

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: P999809

Luminaire Tested: SA2XXRDIP-B485D725UB35-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999809  
REPORT IS A COMBINATION OF REPORTS P988364 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B485D725UB35-4F0-XX-W2A-F1  
Description: Define 2 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

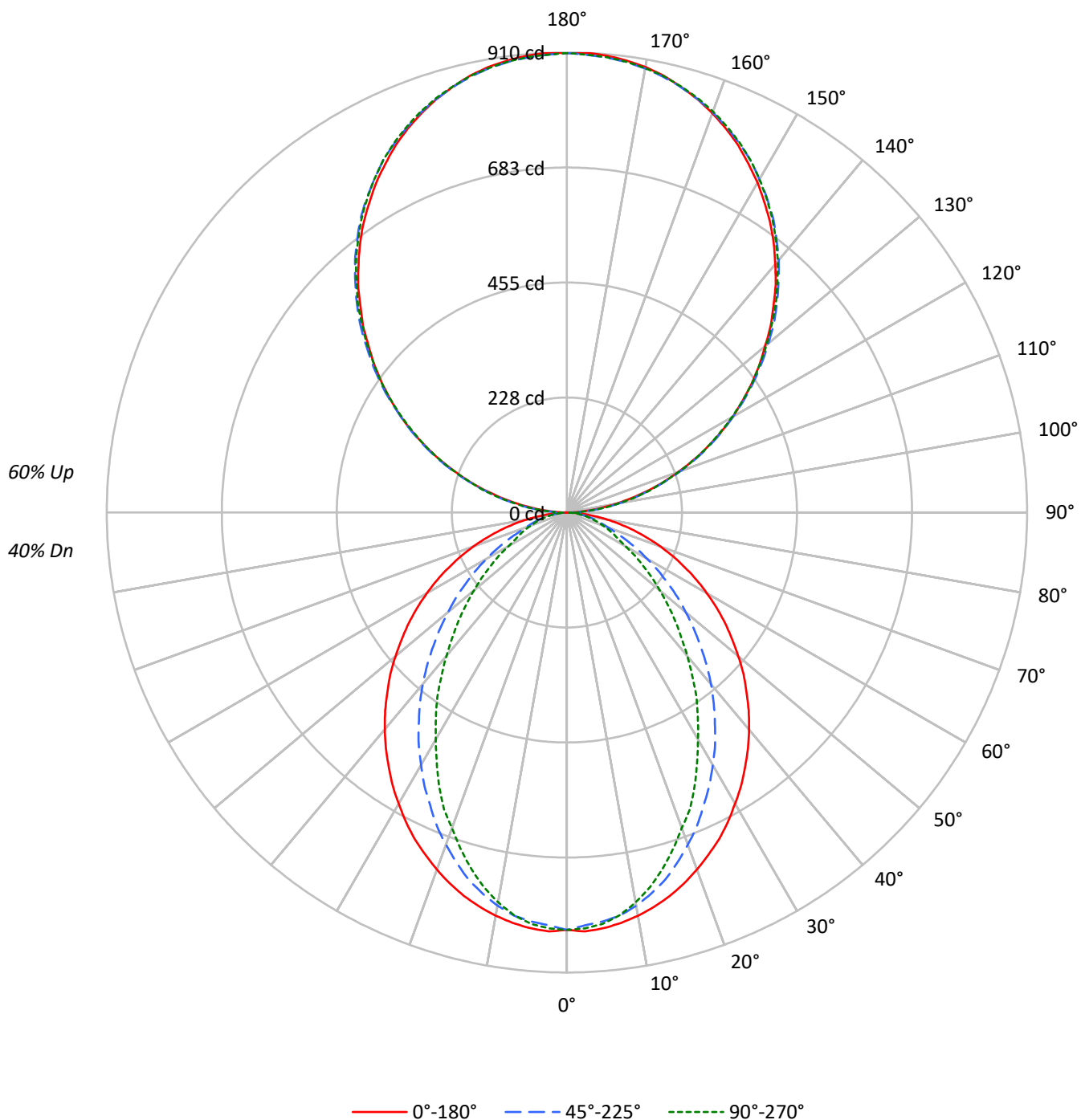
Lumens per Lamp: N/A  
Luminaire Lumens: 4241.0 lumens  
Efficiency: N/A  
Efficacy: 94.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 |
| 1   | 96  | 92  | 88  | 85  | 87 | 84 | 81 | 78 | 69 | 67 | 65 | 55 | 53 | 52 | 42 | 41 | 40 |
| 2   | 88  | 81  | 75  | 70  | 80 | 74 | 69 | 64 | 61 | 57 | 54 | 49 | 46 | 44 | 38 | 36 | 35 |
| 3   | 80  | 71  | 64  | 59  | 73 | 65 | 59 | 54 | 54 | 49 | 46 | 43 | 40 | 38 | 34 | 32 | 30 |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 51 | 46 | 48 | 43 | 39 | 39 | 35 | 33 | 30 | 28 | 26 |
| 5   | 68  | 56  | 49  | 43  | 61 | 52 | 45 | 40 | 43 | 38 | 34 | 35 | 31 | 28 | 27 | 25 | 23 |
| 6   | 62  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 25 | 22 | 20 |
| 7   | 58  | 46  | 38  | 33  | 52 | 42 | 35 | 31 | 35 | 30 | 26 | 29 | 25 | 22 | 23 | 20 | 18 |
| 8   | 54  | 42  | 34  | 29  | 49 | 38 | 32 | 27 | 32 | 27 | 24 | 27 | 23 | 20 | 21 | 18 | 16 |
| 9   | 50  | 38  | 31  | 26  | 45 | 35 | 29 | 24 | 30 | 25 | 21 | 24 | 21 | 18 | 20 | 17 | 15 |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 27 | 22 | 19 | 23 | 19 | 16 | 18 | 16 | 14 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13069 | 13069 | 13069 |
| 5°  | 13090 | 12434 | 12342 |
| 10° | 12961 | 11793 | 11403 |
| 15° | 12784 | 11036 | 10334 |
| 20° | 12548 | 10176 | 9216  |
| 25° | 12306 | 9292  | 8192  |
| 30° | 11982 | 8432  | 7075  |
| 35° | 11665 | 7564  | 6115  |
| 40° | 11342 | 6713  | 5127  |
| 45° | 10966 | 5834  | 4265  |
| 50° | 10577 | 4986  | 3472  |
| 55° | 10174 | 4138  | 2757  |
| 60° | 9704  | 3310  | 2086  |
| 65° | 9165  | 2523  | 1696  |
