

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: P999692

Luminaire Tested: SA2XXRDIP-B485D1080UB35-4F0-XX-W2A-F4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999692  
REPORT IS A COMBINATION OF REPORTS P988245 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B485D1080UB35-4F0-XX-W2A-F4  
Description: Define 2 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

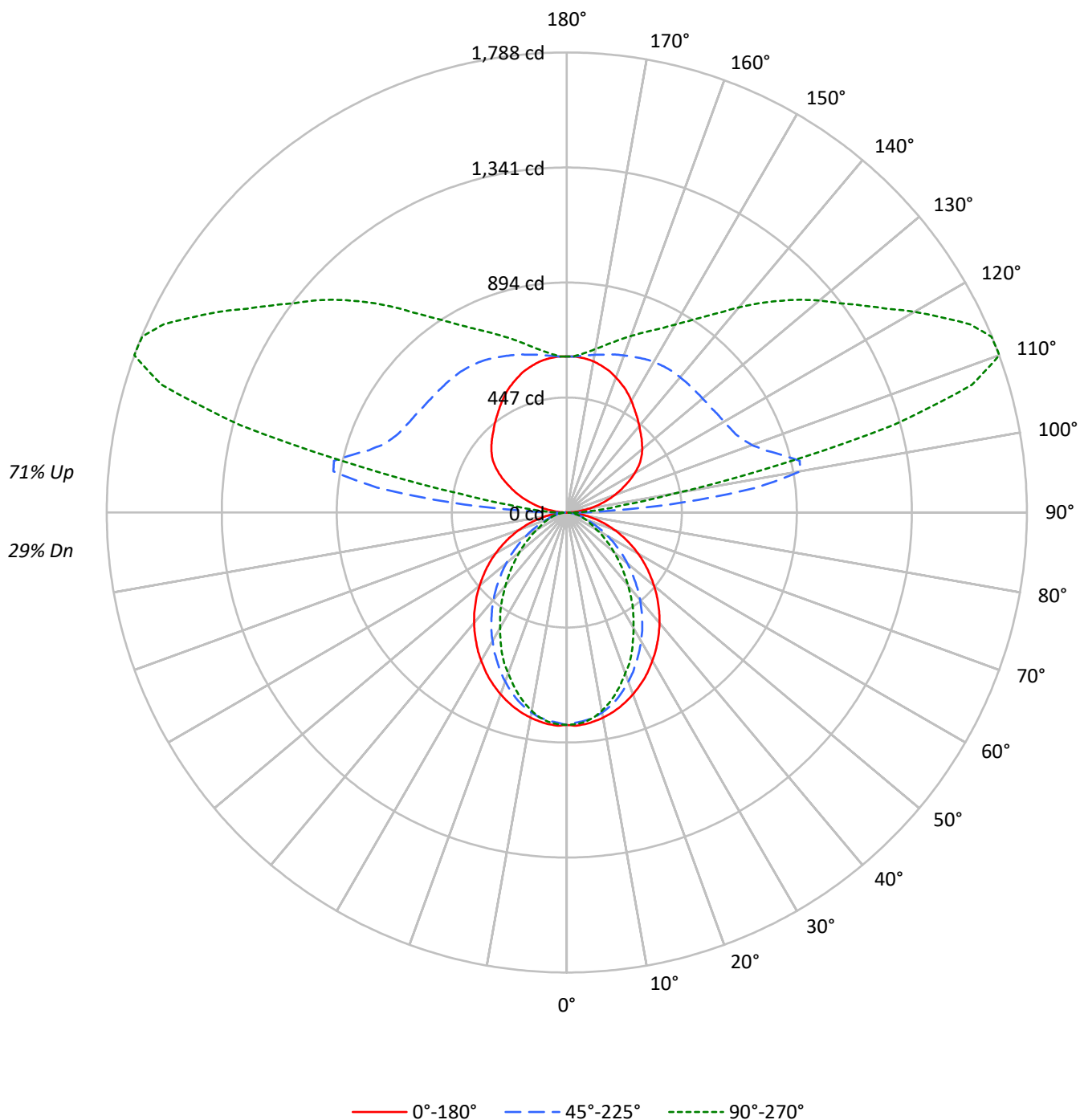
Lumens per Lamp: N/A  
Luminaire Lumens: 5928.9 lumens  
Efficiency: N/A  
Efficacy: 100.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 59  
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   | 102 | 102 | 102 | 102 | 91 | 91 | 91 | 91 | 72 | 72 | 72 | 53 | 53 | 53 | 37 | 37 | 37 |
| 1   | 93  | 89  | 86  | 82  | 83 | 80 | 77 | 74 | 63 | 61 | 59 | 47 | 46 | 45 | 33 | 32 | 31 |
| 2   | 85  | 78  | 72  | 68  | 76 | 70 | 65 | 61 | 55 | 52 | 49 | 42 | 40 | 38 | 29 | 28 | 27 |
| 3   | 78  | 69  | 62  | 56  | 69 | 62 | 56 | 51 | 49 | 45 | 42 | 37 | 34 | 32 | 26 | 24 | 23 |
| 4   | 71  | 61  | 54  | 48  | 64 | 55 | 49 | 44 | 44 | 39 | 36 | 33 | 30 | 28 | 23 | 22 | 20 |
| 5   | 65  | 54  | 47  | 41  | 58 | 49 | 43 | 38 | 39 | 34 | 31 | 30 | 27 | 24 | 21 | 19 | 18 |
| 6   | 60  | 49  | 41  | 36  | 54 | 44 | 37 | 33 | 35 | 30 | 27 | 27 | 24 | 21 | 19 | 17 | 16 |
| 7   | 56  | 44  | 36  | 31  | 50 | 40 | 33 | 29 | 32 | 27 | 24 | 25 | 21 | 19 | 18 | 16 | 14 |
| 8   | 52  | 40  | 32  | 27  | 46 | 36 | 30 | 25 | 29 | 24 | 21 | 22 | 19 | 17 | 16 | 14 | 13 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 27 | 22 | 27 | 22 | 19 | 21 | 17 | 15 | 15 | 13 | 11 |
| 10  | 45  | 33  | 26  | 22  | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 14 | 14 | 12 | 10 |

