

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: P1036162

Luminaire Tested: S125RDIW-B850D770UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1036162  
REPORT IS A COMBINATION OF REPORTS P1007016 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDIW-B850D770UB50-4F0-XX-W2A-F  
Description: Define 5 Regressed Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

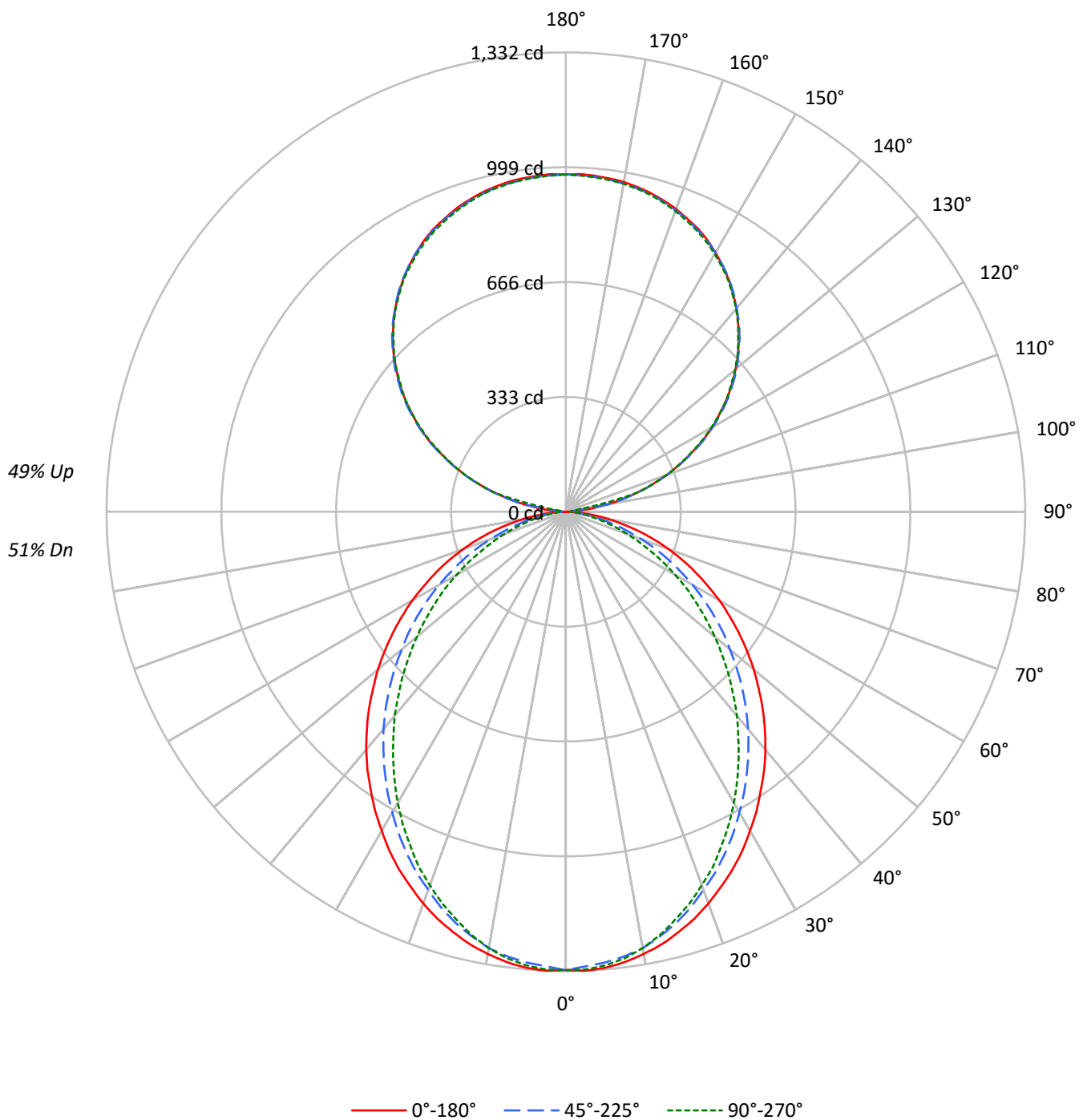
Lumens per Lamp: N/A  
Luminaire Lumens: 6145.0 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 59.1  
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 | 35 |
| 4   | 75  | 64  | 57  | 51  | 69 | 60 | 53 | 48 | 51 | 46 | 42 | 43 | 39 | 36 | 36 | 33 | 31 |
| 5   | 69  | 57  | 49  | 43  | 63 | 53 | 46 | 41 | 46 | 40 | 36 | 39 | 35 | 31 | 32 | 29 | 27 |
| 6   | 64  | 52  | 44  | 38  | 59 | 48 | 41 | 36 | 41 | 36 | 32 | 35 | 31 | 28 | 30 | 26 | 24 |
| 7   | 59  | 47  | 39  | 33  | 54 | 44 | 36 | 31 | 38 | 32 | 28 | 32 | 28 | 25 | 27 | 24 | 21 |
| 8   | 55  | 42  | 35  | 29  | 50 | 40 | 33 | 28 | 34 | 29 | 25 | 29 | 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  | 28  | 24  | 44 | 33 | 27 | 22 | 29 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 16 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8515 | 8515 | 8515 |
| 5°  | 8516 | 8303 | 8316 |
| 10° | 8433 | 8094 | 8023 |
| 15° | 8314 | 7801 | 7636 |
| 20° | 8166 | 7448 | 7231 |
| 25° | 7996 | 7104 | 6796 |
| 30° | 7789 | 6726 | 6340 |
| 35° | 7577 | 6342 | 5855 |
| 40° | 7376 | 5948 | 5381 |
| 45° | 7134 | 5521 | 4885 |
| 50° | 6889 | 5069 | 4380 |
| 55° | 6604 | 4625 | 3857 |
| 60° | 6312 | 4115 | 3315 |
| 65° | 5966 | 3546 | 2730 |
| 70° | 5560 | 2887 | 2148 |
| 75° | 4999 | 2171 | 1566 |
| 80° | 4217 | 1406 | 1057 |
| 85° | 3156 | 755  | 595  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7134 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 125.1  | 2.0       |
| 10°-20°   | 349.6  | 5.7       |
| 20°-30°   | 506.9  | 8.2       |
| 30°-40°   | 577.5  | 9.4       |
