

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: P1029229

Luminaire Tested: S122DIW-B1005D435UB2750-4F0-XX-W2A-D\_2700K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029229  
REPORT IS A COMBINATION OF REPORTS P985232 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B1005D435UB2750-4F0-XX-W2A-D\_2700K  
Description: Define 2 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

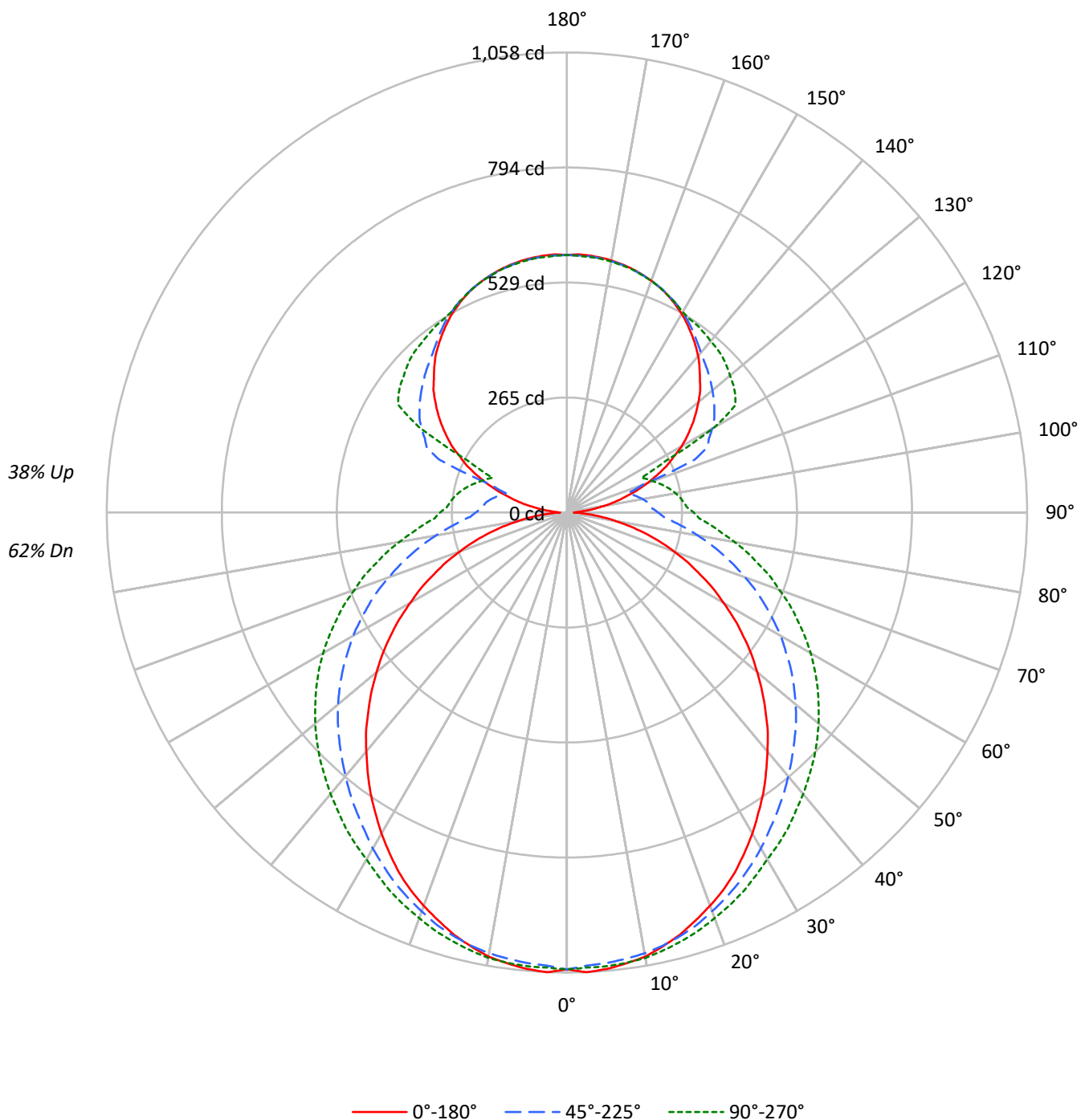
Lumens per Lamp: N/A  
Luminaire Lumens: 5746.0 lumens  
Efficiency: N/A  
Efficacy: 77.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 74.5  
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   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 |
| 1   | 99  | 93  | 89  | 85  | 92  | 87  | 83  | 80  | 76 | 73 | 70 | 66 | 64 | 61 | 56 | 55 | 53 |
| 2   | 89  | 81  | 73  | 68  | 83  | 75  | 69  | 64  | 66 | 61 | 57 | 57 | 53 | 50 | 49 | 46 | 43 |
| 3   | 81  | 70  | 62  | 55  | 75  | 66  | 58  | 53  | 57 | 52 | 47 | 50 | 45 | 41 | 42 | 39 | 36 |
| 4   | 74  | 62  | 53  | 46  | 68  | 58  | 50  | 44  | 51 | 44 | 39 | 44 | 39 | 35 | 38 | 34 | 31 |
| 5   | 68  | 55  | 46  | 40  | 63  | 52  | 44  | 38  | 45 | 39 | 34 | 39 | 34 | 30 | 34 | 30 | 26 |
| 6   | 62  | 49  | 40  | 34  | 58  | 46  | 38  | 32  | 41 | 34 | 29 | 35 | 30 | 26 | 30 | 26 | 23 |
| 7   | 57  | 44  | 36  | 30  | 53  | 42  | 34  | 28  | 37 | 30 | 26 | 32 | 27 | 23 | 28 | 23 | 20 |
| 8   | 53  | 40  | 32  | 26  | 50  | 38  | 30  | 25  | 33 | 27 | 23 | 29 | 24 | 20 | 25 | 21 | 18 |
| 9   | 50  | 37  | 29  | 23  | 46  | 35  | 27  | 22  | 31 | 25 | 20 | 27 | 22 | 18 | 23 | 19 | 16 |
| 10  | 46  | 34  | 26  | 21  | 43  | 32  | 25  | 20  | 28 | 22 | 18 | 25 | 20 | 16 | 22 | 18 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16632 | 16632 | 16632 |
| 5°  | 16706 | 15921 | 15831 |
| 10° | 16595 | 15371 | 15146 |
| 15° | 16360 | 14799 | 14442 |
| 20° | 16066 | 14201 | 13775 |
| 25° | 15773 | 13627 | 13169 |
| 30° | 15364 | 13044 | 12569 |
| 35° | 14950 | 12483 | 12129 |
| 40° | 14515 | 11997 | 11692 |
| 45° | 14100 | 11555 | 11311 |
| 50° | 13655 | 11149 | 10935 |
| 55° | 13187 | 10718 | 10551 |
