

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: P1034183

Luminaire Tested: S124RDIW-B575D470UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1034183  
REPORT IS A COMBINATION OF REPORTS P1000635 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B575D470UB30-4F0-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**

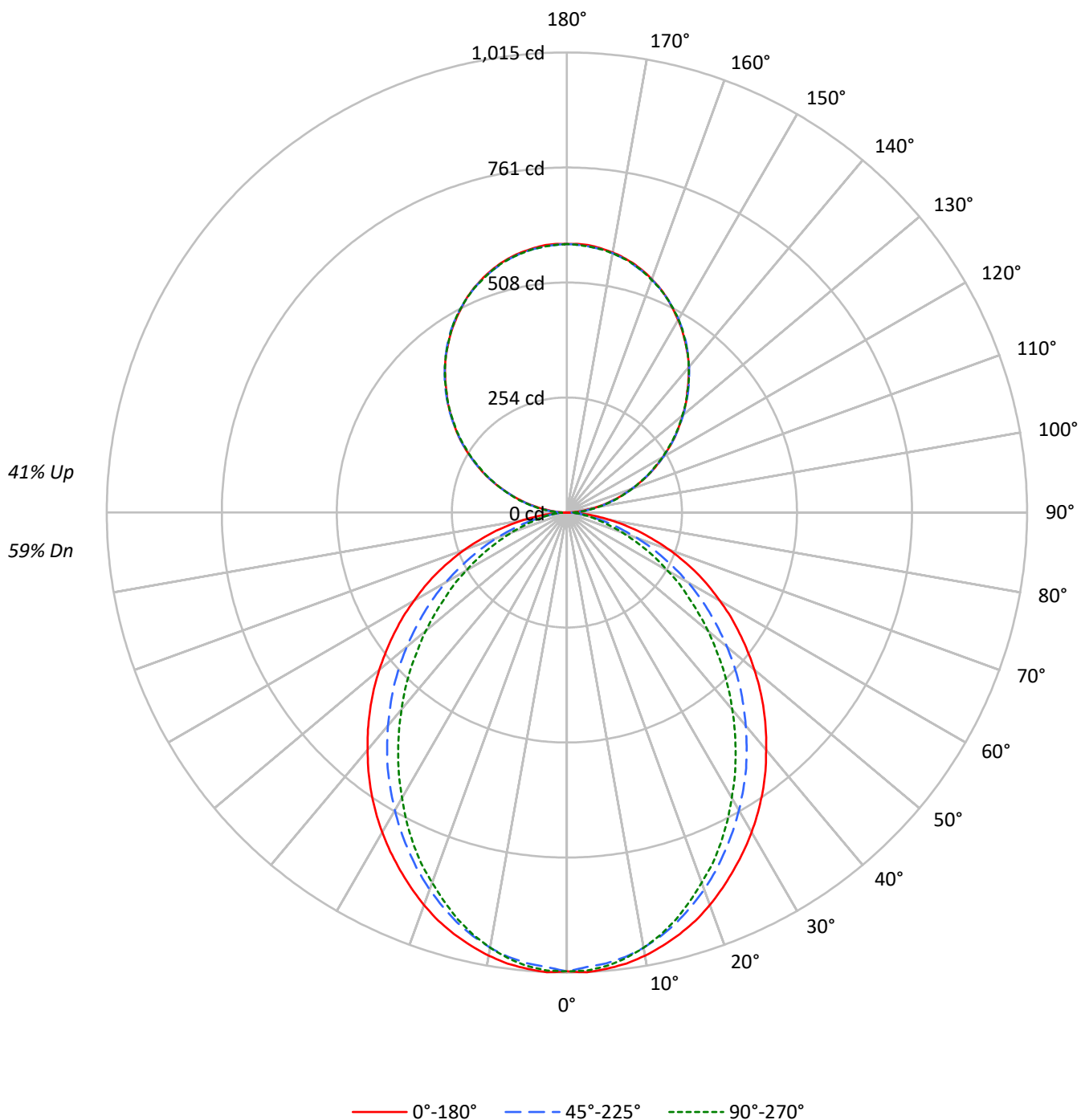
Lumens per Lamp: N/A  
Luminaire Lumens: 3984.0 lumens  
Efficiency: N/A  
Efficacy: 107.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 37.2  
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   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 76 | 76 | 76 | 64 | 64 | 64 |
| 1   | 100 | 96  | 92  | 89  | 93  | 90  | 86  | 83  | 78 | 75 | 73 | 67 | 65 | 64 | 57 | 56 | 55 |
| 2   | 91  | 84  | 78  | 73  | 85  | 79  | 73  | 69  | 69 | 65 | 61 | 59 | 56 | 54 | 51 | 49 | 47 |
| 3   | 84  | 74  | 67  | 61  | 78  | 70  | 63  | 58  | 61 | 56 | 52 | 53 | 49 | 46 | 45 | 42 | 40 |
| 4   | 77  | 66  | 58  | 52  | 71  | 62  | 55  | 49  | 54 | 49 | 44 | 47 | 43 | 39 | 41 | 37 | 35 |
| 5   | 70  | 59  | 51  | 45  | 66  | 55  | 48  | 43  | 49 | 43 | 38 | 42 | 38 | 34 | 37 | 33 | 30 |
| 6   | 65  | 53  | 45  | 39  | 61  | 50  | 43  | 37  | 44 | 38 | 34 | 39 | 34 | 30 | 33 | 30 | 27 |
| 7   | 60  | 48  | 40  | 34  | 56  | 45  | 38  | 33  | 40 | 34 | 30 | 35 | 30 | 27 | 31 | 27 | 24 |
| 8   | 56  | 44  | 36  | 31  | 52  | 41  | 34  | 29  | 37 | 31 | 27 | 32 | 28 | 24 | 28 | 24 | 22 |
| 9   | 52  | 40  | 32  | 27  | 49  | 38  | 31  | 26  | 34 | 28 | 24 | 30 | 25 | 22 | 26 | 22 | 20 |
| 10  | 49  | 37  | 29  | 25  | 46  | 35  | 28  | 24  | 31 | 26 | 22 | 28 | 23 | 20 | 24 | 21 | 18 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8255 | 8255 | 8255 |
| 5°  | 8255 | 8009 | 8010 |
| 10° | 8185 | 7757 | 7665 |
| 15° | 8073 | 7442 | 7257 |
| 20° | 7925 | 7084 | 6791 |
| 25° | 7741 | 6696 | 6337 |
| 30° | 7561 | 6301 | 5826 |
| 35° | 7363 | 5901 | 5328 |
| 40° | 7127 | 5470 | 4815 |
| 45° | 6907 | 5043 | 4308 |
| 50° | 6655 | 4576 | 3792 |
| 55° | 6384 | 4098 | 3261 |
| 60° | 6082 | 3589 | 2736 |