**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   | 1.3       |
| 10°-20°   | 212.4  | 3.6       |
| 20°-30°   | 298.2  | 5.0       |
| 30°-40°   | 325.1  | 5.5       |
| 40°-50°   | 298.8  | 5.0       |
| 50°-60°   | 234.7  | 4.0       |
| 60°-70°   | 152.7  | 2.6       |
| 70°-80°   | 78.6   | 1.3       |
| 80°-90°   | 24.0   | 0.4       |
| 90°-100°  | 245.8  | 4.1       |
| 100°-110° | 830.9  | 14.0      |
| 110°-120° | 873.4  | 14.7      |
| 120°-130° | 718.2  | 12.1      |
| 130°-140° | 577.1  | 9.7       |
| 140°-150° | 436.0  | 7.4       |
| 150°-160° | 306.5  | 5.2       |
| 160°-170° | 180.5  | 3.0       |
| 170°-180° | 58.7   | 1.0       |
| 0°-30°    | 588.0  | 9.9       |
| 0°-40°    | 913.1  | 15.4      |
| 0°-60°    | 1446.5 | 24.4      |
| 0°-90°    | 1701.9 | 28.7      |
| 90°-120°  | 1950.0 | 32.9      |
| 90°-150°  | 3681.3 | 62.1      |
| 90°-180°  | 4227.0 | 71.3      |
| 0°-180°   | 5928.9 | 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   | 16    | 40  | 38    | 38   | 4    |
| 95°  | 41  | 100   | 457 | 173   | 133  | 42   |
| 105° | 142 | 215   | 864 | 1544  | 1314 | 151  |
| 115° | 251 | 317   | 723 | 1492  | 1729 | 249  |
| 125° | 350 | 414   | 695 | 1208  | 1403 | 311  |
| 135° | 410 | 490   | 687 | 1016  | 1162 | 317  |
| 145° | 469 | 539   | 683 | 848   | 928  | 294  |
| 155° | 533 | 575   | 663 | 750   | 780  | 245  |
| 165° | 581 | 598   | 635 | 674   | 684  | 164  |
| 175° | 605 | 606   | 611 | 618   | 617  | 57   |
| 180° | 606 | 606   | 606 | 606   | 606  |      |