| 60° | 12614 | 10269 | 10149 |
| 65° | 12016 | 9752  | 9684  |
| 70° | 11342 | 9198  | 9185  |
| 75° | 10478 | 8643  | 8715  |
| 80° | 9117  | 8066  | 8226  |
| 85° | 7741  | 7522  | 7807  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14100 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.6   | 1.7       |
| 10°-20°   | 285.7  | 5.0       |
| 20°-30°   | 432.8  | 7.5       |
| 30°-40°   | 527.1  | 9.2       |
| 40°-50°   | 567.1  | 9.9       |
| 50°-60°   | 550.7  | 9.6       |
| 60°-70°   | 481.0  | 8.4       |
| 70°-80°   | 370.2  | 6.4       |
| 80°-90°   | 249.0  | 4.3       |
| 90°-100°  | 190.6  | 3.3       |
| 100°-110° | 197.7  | 3.4       |
| 110°-120° | 275.5  | 4.8       |
| 120°-130° | 366.1  | 6.4       |
| 130°-140° | 359.4  | 6.3       |
| 140°-150° | 319.3  | 5.6       |
| 150°-160° | 254.1  | 4.4       |
| 160°-170° | 163.8  | 2.8       |
| 170°-180° | 56.4   | 1.0       |
| 0°-30°    | 818.1  | 14.2      |
| 0°-40°    | 1345.2 | 23.4      |
| 0°-60°    | 2463.0 | 42.9      |
| 0°-90°    | 3563.1 | 62.0      |
| 90°-120°  | 663.8  | 11.6      |
| 90°-150°  | 1708.6 | 29.7      |
| 90°-180°  | 2183.0 | 38.0      |
| 0°-180°   | 5746.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1051 | 1051  | 1051 | 1051  | 1051 |      |
| 5°   | 1054 | 1049  | 1040 | 1049  | 1048 | 100  |
| 15°  | 1005 | 1008  | 1008 | 1022  | 1020 | 283  |
| 25°  | 914  | 924   | 938  | 956   | 961  | 420  |
| 35°  | 787  | 813   | 842  | 876   | 886  | 492  |
| 45°  | 646  | 687   | 740  | 787   | 802  | 498  |
| 55°  | 495  | 550   | 629  | 684   | 704  | 443  |
| 65°  | 338  | 413   | 502  | 565   | 585  | 336  |
| 75°  | 187  | 273   | 370  | 436   | 455  | 198  |
| 85°  | 55   | 149   | 247  | 311   | 332  | 58   |
| 90°  | 16   | 109   | 210  | 273   | 292  | 12   |
| 95°  | 40   | 97    | 192  | 252   | 270  | 43   |
| 105° | 138  | 195   | 157  | 215   | 234  | 148  |
| 115° | 252  | 276   | 356  | 203   | 189  | 248  |
| 125° | 351  | 357   | 414  | 458   | 473  | 314  |
| 135° | 432  | 439   | 458  | 495   | 506  | 335  |
| 145° | 500  | 500   | 507  | 519   | 524  | 313  |
