

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: P1026521

Luminaire Tested: S124RDIP-B575D810UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026521  
REPORT IS A COMBINATION OF REPORTS P999611 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B575D810UB40-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865}  
{m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

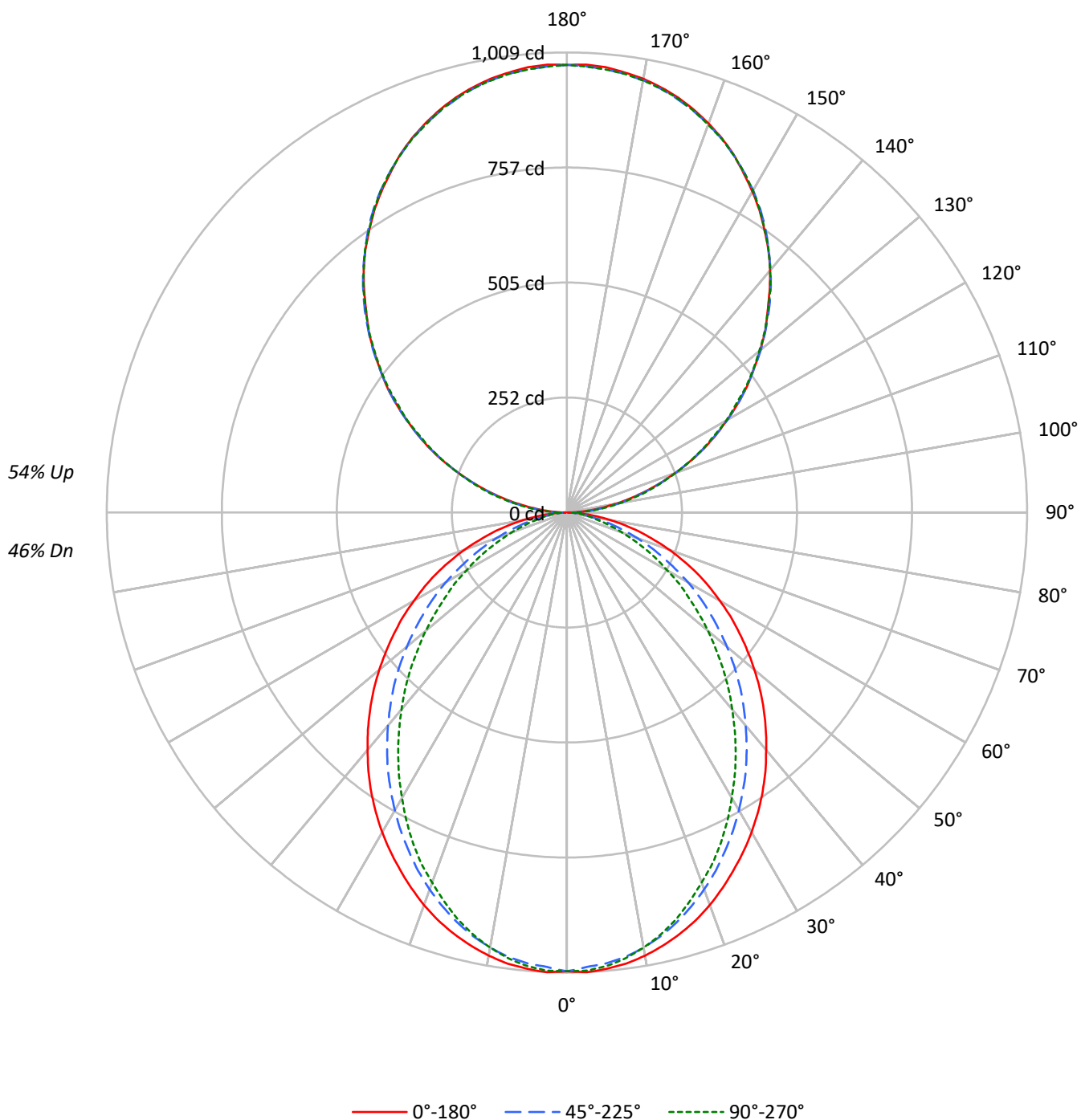
Lumens per Lamp: N/A  
Luminaire Lumens: 5051.0 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 45.1  
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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 66 | 66 | 66 | 53 | 53 | 53 |
| 1   | 97  | 93  | 89  | 86  | 89 | 85 | 82 | 79 | 71 | 69 | 67 | 59 | 57 | 56 | 47 | 46 | 45 |
| 2   | 89  | 81  | 75  | 70  | 81 | 75 | 70 | 66 | 63 | 59 | 56 | 52 | 49 | 47 | 41 | 40 | 38 |
| 3   | 81  | 72  | 65  | 59  | 74 | 66 | 60 | 55 | 56 | 51 | 47 | 46 | 43 | 40 | 37 | 35 | 33 |
| 4   | 74  | 64  | 56  | 50  | 68 | 59 | 52 | 47 | 50 | 44 | 40 | 41 | 37 | 34 | 33 | 31 | 28 |
| 5   | 68  | 57  | 49  | 43  | 62 | 53 | 46 | 40 | 44 | 39 | 35 | 37 | 33 | 30 | 30 | 27 | 25 |
| 6   | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 40 | 35 | 31 | 33 | 29 | 26 | 27 | 24 | 22 |
| 7   | 58  | 46  | 38  | 33  | 53 | 43 | 36 | 31 | 36 | 31 | 27 | 30 | 26 | 23 | 25 | 22 | 20 |
| 8   | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 |
| 9   | 50  | 38  | 31  | 26  | 46 | 36 | 29 | 24 | 30 | 25 | 22 | 26 | 22 | 19 | 21 | 18 | 16 |
| 10  | 47  | 35  | 28  | 23  | 43 | 33 | 26 | 22 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 15 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8205 | 8205 | 8205 |
| 5°  | 8206 | 7962 | 7962 |
| 10° | 8137 | 7710 | 7618 |
| 15° | 8025 | 7397 | 7213 |
| 20° | 7878 | 7041 | 6750 |
| 25° | 7695 | 6656 | 6299 |
| 30° | 7517 | 6264 | 5792 |
| 35° | 7319 | 5865 | 5296 |
| 40° | 7086 | 5437 | 4787 |
| 45° | 6865 | 5013 | 4283 |
| 50° | 6615 | 4549 | 3770 |
| 55° | 6346 | 4073 | 3242 |
| 60° | 6046 | 3567 | 2720 |
| 65° | 5758 | 2988 | 2216 |
