

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: P1029226

Luminaire Tested: S122DIW-B1005D435UB2750-4F0-XX-W2A-D1\_3500K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029226  
REPORT IS A COMBINATION OF REPORTS P985224 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-D1\_3500K  
Description: Define 2 Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

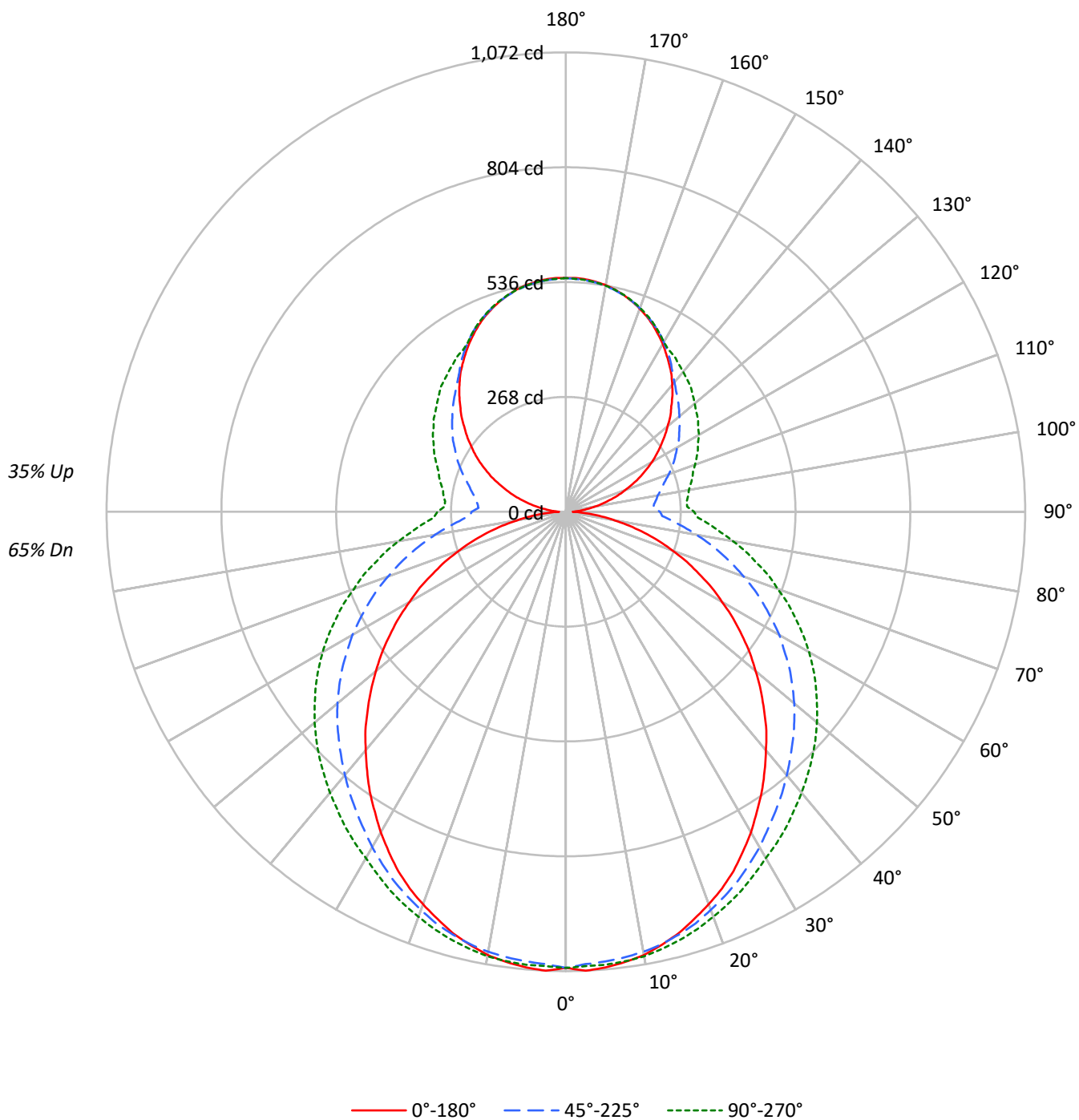
Lumens per Lamp: N/A  
Luminaire Lumens: 5587.0 lumens  
Efficiency: N/A  
Efficacy: 75.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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   | 111 | 111 | 111 | 111 |  | 104 | 104 | 104 | 104 |  | 91 | 91 | 91 |  | 80 | 80 | 80 |  | 70 | 70 | 70 |
| 1   | 99  | 94  | 89  | 85  |  | 93  | 88  | 84  | 80  |  | 77 | 74 | 71 |  | 68 | 65 | 63 |  | 58 | 57 | 55 |
| 2   | 89  | 81  | 74  | 68  |  | 84  | 76  | 70  | 64  |  | 67 | 62 | 57 |  | 58 | 54 | 51 |  | 50 | 47 | 45 |
| 3   | 81  | 70  | 62  | 56  |  | 76  | 66  | 59  | 53  |  | 58 | 52 | 47 |  | 51 | 46 | 42 |  | 44 | 40 | 37 |
| 4   | 74  | 62  | 53  | 47  |  | 69  | 58  | 50  | 44  |  | 51 | 45 | 40 |  | 45 | 40 | 36 |  | 39 | 35 | 32 |
| 5   | 68  | 55  | 46  | 40  |  | 63  | 52  | 44  | 38  |  | 46 | 39 | 34 |  | 40 | 35 | 31 |  | 35 | 31 | 27 |
| 6   | 62  | 49  | 41  | 34  |  | 58  | 47  | 39  | 33  |  | 41 | 35 | 30 |  | 36 | 31 | 27 |  | 32 | 27 | 24 |
| 7   | 58  | 44  | 36  | 30  |  | 54  | 42  | 34  | 29  |  | 37 | 31 | 26 |  | 33 | 27 | 23 |  | 29 | 24 | 21 |
| 8   | 54  | 40  | 32  | 26  |  | 50  | 38  | 31  | 25  |  | 34 | 28 | 23 |  | 30 | 25 | 21 |  | 26 | 22 | 19 |
| 9   | 50  | 37  | 29  | 23  |  | 47  | 35  | 28  | 23  |  | 31 | 25 | 21 |  | 28 | 22 | 19 |  | 24 | 20 | 17 |
| 10  | 47  | 34  | 26  | 21  |  | 44  | 32  | 25  | 20  |  | 29 | 23 | 19 |  | 26 | 20 | 17 |  | 23 | 18 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16847 | 16847 | 16847 |
| 5°  | 16924 | 16128 | 16037 |
| 10° | 16809 | 15569 | 15342 |
| 15° | 16572 | 14992 | 14631 |
| 20° | 16273 | 14385 | 13954 |
| 25° | 15978 | 13805 | 13340 |
| 30° | 15564 | 13214 | 12733 |
| 35° | 15146 | 12644 | 12286 |
| 40° | 14704 | 12153 | 11844 |
| 45° | 14283 | 11705 | 11458 |
| 50° | 13832 | 11295 | 11076 |
| 55° | 13358 | 10856 | 10688 |
| 60° | 12778 | 10401 | 10279 |