| 155° | 551  | 547   | 552  | 554   | 551  | 254  |
| 165° | 580  | 578   | 579  | 582   | 579  | 164  |
| 175° | 593  | 590   | 591  | 594   | 590  | 56   |
| 180° | 592  | 592   | 592  | 592   | 592  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1050.7 | 1050.7 | 1050.7 | 1050.7 | 1050.7 |
| 2.5°   | 1058.3 | 1053.7 | 1043.1 | 1050.7 | 1047.6 |
| 5°     | 1053.7 | 1049.2 | 1040.0 | 1049.2 | 1047.6 |
| 7.5°   | 1046.1 | 1043.1 | 1035.4 | 1046.1 | 1044.6 |
| 10°    | 1037.0 | 1033.9 | 1029.4 | 1041.5 | 1040.0 |
| 12.5°  | 1021.7 | 1023.3 | 1020.2 | 1032.4 | 1030.9 |
| 15°    | 1005.0 | 1008.0 | 1008.0 | 1021.7 | 1020.2 |
| 17.5°  | 983.7  | 989.8  | 994.3  | 1008.0 | 1008.0 |
| 20°    | 962.4  | 970.0  | 976.1  | 992.8  | 992.8  |
| 22.5°  | 939.5  | 948.7  | 957.8  | 974.5  | 977.6  |
| 25°    | 913.6  | 924.3  | 938.0  | 956.3  | 960.8  |
| 27.5°  | 883.2  | 899.9  | 915.2  | 938.0  | 941.0  |
| 30°    | 852.7  | 872.5  | 892.3  | 916.7  | 921.2  |
| 32.5°  | 819.2  | 842.1  | 866.4  | 895.4  | 904.5  |
| 35°    | 787.2  | 813.1  | 842.1  | 875.6  | 886.2  |
| 37.5°  | 752.2  | 781.2  | 817.7  | 854.2  | 864.9  |
| 40°    | 717.2  | 750.7  | 791.8  | 831.4  | 845.1  |
| 42.5°  | 683.7  | 717.2  | 765.9  | 810.1  | 823.8  |
| 45°    | 645.6  | 686.7  | 740.0  | 787.2  | 802.5  |
| 47.5°  | 609.1  | 653.2  | 714.2  | 762.9  | 779.6  |
| 50°    | 571.0  | 618.2  | 686.7  | 738.5  | 755.3  |
| 52.5°  | 534.5  | 584.7  | 657.8  | 711.1  | 729.4  |
| 55°    | 494.9  | 549.7  | 628.9  | 683.7  | 703.5  |
| 57.5°  | 456.8  | 517.7  | 596.9  | 656.3  | 676.1  |
| 60°    | 415.7  | 481.2  | 568.0  | 625.8  | 647.2  |
| 62.5°  | 379.2  | 447.7  | 534.5  | 596.9  | 616.7  |
| 65°    | 338.0  | 412.7  | 502.5  | 564.9  | 584.7  |
| 67.5°  | 301.5  | 379.2  | 470.5  | 533.0  | 554.3  |
| 70°    | 261.9  | 341.1  | 435.5  | 501.0  | 519.2  |
| 72.5°  | 225.4  | 307.6  | 403.5  | 467.5  | 490.3  |
| 75°    | 187.3  | 272.6  | 370.0  | 435.5  | 455.3  |
| 77.5°  | 150.7  | 239.1  | 338.0  | 403.5  | 424.8  |
| 80°    | 114.2  | 207.1  | 306.1  | 370.0  | 391.3  |
| 82.5°  | 83.7   | 175.1  | 275.6  | 339.6  | 359.4  |