| 70° | 8510  | 1831  | 1348  |
| 75° | 7692  | 1397  | 1030  |
| 80° | 6499  | 946   | 692   |
| 85° | 4534  | 433   | 334   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 10966 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.4   | 1.8       |
| 10°-20°   | 212.4  | 5.0       |
| 20°-30°   | 298.2  | 7.0       |
| 30°-40°   | 325.1  | 7.7       |
| 40°-50°   | 298.8  | 7.0       |
| 50°-60°   | 234.7  | 5.5       |
| 60°-70°   | 152.7  | 3.6       |
| 70°-80°   | 78.6   | 1.9       |
| 80°-90°   | 22.7   | 0.5       |
| 90°-100°  | 56.2   | 1.3       |
| 100°-110° | 178.7  | 4.2       |
| 110°-120° | 305.8  | 7.2       |
| 120°-130° | 402.1  | 9.5       |
| 130°-140° | 451.4  | 10.6      |
| 140°-150° | 442.6  | 10.4      |
| 150°-160° | 371.3  | 8.8       |
| 160°-170° | 246.2  | 5.8       |
| 170°-180° | 86.1   | 2.0       |
| 0°-30°    | 588.0  | 13.9      |
| 0°-40°    | 913.1  | 21.5      |
| 0°-60°    | 1446.5 | 34.1      |
| 0°-90°    | 1700.6 | 40.1      |
| 90°-120°  | 540.7  | 12.7      |
| 90°-150°  | 1836.8 | 43.3      |
| 90°-180°  | 2540.0 | 59.9      |
| 0°-180°   | 4241.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 826 | 826   | 826 | 826   | 826 |      |
| 5°   | 826 | 822   | 812 | 819   | 817 | 78   |
| 15°  | 785 | 777   | 752 | 738   | 730 | 221  |
| 25°  | 713 | 689   | 640 | 609   | 598 | 328  |
| 35°  | 614 | 576   | 510 | 463   | 447 | 384  |
| 45°  | 502 | 452   | 374 | 320   | 303 | 388  |
| 55°  | 382 | 324   | 243 | 198   | 184 | 341  |
| 65°  | 258 | 197   | 130 | 105   | 102 | 256  |
| 75°  | 138 | 85    | 60  | 54    | 54  | 145  |
| 85°  | 32  | 16    | 14  | 14    | 14  | 37   |
| 90°  | 1   | 10    | 27  | 25    | 26  | 4    |
| 95°  | 40  | 48    | 49  | 49    | 48  | 45   |
| 105° | 165 | 167   | 169 | 170   | 170 | 174  |
| 115° | 307 | 311   | 310 | 309   | 307 | 303  |
| 125° | 446 | 453   | 451 | 449   | 448 | 399  |
| 135° | 577 | 586   | 587 | 587   | 584 | 446  |
| 145° | 701 | 706   | 711 | 712   | 708 | 438  |