| 40°-50°   | 562.8  | 9.2       |
| 50°-60°   | 473.7  | 7.7       |
| 60°-70°   | 331.9  | 5.4       |
| 70°-80°   | 170.2  | 2.8       |
| 80°-90°   | 43.9   | 0.7       |
| 90°-100°  | 33.2   | 0.5       |
| 100°-110° | 220.7  | 3.6       |
| 110°-120° | 397.4  | 6.5       |
| 120°-130° | 510.1  | 8.3       |
| 130°-140° | 548.6  | 8.9       |
| 140°-150° | 514.9  | 8.4       |
| 150°-160° | 416.5  | 6.8       |
| 160°-170° | 269.4  | 4.4       |
| 170°-180° | 92.9   | 1.5       |
| 0°-30°    | 981.5  | 16.0      |
| 0°-40°    | 1559.0 | 25.4      |
| 0°-60°    | 2595.5 | 42.2      |
| 0°-90°    | 3141.5 | 51.1      |
| 90°-120°  | 651.2  | 10.6      |
| 90°-150°  | 2224.8 | 36.2      |
| 90°-180°  | 3004.0 | 48.9      |
| 0°-180°   | 6145.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1329 | 1329  | 1329 | 1329  | 1329 |      |
| 5°   | 1327 | 1323  | 1312 | 1322  | 1320 | 126  |
| 15°  | 1262 | 1256  | 1235 | 1234  | 1225 | 356  |
| 25°  | 1144 | 1129  | 1092 | 1079  | 1068 | 527  |
| 35°  | 986  | 962   | 916  | 887   | 873  | 617  |
| 45°  | 807  | 778   | 723  | 683   | 668  | 622  |
| 55°  | 612  | 580   | 524  | 479   | 463  | 548  |
| 65°  | 415  | 380   | 327  | 287   | 272  | 411  |
| 75°  | 221  | 191   | 149  | 126   | 120  | 233  |
| 85°  | 55   | 37    | 32   | 31    | 30   | 60   |
| 90°  | 1    | 6     | 12   | 15    | 17   | 5    |
| 95°  | 41   | 39    | 12   | 15    | 15   | 51   |
| 105° | 213  | 216   | 216  | 216   | 215  | 226  |
| 115° | 400  | 404   | 404  | 402   | 397  | 397  |
| 125° | 569  | 574   | 574  | 571   | 569  | 508  |
| 135° | 710  | 714   | 712  | 711   | 707  | 547  |
| 145° | 823  | 824   | 824  | 825   | 820  | 515  |
| 155° | 906  | 902   | 903  | 905   | 900  | 417  |
| 165° | 956  | 952   | 952  | 957   | 951  | 270  |
| 175° | 978  | 973   | 974  | 980   | 973  | 93   |
| 180° | 978  | 978   | 978  | 978   | 978  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1329.0 | 1329.0 | 1329.0 | 1329.0 | 1329.0 |