| 70° | 5345 | 2378 | 1694 |
| 75° | 4818 | 1731 | 1184 |
| 80° | 4022 | 1063 | 852  |
| 85° | 3027 | 612  | 467  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 6865 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 94.6   | 1.9       |
| 10°-20°   | 263.8  | 5.2       |
| 20°-30°   | 380.9  | 7.5       |
| 30°-40°   | 431.7  | 8.5       |
| 40°-50°   | 416.8  | 8.3       |
| 50°-60°   | 346.5  | 6.9       |
| 60°-70°   | 239.2  | 4.7       |
| 70°-80°   | 120.8  | 2.4       |
| 80°-90°   | 32.8   | 0.6       |
| 90°-100°  | 64.0   | 1.3       |
| 100°-110° | 191.7  | 3.8       |
| 110°-120° | 325.6  | 6.4       |
| 120°-130° | 429.4  | 8.5       |
| 130°-140° | 482.3  | 9.5       |
| 140°-150° | 474.0  | 9.4       |
| 150°-160° | 398.7  | 7.9       |
| 160°-170° | 265.3  | 5.3       |
| 170°-180° | 92.9   | 1.8       |
| 0°-30°    | 739.3  | 14.6      |
| 0°-40°    | 1171.0 | 23.2      |
| 0°-60°    | 1934.3 | 38.3      |
| 0°-90°    | 2327.1 | 46.1      |
| 90°-120°  | 581.3  | 11.5      |
| 90°-150°  | 1967.0 | 38.9      |
| 90°-180°  | 2724.0 | 53.9      |
| 0°-180°   | 5051.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1006 | 1006  | 1006 | 1006  | 1006 |      |
| 5°   | 1005 | 1002  | 992  | 1000  | 998  | 95   |
| 15°  | 957  | 950   | 931  | 929   | 924  | 270  |
| 25°  | 865  | 851   | 820  | 807   | 799  | 399  |
| 35°  | 748  | 724   | 685  | 659   | 645  | 468  |
| 45°  | 610  | 582   | 536  | 498   | 484  | 471  |
| 55°  | 462  | 432   | 381  | 341   | 327  | 414  |
| 65°  | 314  | 281   | 232  | 199   | 190  | 310  |
| 75°  | 167  | 139   | 102  | 85    | 80   | 176  |
| 85°  | 42   | 26    | 24   | 22    | 22   | 46   |
| 90°  | 2    | 11    | 17   | 21    | 23   | 6    |
| 95°  | 46   | 52    | 58   | 60    | 60   | 49   |
| 105° | 177  | 178   | 181  | 183   | 185  | 188  |
| 115° | 331  | 331   | 330  | 329   | 328  | 326  |
| 125° | 482  | 482   | 481  | 480   | 478  | 430  |
| 135° | 622  | 626   | 626  | 625   | 623  | 481  |
| 145° | 756  | 758   | 759  | 758   | 756  | 473  |
| 155° | 866  | 866   | 865  | 868   | 865  | 398  |
