.8 | 2035.2 | 2036.7 | 2048.9 | 2035.2 |
| 175°   | 2050.4 | 2042.8 | 2044.3 | 2055.0 | 2042.8 |
| 177.5° | 2053.5 | 2045.9 | 2047.4 | 2059.6 | 2044.3 |
| 180°   | 2050.4 | 2050.4 | 2050.4 | 2050.4 | 2050.4 |

(END OF REPORT)