| 65° | 5791 | 3006 | 2230 |
| 70° | 5379 | 2393 | 1704 |
| 75° | 4847 | 1741 | 1192 |
| 80° | 4047 | 1069 | 857  |
| 85° | 3049 | 615  | 472  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 6907 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 95.2   | 2.4       |
| 10°-20°   | 265.4  | 6.7       |
| 20°-30°   | 383.2  | 9.6       |
| 30°-40°   | 434.3  | 10.9      |
| 40°-50°   | 419.3  | 10.5      |
| 50°-60°   | 348.6  | 8.8       |
| 60°-70°   | 240.6  | 6.0       |
| 70°-80°   | 121.6  | 3.1       |
| 80°-90°   | 32.1   | 0.8       |
| 90°-100°  | 38.6   | 1.0       |
| 100°-110° | 115.7  | 2.9       |
| 110°-120° | 196.5  | 4.9       |
| 120°-130° | 259.1  | 6.5       |
| 130°-140° | 291.1  | 7.3       |
| 140°-150° | 286.1  | 7.2       |
| 150°-160° | 240.6  | 6.0       |
| 160°-170° | 160.1  | 4.0       |
| 170°-180° | 56.1   | 1.4       |
| 0°-30°    | 743.8  | 18.7      |
| 0°-40°    | 1178.0 | 29.6      |
| 0°-60°    | 1945.9 | 48.8      |
| 0°-90°    | 2340.2 | 58.7      |
| 90°-120°  | 350.7  | 8.8       |
| 90°-150°  | 1187.0 | 29.8      |
| 90°-180°  | 1644.0 | 41.3      |
| 0°-180°   | 3984.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1012 | 1012  | 1012 | 1012  | 1012 |      |
| 5°   | 1011 | 1008  | 998  | 1006  | 1004 | 96   |
| 15°  | 963  | 956   | 936  | 935   | 929  | 271  |
| 25°  | 870  | 856   | 825  | 812   | 804  | 401  |
| 35°  | 753  | 728   | 689  | 663   | 649  | 470  |
| 45°  | 614  | 585   | 539  | 501   | 487  | 473  |
| 55°  | 465  | 434   | 384  | 343   | 329  | 416  |
| 65°  | 316  | 283   | 233  | 200   | 191  | 312  |
| 75°  | 168  | 140   | 103  | 85    | 81   | 177  |
| 85°  | 42   | 26    | 24   | 22    | 22   | 46   |
| 90°  | 1    | 6     | 10   | 13    | 14   | 4    |
| 95°  | 28   | 32    | 35   | 36    | 36   | 30   |
| 105° | 107  | 107   | 109  | 110   | 112  | 113  |
| 115° | 200  | 200   | 199  | 198   | 198  | 197  |
| 125° | 291  | 291   | 290  | 290   | 289  | 259  |
| 135° | 375  | 378   | 378  | 377   | 376  | 290  |
| 145° | 456  | 458   | 458  | 458   | 456  | 285  |
| 155° | 522  | 522   | 522  | 524   | 522  | 240  |