| 165° | 942  | 940   | 938  | 943   | 940  | 266  |
| 175° | 980  | 976   | 976  | 981   | 976  | 93   |
| 180° | 982  | 982   | 982  | 982   | 982  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1006.2 | 1006.2 | 1006.2 | 1006.2 | 1006.2 |
| 2.5°   | 1009.3 | 1006.2 | 997.8  | 1006.2 | 1005.5 |
| 5°     | 1004.7 | 1001.6 | 992.4  | 1000.1 | 998.5  |
| 7.5°   | 997.8  | 994.7  | 983.1  | 988.5  | 986.2  |
| 10°    | 987.0  | 983.1  | 969.2  | 972.3  | 969.2  |
| 12.5°  | 973.1  | 968.5  | 951.5  | 953.1  | 948.4  |
| 15°    | 956.9  | 950.0  | 930.7  | 929.2  | 923.8  |
| 17.5°  | 938.4  | 928.4  | 906.1  | 902.2  | 894.5  |
| 20°    | 916.1  | 906.1  | 879.9  | 873.7  | 863.7  |
| 22.5°  | 891.4  | 879.9  | 851.4  | 841.3  | 833.6  |
| 25°    | 865.2  | 851.4  | 819.8  | 806.7  | 799.0  |
| 27.5°  | 838.3  | 821.3  | 788.2  | 772.8  | 762.0  |
| 30°    | 809.8  | 790.5  | 754.3  | 735.0  | 722.7  |
| 32.5°  | 779.7  | 757.4  | 719.6  | 696.5  | 684.9  |
| 35°    | 748.1  | 723.5  | 684.9  | 658.7  | 644.9  |
| 37.5°  | 715.0  | 689.6  | 647.2  | 618.7  | 604.8  |
| 40°    | 679.6  | 654.1  | 610.2  | 577.8  | 564.0  |
| 42.5°  | 645.7  | 618.7  | 572.5  | 539.3  | 524.7  |
| 45°    | 610.2  | 581.7  | 535.5  | 497.7  | 483.9  |
| 47.5°  | 574.0  | 544.7  | 497.0  | 457.7  | 442.2  |
| 50°    | 537.0  | 507.0  | 457.7  | 419.1  | 404.5  |
| 52.5°  | 499.3  | 470.0  | 419.1  | 379.8  | 364.4  |
| 55°    | 462.3  | 431.5  | 381.4  | 341.3  | 326.7  |
| 57.5°  | 426.1  | 393.7  | 344.4  | 303.6  | 292.8  |
| 60°    | 386.8  | 356.0  | 306.6  | 266.6  | 254.3  |
| 62.5°  | 351.3  | 319.0  | 268.1  | 231.9  | 222.7  |
| 65°    | 314.4  | 281.2  | 231.9  | 198.8  | 189.5  |
| 67.5°  | 275.8  | 244.2  | 198.0  | 168.7  | 157.9  |
| 70°    | 239.6  | 207.3  | 163.3  | 137.9  | 130.2  |
| 72.5°  | 201.1  | 172.6  | 131.7  | 110.9  | 104.0  |
| 75°    | 167.2  | 138.7  | 102.5  | 84.8   | 80.1   |
| 77.5°  | 131.7  | 107.1  | 76.3   | 63.9   | 62.4   |
| 80°    | 97.8   | 75.5   | 52.4   | 50.1   | 49.3   |
| 82.5°  | 68.6   | 48.5   | 37.8   | 36.2   | 35.4   |