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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°    | 1.2   | 15.8  | 39.6  | 37.9   | 38.5   |
| 92.5°  | 17.5  | 55.4  | 179.6 | 82.8   | 71.1   |
| 95°    | 40.8  | 100.3 | 457.0 | 172.6  | 132.9  |
| 97.5°  | 60.6  | 132.4 | 745.0 | 346.3  | 222.7  |
| 100°   | 89.8  | 162.0 | 921.1 | 689.7  | 417.4  |
| 102.5° | 116.6 | 188.9 | 926.9 | 1165.9 | 813.8  |
| 105°   | 142.2 | 214.6 | 863.9 | 1544.2 | 1314.0 |
| 107.5° | 170.2 | 240.2 | 805.6 | 1681.2 | 1650.9 |
| 110°   | 198.2 | 266.4 | 766.0 | 1659.1 | 1788.5 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 223.9 | 291.5 | 740.4 | 1583.8 | 1786.2 |
| 115°   | 250.7 | 316.6 | 722.9 | 1491.8 | 1729.0 |
| 117.5° | 278.7 | 341.6 | 713.5 | 1403.8 | 1642.8 |
| 120°   | 304.3 | 366.1 | 705.4 | 1325.0 | 1560.0 |
| 122.5° | 328.8 | 391.2 | 700.7 | 1263.8 | 1473.7 |
| 125°   | 349.8 | 413.9 | 694.9 | 1208.4 | 1402.6 |
| 127.5° | 367.3 | 435.5 | 691.4 | 1161.2 | 1336.1 |
| 130°   | 382.4 | 454.7 | 689.1 | 1113.4 | 1281.3 |
| 132.5° | 396.4 | 473.4 | 687.9 | 1063.9 | 1224.2 |
| 135°   | 410.4 | 489.7 | 686.7 | 1015.6 | 1162.4 |
| 137.5° | 423.2 | 503.6 | 686.7 | 966.6  | 1103.0 |
| 140°   | 438.4 | 516.5 | 685.6 | 923.4  | 1041.2 |
| 142.5° | 453.5 | 527.0 | 685.6 | 882.0  | 979.4  |
| 145°   | 468.7 | 538.6 | 683.2 | 848.2  | 928.1  |
| 147.5° | 485.0 | 548.0 | 679.7 | 818.4  | 882.6  |
| 150°   | 501.3 | 557.3 | 676.2 | 792.8  | 843.0  |
| 152.5° | 517.7 | 566.6 | 670.4 | 771.2  | 809.1  |
| 155°   | 532.8 | 575.4 | 663.4 | 750.3  | 780.0  |
| 157.5° | 545.6 | 582.4 | 656.4 | 730.4  | 754.3  |
| 160°   | 558.5 | 589.4 | 649.4 | 710.6  | 729.9  |
| 162.5° | 571.3 | 594.6 | 643.6 | 692.0  | 706.5  |
| 165°   | 580.6 | 598.1 | 635.4 | 673.9  | 684.4  |
| 167.5° | 588.8 | 601.6 | 628.4 | 657.6  | 663.4  |
| 170°   | 596.9 | 603.4 | 622.6 | 642.4  | 644.7  |
| 172.5° | 601.6 | 605.1 | 615.6 | 629.0  | 629.6  |
| 175°   | 605.1 | 605.7 | 610.9 | 618.5  | 616.8  |
| 177.5° | 607.4 | 606.3 | 606.3 | 610.9  | 607.4  |
| 180°   | 606.3 | 606.3 | 606.3 | 606.3  | 606.3  |

(END OF REPORT)