| 165° | 569  | 567   | 566  | 569   | 567  | 160  |
| 175° | 592  | 589   | 589  | 592   | 589  | 56   |
| 180° | 592  | 592   | 592  | 592   | 592  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1012.3 | 1012.3 | 1012.3 | 1012.3 | 1012.3 |
| 2.5°   | 1015.4 | 1012.3 | 1003.8 | 1012.3 | 1011.5 |
| 5°     | 1010.7 | 1007.6 | 998.3  | 1006.1 | 1004.5 |
| 7.5°   | 1003.8 | 1000.7 | 989.0  | 994.5  | 992.1  |
| 10°    | 992.9  | 989.0  | 975.1  | 978.2  | 975.1  |
| 12.5°  | 979.0  | 974.3  | 957.3  | 958.8  | 954.2  |
| 15°    | 962.7  | 955.7  | 936.3  | 934.8  | 929.4  |
| 17.5°  | 944.1  | 934.0  | 911.5  | 907.6  | 899.9  |
| 20°    | 921.6  | 911.5  | 885.2  | 879.0  | 868.9  |
| 22.5°  | 896.8  | 885.2  | 856.5  | 846.4  | 838.7  |
| 25°    | 870.4  | 856.5  | 824.7  | 811.5  | 803.8  |
| 27.5°  | 843.3  | 826.3  | 792.9  | 777.4  | 766.6  |
| 30°    | 814.6  | 795.3  | 758.8  | 739.5  | 727.0  |
| 32.5°  | 784.4  | 761.9  | 723.9  | 700.7  | 689.1  |
| 35°    | 752.6  | 727.8  | 689.1  | 662.7  | 648.8  |
| 37.5°  | 719.3  | 693.7  | 651.1  | 622.4  | 608.5  |
| 40°    | 683.6  | 658.1  | 613.9  | 581.3  | 567.4  |
| 42.5°  | 649.5  | 622.4  | 575.9  | 542.6  | 527.8  |
| 45°    | 613.9  | 585.2  | 538.7  | 500.7  | 486.8  |
| 47.5°  | 577.5  | 548.0  | 499.9  | 460.4  | 444.9  |
| 50°    | 540.2  | 510.0  | 460.4  | 421.7  | 406.9  |
| 52.5°  | 502.3  | 472.8  | 421.7  | 382.1  | 366.6  |
| 55°    | 465.1  | 434.1  | 383.7  | 343.4  | 328.6  |
| 57.5°  | 428.6  | 396.1  | 346.5  | 305.4  | 294.5  |
| 60°    | 389.1  | 358.1  | 308.5  | 268.2  | 255.8  |
| 62.5°  | 353.4  | 320.9  | 269.7  | 233.3  | 224.0  |
| 65°    | 316.2  | 282.9  | 233.3  | 200.0  | 190.7  |
| 67.5°  | 277.5  | 245.7  | 199.2  | 169.7  | 158.9  |
| 70°    | 241.1  | 208.5  | 164.3  | 138.7  | 131.0  |
| 72.5°  | 202.3  | 173.6  | 132.5  | 111.6  | 104.6  |
| 75°    | 168.2  | 139.5  | 103.1  | 85.3   | 80.6   |
| 77.5°  | 132.5  | 107.7  | 76.7   | 64.3   | 62.8   |
| 80°    | 98.4   | 76.0   | 52.7   | 50.4   | 49.6   |
| 82.5°  | 69.0   | 48.8   | 38.0   | 36.4   | 35.7   |