| 65° | 12172 | 9879  | 9810  |
| 70° | 11489 | 9316  | 9305  |
| 75° | 10612 | 8755  | 8828  |
| 80° | 9237  | 8169  | 8334  |
| 85° | 7840  | 7620  | 7908  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14283 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 100.9  | 1.8       |
| 10°-20°   | 289.4  | 5.2       |
| 20°-30°   | 438.5  | 7.8       |
| 30°-40°   | 533.9  | 9.6       |
| 40°-50°   | 574.5  | 10.3      |
| 50°-60°   | 557.9  | 10.0      |
| 60°-70°   | 487.2  | 8.7       |
| 70°-80°   | 375.0  | 6.7       |
| 80°-90°   | 252.7  | 4.5       |
| 90°-100°  | 207.0  | 3.7       |
| 100°-110° | 233.8  | 4.2       |
| 110°-120° | 267.0  | 4.8       |
| 120°-130° | 287.9  | 5.2       |
| 130°-140° | 290.4  | 5.2       |
| 140°-150° | 268.9  | 4.8       |
| 150°-160° | 222.8  | 4.0       |
| 160°-170° | 147.8  | 2.6       |
| 170°-180° | 51.6   | 0.9       |
| 0°-30°    | 828.7  | 14.8      |
| 0°-40°    | 1362.6 | 24.4      |
| 0°-60°    | 2495.0 | 44.7      |
| 0°-90°    | 3609.8 | 64.6      |
| 90°-120°  | 707.8  | 12.7      |
| 90°-150°  | 1554.9 | 27.8      |
| 90°-180°  | 1977.0 | 35.4      |
| 0°-180°   | 5587.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1064 | 1064  | 1064 | 1064  | 1064 |      |
| 5°   | 1067 | 1063  | 1054 | 1063  | 1061 | 101  |
| 15°  | 1018 | 1021  | 1021 | 1035  | 1034 | 287  |
| 25°  | 926  | 936   | 950  | 969   | 973  | 426  |
| 35°  | 798  | 824   | 853  | 887   | 898  | 498  |
| 45°  | 654  | 696   | 750  | 798   | 813  | 505  |
| 55°  | 501  | 557   | 637  | 693   | 713  | 448  |
| 65°  | 342  | 418   | 509  | 572   | 592  | 340  |
| 75°  | 190  | 276   | 375  | 441   | 461  | 201  |
| 85°  | 56   | 151   | 250  | 315   | 336  | 59   |
| 90°  | 16   | 111   | 220  | 280   | 299  | 12   |
| 95°  | 36   | 113   | 207  | 265   | 283  | 36   |
| 105° | 107  | 153   | 234  | 289   | 306  | 113  |
| 115° | 190  | 210   | 278  | 324   | 340  | 188  |
| 125° | 271  | 275   | 323  | 363   | 377  | 243  |
| 135° | 348  | 353   | 370  | 401   | 412  | 269  |
| 145° | 421  | 424   | 426  | 436   | 442  | 263  |
| 155° | 481  | 482   | 484  | 486   | 484  | 221  |
| 165° | 523  | 523   | 523  | 526   | 524  | 148  |
| 175° | 544  | 543   | 542  | 545   | 542  | 52   |
| 180° | 545  | 545   | 545  | 545   | 545  |      |