| 2.5°   | 1332.0 | 1329.0 | 1319.0 | 1329.0 | 1328.0 |
| 5°     | 1327.0 | 1323.0 | 1312.0 | 1322.0 | 1320.0 |
| 7.5°   | 1317.0 | 1313.0 | 1299.9 | 1307.9 | 1305.9 |
| 10°    | 1301.9 | 1298.9 | 1284.9 | 1287.9 | 1284.9 |
| 12.5°  | 1284.9 | 1280.8 | 1260.8 | 1262.8 | 1257.8 |
| 15°    | 1261.8 | 1255.7 | 1234.7 | 1233.7 | 1224.6 |
| 17.5°  | 1237.7 | 1228.6 | 1203.5 | 1198.5 | 1191.5 |
| 20°    | 1208.6 | 1198.5 | 1166.4 | 1161.4 | 1152.4 |
| 22.5°  | 1176.4 | 1166.4 | 1132.3 | 1121.2 | 1114.2 |
| 25°    | 1144.3 | 1129.3 | 1092.1 | 1079.1 | 1068.0 |
| 27.5°  | 1108.2 | 1090.1 | 1051.0 | 1033.9 | 1022.9 |
| 30°    | 1068.0 | 1049.0 | 1006.8 | 983.7  | 974.7  |
| 32.5°  | 1028.9 | 1005.8 | 962.6  | 936.5  | 924.5  |
| 35°    | 985.7  | 961.6  | 916.5  | 887.4  | 873.3  |
| 37.5°  | 944.6  | 915.5  | 869.3  | 835.2  | 821.1  |
| 40°    | 900.4  | 870.3  | 822.1  | 784.0  | 771.9  |
| 42.5°  | 854.2  | 823.1  | 772.9  | 736.8  | 717.7  |
| 45°    | 807.0  | 777.9  | 722.7  | 682.6  | 667.5  |
| 47.5°  | 757.9  | 727.7  | 672.5  | 631.4  | 614.3  |
| 50°    | 711.7  | 678.6  | 621.3  | 579.2  | 564.1  |
| 52.5°  | 661.5  | 627.4  | 574.2  | 528.0  | 512.9  |
| 55°    | 612.3  | 580.2  | 524.0  | 478.8  | 462.7  |
| 57.5°  | 562.1  | 528.0  | 473.8  | 429.6  | 415.6  |
| 60°    | 513.9  | 478.8  | 424.6  | 380.4  | 365.4  |
| 62.5°  | 462.7  | 429.6  | 374.4  | 334.3  | 319.2  |
| 65°    | 414.6  | 380.4  | 327.2  | 287.1  | 272.0  |
| 67.5°  | 366.4  | 332.3  | 281.1  | 242.9  | 230.9  |
| 70°    | 317.2  | 283.1  | 232.9  | 201.8  | 189.7  |
| 72.5°  | 269.0  | 235.9  | 189.7  | 161.6  | 154.6  |
| 75°    | 220.8  | 190.7  | 148.6  | 126.5  | 119.5  |
| 77.5°  | 171.6  | 147.6  | 112.4  | 95.4   | 89.3   |
| 80°    | 130.5  | 106.4  | 78.3   | 69.3   | 67.3   |
| 82.5°  | 90.3   | 69.3   | 52.2   | 49.2   | 48.2   |
| 85°    | 55.2   | 37.1   | 32.1   | 31.1   | 30.1   |
| 87.5°  | 23.1   | 16.1   | 15.1   | 15.1   | 14.1   |