| 85°    | 41.9   | 26.4   | 24.0   | 22.5   | 22.5   |
| 87.5°  | 17.8   | 11.6   | 10.9   | 10.1   | 10.9   |
| 90°    | 1.4    | 6.4    | 10.1   | 12.8   | 13.7   |
| 92.5°  | 11.9   | 17.9   | 20.2   | 21.5   | 22.0   |
| 95°    | 27.5   | 31.6   | 34.8   | 36.2   | 36.2   |
| 97.5°  | 44.0   | 47.6   | 51.3   | 53.1   | 53.1   |
| 100°   | 64.1   | 66.0   | 70.1   | 71.0   | 71.0   |
| 102.5° | 85.2   | 85.7   | 89.3   | 90.7   | 91.2   |
| 105°   | 106.8  | 107.2  | 109.0  | 110.4  | 111.8  |
| 107.5° | 129.2  | 129.7  | 130.1  | 132.0  | 131.5  |
| 110°   | 152.1  | 153.0  | 152.6  | 151.7  | 153.0  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 175.9 | 175.9 | 175.0 | 175.0 | 175.0 |
| 115°   | 199.8 | 199.8 | 198.8 | 198.4 | 197.9 |
| 117.5° | 222.2 | 222.2 | 221.8 | 220.4 | 219.0 |
| 120°   | 244.7 | 246.5 | 245.1 | 242.8 | 243.7 |
| 122.5° | 268.0 | 268.5 | 268.0 | 266.7 | 264.4 |
| 125°   | 290.9 | 290.9 | 290.5 | 289.6 | 288.6 |
| 127.5° | 311.6 | 312.9 | 312.0 | 311.1 | 310.6 |
| 130°   | 333.5 | 334.9 | 334.9 | 334.0 | 332.2 |
| 132.5° | 356.0 | 356.9 | 356.5 | 355.5 | 355.1 |
| 135°   | 375.2 | 378.0 | 378.0 | 377.1 | 375.7 |
| 137.5° | 396.8 | 398.2 | 399.1 | 397.7 | 398.2 |
| 140°   | 418.3 | 419.2 | 419.2 | 418.8 | 418.3 |
| 142.5° | 438.0 | 438.9 | 438.5 | 438.5 | 438.5 |
| 145°   | 455.9 | 457.7 | 458.2 | 457.7 | 456.3 |
| 147.5° | 474.2 | 476.5 | 476.0 | 475.6 | 475.1 |
| 150°   | 490.7 | 492.5 | 492.5 | 492.5 | 492.1 |
| 152.5° | 506.3 | 507.2 | 507.7 | 509.0 | 507.7 |
| 155°   | 522.3 | 522.3 | 521.9 | 523.7 | 521.9 |
| 157.5° | 536.1 | 535.1 | 535.1 | 536.5 | 535.1 |
| 160°   | 548.0 | 547.5 | 547.1 | 548.4 | 546.1 |
| 162.5° | 559.0 | 557.6 | 557.1 | 559.9 | 557.6 |
| 165°   | 568.6 | 567.2 | 566.3 | 569.0 | 567.2 |
| 167.5° | 576.4 | 574.5 | 574.5 | 577.3 | 574.5 |
| 170°   | 582.8 | 580.5 | 581.0 | 583.7 | 580.5 |
| 172.5° | 587.4 | 585.5 | 585.5 | 588.7 | 585.5 |
| 175°   | 591.5 | 589.2 | 588.7 | 592.0 | 588.7 |
| 177.5° | 593.3 | 591.0 | 591.0 | 594.2 | 590.6 |
| 180°   | 592.4 | 592.4 | 592.4 | 592.4 | 592.4 |

(END OF REPORT)