TEST NUMBER: P1029226

CATALOG NUMBER: S122DIW-B1005D435UB2750-4F0-XX-W2A-D1\_3500K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1064.3 | 1064.3 | 1064.3 | 1064.3 | 1064.3 |
| 2.5°   | 1072.0 | 1067.4 | 1056.6 | 1064.3 | 1061.2 |
| 5°     | 1067.4 | 1062.8 | 1053.5 | 1062.8 | 1061.2 |
| 7.5°   | 1059.7 | 1056.6 | 1048.9 | 1059.7 | 1058.1 |
| 10°    | 1050.4 | 1047.3 | 1042.7 | 1055.0 | 1053.5 |
| 12.5°  | 1035.0 | 1036.5 | 1033.5 | 1045.8 | 1044.2 |
| 15°    | 1018.0 | 1021.1 | 1021.1 | 1035.0 | 1033.5 |
| 17.5°  | 996.4  | 1002.6 | 1007.2 | 1021.1 | 1021.1 |
| 20°    | 974.8  | 982.6  | 988.7  | 1005.7 | 1005.7 |
| 22.5°  | 951.7  | 961.0  | 970.2  | 987.2  | 990.3  |
| 25°    | 925.5  | 936.3  | 950.2  | 968.7  | 973.3  |
| 27.5°  | 894.6  | 911.6  | 927.0  | 950.2  | 953.2  |
| 30°    | 863.8  | 883.8  | 903.9  | 928.6  | 933.2  |
| 32.5°  | 829.8  | 853.0  | 877.7  | 907.0  | 916.2  |
| 35°    | 797.5  | 823.7  | 853.0  | 886.9  | 897.7  |
| 37.5°  | 762.0  | 791.3  | 828.3  | 865.3  | 876.1  |
| 40°    | 726.5  | 760.4  | 802.1  | 842.2  | 856.1  |
| 42.5°  | 692.6  | 726.5  | 775.9  | 820.6  | 834.5  |
| 45°    | 654.0  | 695.7  | 749.6  | 797.5  | 812.9  |
| 47.5°  | 617.0  | 661.7  | 723.4  | 772.8  | 789.7  |
| 50°    | 578.4  | 626.2  | 695.7  | 748.1  | 765.1  |
| 52.5°  | 541.4  | 592.3  | 666.3  | 720.3  | 738.8  |
| 55°    | 501.3  | 556.8  | 637.0  | 692.6  | 712.6  |
| 57.5°  | 462.7  | 524.4  | 604.6  | 664.8  | 684.9  |
| 60°    | 421.1  | 487.4  | 575.3  | 634.0  | 655.5  |
| 62.5°  | 384.1  | 453.5  | 541.4  | 604.6  | 624.7  |
| 65°    | 342.4  | 418.0  | 509.0  | 572.3  | 592.3  |
| 67.5°  | 305.4  | 384.1  | 476.6  | 539.9  | 561.5  |
| 70°    | 265.3  | 345.5  | 441.1  | 507.5  | 526.0  |
| 72.5°  | 228.3  | 311.6  | 408.8  | 473.5  | 496.7  |
| 75°    | 189.7  | 276.1  | 374.8  | 441.1  | 461.2  |
| 77.5°  | 152.7  | 242.2  | 342.4  | 408.8  | 430.3  |
| 80°    | 115.7  | 209.8  | 310.0  | 374.8  | 396.4  |
| 82.5°  | 84.8   | 177.4  | 279.2  | 344.0  | 364.0  |
| 85°    | 55.5   | 151.2  | 249.9  | 314.7  | 336.3  |
| 87.5°  | 33.9   | 126.5  | 225.2  | 288.4  | 308.5  |
| 90°    | 15.9   | 110.9  | 219.7  | 280.5  | 299.4  |
| 92.5°  | 24.0   | 109.4  | 204.0  | 264.6  | 283.1  |
| 95°    | 36.2   | 113.3  | 206.8  | 265.4  | 283.0  |
| 97.5°  | 50.8   | 121.3  | 212.6  | 269.7  | 288.2  |
| 100°   | 69.2   | 130.0  | 217.7  | 274.8  | 291.3  |
| 102.5° | 87.1   | 140.7  | 225.8  | 281.8  | 298.3  |
| 105°   | 106.6  | 152.7  | 233.9  | 288.8  | 305.8  |
| 107.5° | 127.8  | 166.6  | 243.8  | 296.7  | 311.4  |
| 110°   | 146.5  | 180.1  | 255.7  | 305.1  | 320.6  |