| 90°    | 0.7    | 6.5    | 11.6   | 15.2   | 17.4   |
| 92.5°  | 13.8   | 7.2    | 11.6   | 15.2   | 15.9   |
| 95°    | 41.3   | 39.1   | 11.6   | 15.2   | 15.2   |
| 97.5°  | 77.6   | 81.9   | 13.0   | 14.5   | 15.2   |
| 100°   | 121.0  | 123.2  | 126.1  | 18.1   | 15.2   |
| 102.5° | 165.3  | 168.2  | 169.6  | 171.1  | 110.2  |
| 105°   | 213.1  | 216.0  | 216.0  | 216.0  | 215.3  |
| 107.5° | 262.4  | 262.4  | 263.8  | 264.6  | 261.7  |
| 110°   | 310.2  | 310.2  | 311.7  | 309.5  | 310.2  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 355.2 | 357.3 | 358.1 | 355.2 | 353.7 |
| 115°   | 400.1 | 403.7 | 404.5 | 401.6 | 397.2 |
| 117.5° | 447.2 | 447.2 | 450.1 | 445.8 | 444.3 |
| 120°   | 490.7 | 490.0 | 492.2 | 490.7 | 487.1 |
| 122.5° | 529.1 | 532.7 | 533.5 | 532.0 | 527.7 |
| 125°   | 569.0 | 574.1 | 574.1 | 571.2 | 569.0 |
| 127.5° | 607.4 | 611.0 | 610.3 | 608.9 | 603.1 |
| 130°   | 642.2 | 645.8 | 646.5 | 644.4 | 640.7 |
| 132.5° | 677.0 | 681.3 | 679.2 | 679.2 | 675.5 |
| 135°   | 709.6 | 713.9 | 712.5 | 711.1 | 706.7 |
| 137.5° | 740.0 | 744.4 | 742.9 | 742.9 | 739.3 |
| 140°   | 769.8 | 771.2 | 770.5 | 771.9 | 767.6 |
| 142.5° | 796.6 | 797.3 | 798.8 | 798.8 | 794.4 |
| 145°   | 822.7 | 824.1 | 824.1 | 824.8 | 820.5 |
| 147.5° | 845.9 | 845.9 | 846.6 | 847.3 | 842.2 |
| 150°   | 867.6 | 866.2 | 867.6 | 869.1 | 863.3 |
| 152.5° | 888.6 | 885.0 | 886.5 | 887.9 | 882.8 |
| 155°   | 906.0 | 901.7 | 903.1 | 905.3 | 899.5 |
| 157.5° | 919.8 | 917.6 | 917.6 | 919.8 | 914.0 |
| 160°   | 934.3 | 929.9 | 930.7 | 933.6 | 927.8 |
| 162.5° | 945.9 | 941.5 | 942.3 | 946.6 | 940.1 |
| 165°   | 956.0 | 951.7 | 952.4 | 956.8 | 951.0 |
| 167.5° | 964.0 | 959.7 | 960.4 | 965.5 | 958.9 |
| 170°   | 970.5 | 965.5 | 966.2 | 972.0 | 965.5 |
| 172.5° | 974.9 | 969.8 | 971.3 | 976.3 | 969.8 |
| 175°   | 977.8 | 973.4 | 974.2 | 980.0 | 973.4 |
| 177.5° | 980.0 | 975.6 | 976.3 | 981.4 | 975.6 |
| 180°   | 977.8 | 977.8 | 977.8 | 977.8 | 977.8 |

(END OF REPORT)