| 85°    | 54.8   | 149.2  | 246.7  | 310.6  | 332.0  |
| 87.5°  | 33.5   | 124.9  | 222.3  | 284.7  | 304.5  |
| 90°    | 15.6   | 108.6  | 209.6  | 272.6  | 291.8  |
| 92.5°  | 24.4   | 103.4  | 197.6  | 257.8  | 276.6  |
| 95°    | 40.1   | 97.4   | 191.8  | 251.9  | 269.6  |
| 97.5°  | 60.8   | 91.1   | 186.4  | 243.9  | 262.7  |
| 100°   | 86.5   | 84.1   | 176.7  | 236.5  | 254.1  |
| 102.5° | 113.2  | 162.7  | 166.9  | 226.4  | 244.5  |
| 105°   | 137.9  | 194.9  | 157.1  | 215.0  | 233.6  |
| 107.5° | 168.3  | 215.6  | 147.3  | 203.8  | 222.2  |
| 110°   | 195.9  | 235.3  | 186.2  | 192.0  | 210.4  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 223.3 | 255.4 | 318.2 | 182.2 | 200.3 |
| 115°   | 252.5 | 276.5 | 355.8 | 203.0 | 188.9 |
| 117.5° | 276.2 | 296.9 | 368.2 | 352.6 | 255.6 |
| 120°   | 304.5 | 317.1 | 385.7 | 433.4 | 392.4 |
| 122.5° | 328.5 | 336.9 | 401.7 | 445.4 | 459.5 |
| 125°   | 351.3 | 356.9 | 413.9 | 458.0 | 472.9 |
| 127.5° | 373.6 | 378.1 | 425.7 | 468.0 | 482.2 |
| 130°   | 394.6 | 400.0 | 436.7 | 477.9 | 489.7 |
| 132.5° | 416.0 | 420.1 | 447.7 | 486.6 | 498.4 |
| 135°   | 432.5 | 439.4 | 458.5 | 494.7 | 506.1 |
| 137.5° | 451.4 | 456.5 | 468.4 | 501.7 | 511.0 |
| 140°   | 469.8 | 471.7 | 479.5 | 507.7 | 514.7 |
| 142.5° | 485.2 | 486.7 | 492.3 | 514.0 | 519.5 |
| 145°   | 500.0 | 499.6 | 506.9 | 519.0 | 524.4 |
| 147.5° | 514.2 | 512.9 | 520.2 | 523.8 | 526.7 |
| 150°   | 527.9 | 524.9 | 531.7 | 534.3 | 532.2 |
| 152.5° | 539.4 | 536.0 | 542.4 | 545.0 | 542.0 |
| 155°   | 550.6 | 546.7 | 551.9 | 554.4 | 551.0 |
| 157.5° | 559.6 | 556.2 | 560.0 | 563.0 | 559.6 |
| 160°   | 567.3 | 564.7 | 567.3 | 569.9 | 566.9 |
| 162.5° | 574.1 | 571.6 | 573.7 | 576.7 | 572.9 |
| 165°   | 580.1 | 577.6 | 578.9 | 581.9 | 578.9 |
| 167.5° | 584.9 | 582.3 | 583.6 | 586.6 | 582.7 |
| 170°   | 588.7 | 586.1 | 587.0 | 590.0 | 586.1 |
| 172.5° | 591.3 | 588.7 | 589.6 | 592.6 | 588.7 |
| 175°   | 593.4 | 590.4 | 591.3 | 594.3 | 590.0 |
| 177.5° | 594.3 | 591.3 | 591.7 | 594.7 | 590.9 |
| 180°   | 592.1 | 592.1 | 592.1 | 592.1 | 592.1 |

(END OF REPORT)