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CATALOG NUMBER: S122DIW-B1005D435UB2750-4F0-XX-W2A-D1\_3500K

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 168.6 | 196.0 | 266.5 | 314.5 | 330.5 |
| 115°   | 190.3 | 209.9 | 278.4 | 324.2 | 339.9 |
| 117.5° | 210.3 | 226.4 | 288.9 | 333.7 | 347.7 |
| 120°   | 231.9 | 241.8 | 299.8 | 343.0 | 358.6 |
| 122.5° | 251.7 | 257.9 | 312.6 | 352.9 | 365.9 |
| 125°   | 270.9 | 275.0 | 323.0 | 363.3 | 376.7 |
| 127.5° | 291.1 | 294.6 | 334.5 | 371.2 | 383.6 |
| 130°   | 310.0 | 314.4 | 345.9 | 382.1 | 392.5 |
| 132.5° | 331.2 | 334.2 | 357.8 | 391.0 | 402.0 |
| 135°   | 348.0 | 353.0 | 369.5 | 401.4 | 412.3 |
| 137.5° | 368.2 | 372.4 | 381.1 | 409.9 | 418.9 |
| 140°   | 386.2 | 388.8 | 394.2 | 418.9 | 426.3 |
| 142.5° | 404.6 | 407.2 | 408.6 | 427.6 | 433.4 |
| 145°   | 420.6 | 423.8 | 426.5 | 436.3 | 442.2 |
| 147.5° | 436.2 | 440.4 | 442.2 | 444.6 | 447.5 |
| 150°   | 452.3 | 455.1 | 456.9 | 458.3 | 456.9 |
| 152.5° | 466.6 | 469.3 | 471.6 | 473.5 | 471.6 |
| 155°   | 480.8 | 482.2 | 483.6 | 485.9 | 484.5 |
| 157.5° | 493.3 | 494.2 | 495.1 | 498.3 | 496.0 |
| 160°   | 504.3 | 505.2 | 505.7 | 508.5 | 506.6 |
| 162.5° | 514.4 | 514.4 | 514.9 | 518.1 | 515.8 |
| 165°   | 523.2 | 522.7 | 522.7 | 525.9 | 523.6 |
| 167.5° | 531.0 | 529.6 | 529.6 | 532.8 | 530.5 |
| 170°   | 537.0 | 535.6 | 535.1 | 538.4 | 535.6 |
| 172.5° | 541.1 | 539.7 | 539.3 | 542.5 | 539.7 |
| 175°   | 544.3 | 543.0 | 542.0 | 545.3 | 542.5 |
| 177.5° | 546.2 | 544.8 | 543.9 | 546.6 | 543.9 |
| 180°   | 545.3 | 545.3 | 545.3 | 545.3 | 545.3 |

(END OF REPORT)