| 155° | 801 | 804   | 806 | 810   | 807 | 369  |
| 165° | 872 | 871   | 871 | 876   | 873 | 246  |
| 175° | 907 | 905   | 903 | 909   | 904 | 86   |
| 180° | 909 | 909   | 909 | 909   | 909 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 825.6 | 825.6 | 825.6 | 825.6 | 825.6 |
| 2.5°   | 829.4 | 825.6 | 817.4 | 824.9 | 823.4 |
| 5°     | 825.6 | 821.9 | 812.2 | 818.9 | 816.7 |
| 7.5°   | 818.9 | 814.4 | 804.0 | 806.9 | 803.2 |
| 10°    | 809.9 | 804.7 | 789.8 | 787.5 | 783.0 |
| 12.5°  | 798.7 | 792.0 | 771.8 | 767.3 | 759.1 |
| 15°    | 785.3 | 777.1 | 751.7 | 737.5 | 730.0 |
| 17.5°  | 769.6 | 757.6 | 726.2 | 709.8 | 697.9 |
| 20°    | 751.7 | 736.7 | 699.4 | 680.7 | 664.2 |
| 22.5°  | 732.2 | 715.0 | 671.7 | 646.3 | 635.1 |
| 25°    | 712.8 | 688.9 | 639.6 | 608.9 | 597.7 |
| 27.5°  | 689.6 | 664.2 | 609.7 | 574.6 | 557.4 |
| 30°    | 665.0 | 636.6 | 576.8 | 538.7 | 518.5 |
| 32.5°  | 641.1 | 606.7 | 545.4 | 500.6 | 481.9 |
| 35°    | 614.2 | 576.1 | 510.3 | 463.2 | 446.8 |
| 37.5°  | 588.0 | 546.9 | 477.4 | 425.9 | 407.2 |
| 40°    | 560.4 | 515.5 | 443.1 | 390.0 | 370.6 |
| 42.5°  | 532.0 | 484.2 | 408.7 | 353.4 | 334.7 |
| 45°    | 502.1 | 452.0 | 373.6 | 320.5 | 302.6 |
| 47.5°  | 473.7 | 420.7 | 340.0 | 286.9 | 270.5 |
| 50°    | 442.3 | 389.3 | 307.1 | 255.5 | 239.8 |
| 52.5°  | 411.7 | 355.7 | 275.7 | 226.4 | 212.2 |
| 55°    | 381.8 | 323.5 | 242.8 | 198.0 | 183.8 |
| 57.5°  | 351.2 | 291.4 | 213.7 | 171.8 | 159.9 |
| 60°    | 319.8 | 260.0 | 183.1 | 145.0 | 133.0 |
| 62.5°  | 289.2 | 229.4 | 156.9 | 121.0 | 115.1 |
| 65°    | 257.8 | 197.3 | 130.0 | 104.6 | 102.4 |
| 67.5°  | 227.9 | 167.4 | 104.6 | 91.9  | 89.7  |
| 70°    | 196.5 | 138.2 | 86.7  | 79.2  | 76.2  |
| 72.5°  | 166.6 | 111.3 | 72.5  | 66.5  | 65.0  |
| 75°    | 137.5 | 85.2  | 59.8  | 54.5  | 53.8  |
| 77.5°  | 108.3 | 60.5  | 47.1  | 44.1  | 42.6  |
| 80°    | 81.4  | 43.3  | 35.9  | 32.9  | 32.9  |
| 82.5°  | 56.8  | 29.1  | 24.7  | 23.2  | 23.2  |
| 85°    | 32.1  | 16.4  | 14.2  | 14.2  | 14.2  |