| 85°    | 41.6   | 26.2   | 23.9   | 22.3   | 22.3   |
| 87.5°  | 17.7   | 11.6   | 10.8   | 10.0   | 10.8   |
| 90°    | 2.3    | 10.6   | 16.7   | 21.3   | 22.8   |
| 92.5°  | 19.7   | 29.6   | 33.4   | 35.7   | 36.4   |
| 95°    | 45.6   | 52.4   | 57.7   | 60.0   | 60.0   |
| 97.5°  | 72.9   | 79.0   | 85.0   | 88.1   | 88.1   |
| 100°   | 106.3  | 109.3  | 116.2  | 117.7  | 117.7  |
| 102.5° | 141.2  | 142.0  | 148.1  | 150.3  | 151.1  |
| 105°   | 176.9  | 177.7  | 180.7  | 183.0  | 185.3  |
| 107.5° | 214.1  | 214.9  | 215.6  | 218.7  | 217.9  |
| 110°   | 252.1  | 253.6  | 252.8  | 251.3  | 253.6  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 291.6 | 291.6 | 290.0 | 290.0 | 290.0 |
| 115°   | 331.0 | 331.0 | 329.5 | 328.8 | 328.0 |
| 117.5° | 368.2 | 368.2 | 367.5 | 365.2 | 362.9 |
| 120°   | 405.4 | 408.5 | 406.2 | 402.4 | 403.9 |
| 122.5° | 444.2 | 444.9 | 444.2 | 441.9 | 438.1 |
| 125°   | 482.1 | 482.1 | 481.4 | 479.8 | 478.3 |
| 127.5° | 516.3 | 518.6 | 517.1 | 515.5 | 514.8 |
| 130°   | 552.7 | 555.0 | 555.0 | 553.5 | 550.5 |
| 132.5° | 589.9 | 591.5 | 590.7 | 589.2 | 588.4 |
| 135°   | 621.8 | 626.4 | 626.4 | 624.9 | 622.6 |
| 137.5° | 657.5 | 659.8 | 661.3 | 659.0 | 659.8 |
| 140°   | 693.2 | 694.7 | 694.7 | 694.0 | 693.2 |
| 142.5° | 725.8 | 727.4 | 726.6 | 726.6 | 726.6 |
| 145°   | 755.5 | 758.5 | 759.3 | 758.5 | 756.2 |
| 147.5° | 785.8 | 789.6 | 788.9 | 788.1 | 787.3 |
| 150°   | 813.2 | 816.2 | 816.2 | 816.2 | 815.4 |
| 152.5° | 839.0 | 840.5 | 841.3 | 843.5 | 841.3 |
| 155°   | 865.6 | 865.6 | 864.8 | 867.8 | 864.8 |
| 157.5° | 888.3 | 886.8 | 886.8 | 889.1 | 886.8 |
| 160°   | 908.1 | 907.3 | 906.5 | 908.8 | 905.0 |
| 162.5° | 926.3 | 924.0 | 923.3 | 927.8 | 924.0 |
| 165°   | 942.2 | 940.0 | 938.4 | 943.0 | 940.0 |
| 167.5° | 955.1 | 952.1 | 952.1 | 956.7 | 952.1 |
| 170°   | 965.8 | 962.0 | 962.7 | 967.3 | 962.0 |
| 172.5° | 973.4 | 970.3 | 970.3 | 975.6 | 970.3 |
| 175°   | 980.2 | 976.4 | 975.6 | 981.0 | 975.6 |
| 177.5° | 983.2 | 979.4 | 979.4 | 984.8 | 978.7 |
| 180°   | 981.7 | 981.7 | 981.7 | 981.7 | 981.7 |

(END OF REPORT)