

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: P1029230

Luminaire Tested: S122DIW-B1005D435UB2750-4F0-XX-W2A-D\_3000K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029230  
REPORT IS A COMBINATION OF REPORTS P985233 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\_3000K  
Description: Define 2 Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

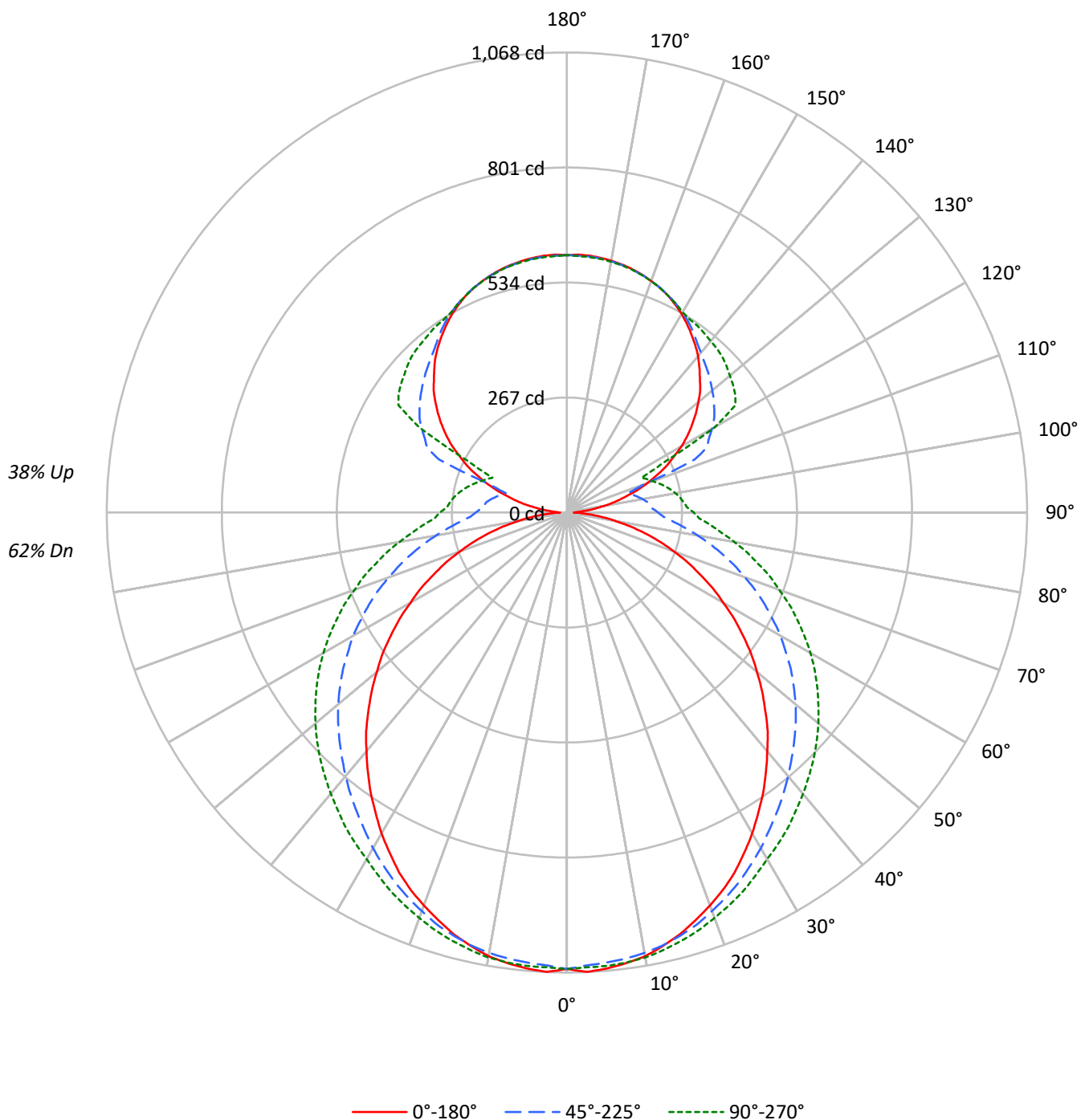
Lumens per Lamp: N/A  
Luminaire Lumens: 5796.0 lumens  
Efficiency: N/A  
Efficacy: 77.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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°  | 16776 | 16776 | 16776 |
| 5°  | 16852 | 16061 | 15970 |
| 10° | 16739 | 15504 | 15278 |
| 15° | 16503 | 14928 | 14568 |
| 20° | 16206 | 14325 | 13895 |
| 25° | 15911 | 13746 | 13284 |
| 30° | 15499 | 13158 | 12680 |
| 35° | 15081 | 12591 | 12236 |
| 40° | 14643 | 12101 | 11794 |
| 45° | 14224 | 11657 | 11410 |
| 50° | 13774 | 11247 | 11030 |
| 55° | 13302 | 10812 | 10643 |
| 60° | 12723 | 10358 | 10237 |
| 65° | 12122 | 9838  | 9768  |
| 70° | 11442 | 9278  | 9266  |
| 75° | 10567 | 8720  | 8791  |
| 80° | 9197  | 8135  | 8300  |
| 85° | 7811  | 7586  | 7873  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14224 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.5  | 1.7       |
| 10°-20°   | 288.2  | 5.0       |
| 20°-30°   | 436.6  | 7.5       |
| 30°-40°   | 531.7  | 9.2       |
| 40°-50°   | 572.0  | 9.9       |
| 50°-60°   | 555.5  | 9.6       |
| 60°-70°   | 485.2  | 8.4       |
| 70°-80°   | 373.4  | 6.4       |
| 80°-90°   | 251.1  | 4.3       |
| 90°-100°  | 192.2  | 3.3       |
| 100°-110° | 199.4  | 3.4       |
| 110°-120° | 277.9  | 4.8       |
| 120°-130° | 369.3  | 6.4       |
| 130°-140° | 362.5  | 6.3       |
| 140°-150° | 322.1  | 5.6       |
| 150°-160° | 256.3  | 4.4       |
| 160°-170° | 165.2  | 2.8       |
| 170°-180° | 56.8   | 1.0       |
| 0°-30°    | 825.2  | 14.2      |
| 0°-40°    | 1356.9 | 23.4      |
| 0°-60°    | 2484.5 | 42.9      |
| 0°-90°    | 3594.2 | 62.0      |
| 90°-120°  | 669.5  | 11.6      |
| 90°-150°  | 1723.4 | 29.7      |
| 90°-180°  | 2202.0 | 38.0      |
| 0°-180°   | 5796.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1060 | 1060  | 1060 | 1060  | 1060 |      |
| 5°   | 1063 | 1058  | 1049 | 1058  | 1057 | 101  |
| 15°  | 1014 | 1017  | 1017 | 1031  | 1029 | 286  |
| 25°  | 922  | 932   | 946  | 965   | 969  | 424  |
| 35°  | 794  | 820   | 849  | 883   | 894  | 496  |