| 87.5°  | 12.0  | 6.0   | 6.0   | 5.2   | 5.2   |
| 90°    | 0.8   | 10.0  | 26.8  | 25.3  | 26.1  |
| 92.5°  | 16.9  | 23.0  | 23.8  | 24.5  | 24.5  |
| 95°    | 39.9  | 47.5  | 49.1  | 49.1  | 47.5  |
| 97.5°  | 66.7  | 73.6  | 76.7  | 76.7  | 76.7  |
| 100°   | 97.4  | 103.5 | 105.8 | 105.8 | 105.1 |
| 102.5° | 129.6 | 134.2 | 137.3 | 138.0 | 137.3 |
| 105°   | 164.9 | 167.2 | 168.7 | 170.2 | 170.2 |
| 107.5° | 200.1 | 203.2 | 203.2 | 204.0 | 200.1 |
| 110°   | 233.9 | 238.5 | 238.5 | 238.5 | 236.2 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 270.7 | 275.3 | 274.5 | 272.2 | 270.7 |
| 115°   | 306.7 | 311.3 | 309.8 | 309.0 | 306.7 |
| 117.5° | 342.8 | 348.9 | 345.1 | 342.8 | 340.5 |
| 120°   | 378.8 | 384.9 | 378.8 | 378.8 | 376.5 |
| 122.5° | 411.8 | 419.4 | 415.6 | 413.3 | 411.8 |
| 125°   | 446.3 | 453.2 | 450.9 | 448.6 | 447.8 |
| 127.5° | 480.0 | 488.4 | 485.4 | 482.3 | 480.0 |
| 130°   | 511.5 | 521.4 | 519.9 | 518.4 | 515.3 |
| 132.5° | 546.7 | 554.4 | 555.2 | 551.3 | 549.0 |
| 135°   | 577.4 | 585.8 | 587.4 | 586.6 | 584.3 |
| 137.5° | 611.1 | 618.0 | 619.6 | 618.8 | 615.7 |
| 140°   | 641.0 | 647.9 | 651.8 | 651.8 | 648.7 |
| 142.5° | 671.7 | 678.6 | 680.9 | 681.7 | 678.6 |
| 145°   | 700.8 | 706.2 | 710.8 | 711.6 | 708.5 |
| 147.5° | 726.9 | 733.8 | 736.9 | 738.4 | 735.4 |
| 150°   | 753.8 | 758.4 | 761.4 | 763.7 | 761.4 |
| 152.5° | 777.5 | 782.1 | 786.0 | 789.0 | 786.0 |
| 155°   | 801.3 | 803.6 | 805.9 | 809.7 | 807.4 |
| 157.5° | 822.0 | 823.5 | 825.1 | 830.4 | 826.6 |
| 160°   | 840.4 | 841.9 | 842.7 | 847.3 | 844.2 |
| 162.5° | 857.3 | 857.3 | 858.0 | 863.4 | 859.6 |
| 165°   | 871.8 | 871.1 | 871.1 | 876.4 | 872.6 |
| 167.5° | 884.9 | 882.6 | 882.6 | 887.9 | 884.1 |
| 170°   | 894.8 | 892.5 | 891.8 | 897.1 | 892.5 |
| 172.5° | 901.7 | 899.4 | 898.7 | 904.0 | 899.4 |
| 175°   | 907.1 | 904.8 | 903.3 | 908.7 | 904.0 |
| 177.5° | 910.2 | 907.9 | 906.3 | 911.0 | 906.3 |
| 180°   | 908.7 | 908.7 | 908.7 | 908.7 | 908.7 |

(END OF REPORT)