| 45°  | 651  | 693   | 746  | 794   | 810  | 503  |
| 55°  | 499  | 554   | 634  | 690   | 710  | 447  |
| 65°  | 341  | 416   | 507  | 570   | 590  | 339  |
| 75°  | 189  | 275   | 373  | 439   | 459  | 200  |
| 85°  | 55   | 150   | 249  | 313   | 335  | 58   |
| 90°  | 16   | 110   | 211  | 275   | 294  | 12   |
| 95°  | 40   | 98    | 194  | 254   | 272  | 43   |
| 105° | 139  | 196   | 158  | 217   | 236  | 149  |
| 115° | 255  | 279   | 359  | 205   | 190  | 250  |
| 125° | 354  | 360   | 417  | 462   | 477  | 317  |
| 135° | 436  | 443   | 462  | 499   | 510  | 338  |
| 145° | 504  | 504   | 511  | 524   | 529  | 316  |
| 155° | 555  | 551   | 557  | 559   | 556  | 256  |
| 165° | 585  | 583   | 584  | 587   | 584  | 165  |
| 175° | 599  | 596   | 596  | 599   | 595  | 57   |
| 180° | 597  | 597   | 597  | 597   | 597  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1059.8 | 1059.8 | 1059.8 | 1059.8 | 1059.8 |
| 2.5°   | 1067.5 | 1062.9 | 1052.2 | 1059.8 | 1056.8 |
| 5°     | 1062.9 | 1058.3 | 1049.1 | 1058.3 | 1056.8 |
| 7.5°   | 1055.2 | 1052.2 | 1044.5 | 1055.2 | 1053.7 |
| 10°    | 1046.0 | 1042.9 | 1038.3 | 1050.6 | 1049.1 |
| 12.5°  | 1030.7 | 1032.2 | 1029.1 | 1041.4 | 1039.9 |
| 15°    | 1013.8 | 1016.8 | 1016.8 | 1030.7 | 1029.1 |
| 17.5°  | 992.3  | 998.4  | 1003.0 | 1016.8 | 1016.8 |
| 20°    | 970.8  | 978.4  | 984.6  | 1001.5 | 1001.5 |
| 22.5°  | 947.7  | 956.9  | 966.1  | 983.0  | 986.1  |
| 25°    | 921.6  | 932.4  | 946.2  | 964.6  | 969.2  |
| 27.5°  | 890.9  | 907.8  | 923.1  | 946.2  | 949.3  |
| 30°    | 860.2  | 880.1  | 900.1  | 924.7  | 929.3  |
| 32.5°  | 826.4  | 849.4  | 874.0  | 903.2  | 912.4  |
| 35°    | 794.1  | 820.2  | 849.4  | 883.2  | 894.0  |
| 37.5°  | 758.8  | 788.0  | 824.8  | 861.7  | 872.5  |
| 40°    | 723.5  | 757.3  | 798.7  | 838.7  | 852.5  |
| 42.5°  | 689.7  | 723.5  | 772.6  | 817.2  | 831.0  |
| 45°    | 651.3  | 692.7  | 746.5  | 794.1  | 809.5  |
| 47.5°  | 614.4  | 658.9  | 720.4  | 769.5  | 786.4  |
| 50°    | 576.0  | 623.6  | 692.7  | 745.0  | 761.9  |
| 52.5°  | 539.1  | 589.8  | 663.6  | 717.3  | 735.7  |
| 55°    | 499.2  | 554.5  | 634.4  | 689.7  | 709.6  |
| 57.5°  | 460.8  | 522.2  | 602.1  | 662.0  | 682.0  |
| 60°    | 419.3  | 485.4  | 572.9  | 631.3  | 652.8  |
| 62.5°  | 382.5  | 451.6  | 539.1  | 602.1  | 622.1  |
| 65°    | 341.0  | 416.3  | 506.9  | 569.9  | 589.8  |
| 67.5°  | 304.1  | 382.5  | 474.6  | 537.6  | 559.1  |
| 70°    | 264.2  | 344.1  | 439.3  | 505.3  | 523.8  |
| 72.5°  | 227.3  | 310.3  | 407.0  | 471.6  | 494.6  |
| 75°    | 188.9  | 274.9  | 373.3  | 439.3  | 459.3  |
| 77.5°  | 152.1  | 241.2  | 341.0  | 407.0  | 428.5  |
| 80°    | 115.2  | 208.9  | 308.7  | 373.3  | 394.8  |
| 82.5°  | 84.5   | 176.6  | 278.0  | 342.5  | 362.5  |
| 85°    | 55.3   | 150.5  | 248.8  | 313.3  | 334.8  |
| 87.5°  | 33.8   | 126.0  | 224.3  | 287.2  | 307.2  |
| 90°    | 15.8   | 109.6  | 211.4  | 275.0  | 294.3  |
| 92.5°  | 24.6   | 104.3  | 199.3  | 260.0  | 279.0  |
| 95°    | 40.4   | 98.3   | 193.5  | 254.0  | 272.0  |
| 97.5°  | 61.4   | 91.9   | 187.9  | 246.0  | 265.0  |
| 100°   | 87.3   | 84.9   | 178.2  | 238.5  | 256.3  |
| 102.5° | 114.2  | 164.1  | 168.3  | 228.4  | 246.5  |
| 105°   | 139.1  | 196.5  | 158.5  | 217.0  | 235.6  |
| 107.5° | 169.8  | 217.4  | 148.5  | 205.6  | 224.2  |
| 110°   | 197.6  | 237.4  | 187.7  | 193.7  | 212.3  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 225.2 | 257.6 | 320.9 | 183.8 | 202.0 |
| 115°   | 254.6 | 278.8 | 358.8 | 204.8 | 190.5 |
| 117.5° | 278.6 | 299.5 | 371.4 | 355.7 | 257.8 |
| 120°   | 307.1 | 319.8 | 389.0 | 437.2 | 395.7 |
| 122.5° | 331.3 | 339.7 | 405.3 | 449.3 | 463.6 |
| 125°   | 354.5 | 360.1 | 417.4 | 461.9 | 477.0 |
| 127.5° | 376.9 | 381.4 | 429.4 | 472.1 | 486.3 |
| 130°   | 398.1 | 403.4 | 440.5 | 482.1 | 493.9 |
| 132.5° | 419.7 | 423.7 | 451.6 | 490.8 | 502.6 |
| 135°   | 436.3 | 443.2 | 462.5 | 499.1 | 510.4 |
| 137.5° | 455.3 | 460.5 | 472.5 | 506.0 | 515.5 |
| 140°   | 473.9 | 475.8 | 483.7 | 512.1 | 519.2 |
| 142.5° | 489.4 | 490.9 | 496.6 | 518.4 | 524.0 |
| 145°   | 504.3 | 503.9 | 511.3 | 523.5 | 529.0 |
| 147.5° | 518.6 | 517.3 | 524.7 | 528.3 | 531.2 |
| 150°   | 532.4 | 529.4 | 536.3 | 538.9 | 536.8 |
| 152.5° | 544.1 | 540.6 | 547.1 | 549.7 | 546.7 |
| 155°   | 555.3 | 551.4 | 556.6 | 559.2 | 555.8 |
| 157.5° | 564.4 | 561.0 | 564.8 | 567.9 | 564.4 |
| 160°   | 572.2 | 569.6 | 572.2 | 574.8 | 571.8 |
| 162.5° | 579.1 | 576.5 | 578.7 | 581.7 | 577.8 |
| 165°   | 585.2 | 582.6 | 583.9 | 586.9 | 583.9 |
| 167.5° | 589.9 | 587.3 | 588.6 | 591.6 | 587.7 |
| 170°   | 593.8 | 591.2 | 592.1 | 595.1 | 591.2 |
| 172.5° | 596.4 | 593.8 | 594.7 | 597.7 | 593.8 |
| 175°   | 598.6 | 595.5 | 596.4 | 599.4 | 595.1 |
| 177.5° | 599.4 | 596.4 | 596.8 | 599.9 | 596.0 |
| 180°   | 597.3 | 597.3 | 597.3 | 597.3 | 597.3 |

(END OF REPORT)