

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: P1001890

Luminaire Tested: SA4XXDIP-B795D590UB2750-4F0-XX-W2A-D\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1001890  
REPORT IS A COMBINATION OF REPORTS P996515 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B795D590UB2750-4F0-XX-W2A-D\_3500K  
Description: Define 4 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

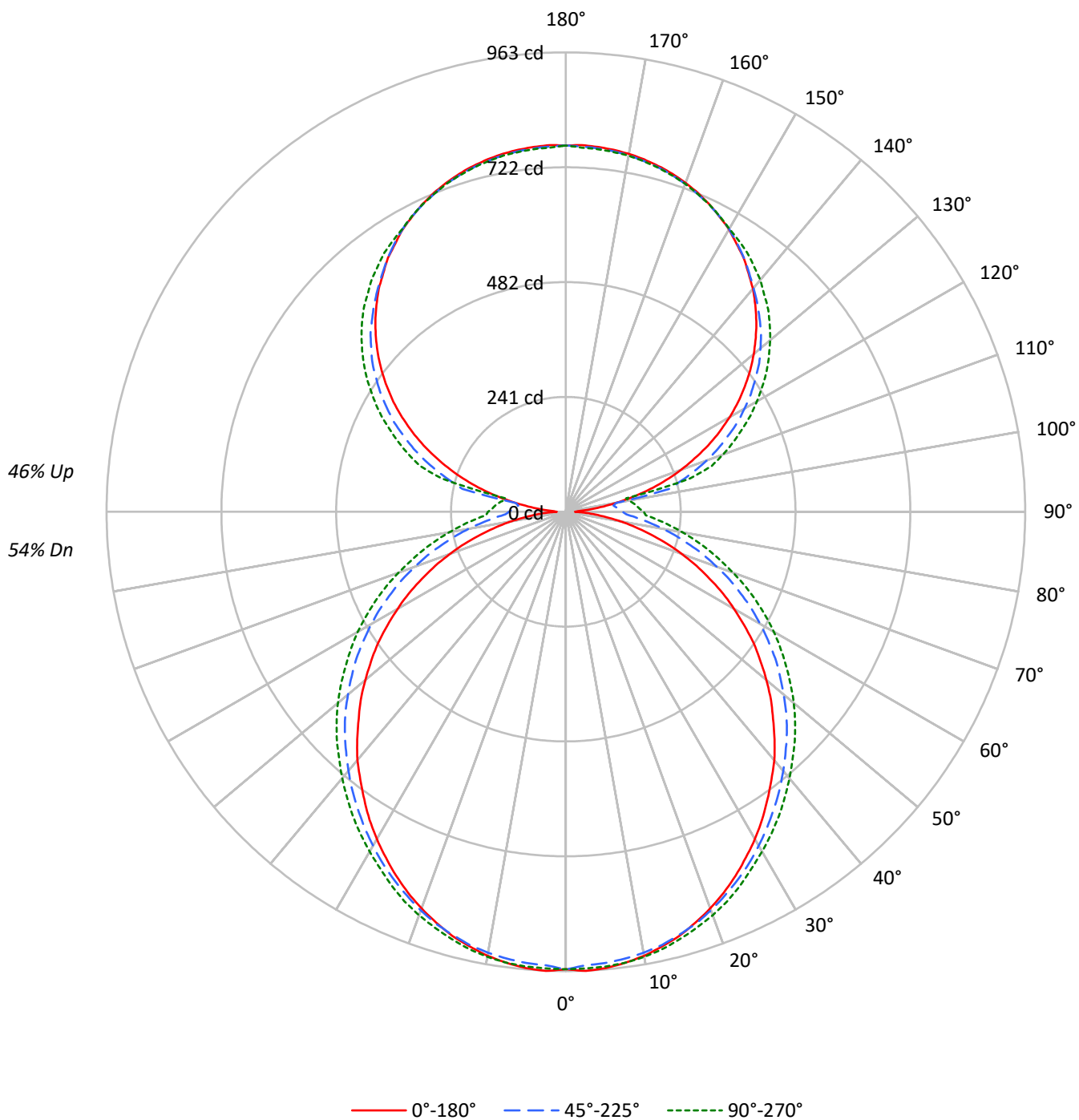
Lumens per Lamp: N/A  
Luminaire Lumens: 5647.0 lumens  
Efficiency: N/A  
Efficacy: 110.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 51.3  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 59 | 59 | 59 |
| 1   | 98  | 93  | 88  | 84  | 90  | 86  | 82  | 79  | 73 | 70 | 68 | 62 | 60 | 58 | 51 | 49 | 48 |
| 2   | 88  | 80  | 74  | 68  | 81  | 74  | 69  | 64  | 63 | 59 | 55 | 53 | 50 | 47 | 44 | 42 | 40 |
| 3   | 80  | 70  | 62  | 56  | 74  | 65  | 58  | 53  | 56 | 50 | 46 | 47 | 43 | 39 | 39 | 36 | 33 |
| 4   | 73  | 62  | 54  | 47  | 67  | 57  | 50  | 44  | 49 | 43 | 39 | 41 | 37 | 33 | 34 | 31 | 28 |
| 5   | 67  | 55  | 46  | 40  | 62  | 51  | 44  | 38  | 44 | 38 | 33 | 37 | 32 | 29 | 31 | 27 | 24 |
| 6   | 62  | 49  | 41  | 35  | 57  | 46  | 38  | 33  | 39 | 33 | 29 | 33 | 29 | 25 | 28 | 24 | 21 |
| 7   | 57  | 44  | 36  | 30  | 53  | 41  | 34  | 29  | 36 | 30 | 25 | 30 | 26 | 22 | 25 | 22 | 19 |
| 8   | 53  | 40  | 32  | 27  | 49  | 38  | 30  | 25  | 32 | 27 | 22 | 28 | 23 | 20 | 23 | 20 | 17 |
| 9   | 49  | 37  | 29  | 24  | 46  | 34  | 27  | 22  | 30 | 24 | 20 | 25 | 21 | 18 | 21 | 18 | 15 |
| 10  | 46  | 34  | 26  | 21  | 43  | 31  | 25  | 20  | 27 | 22 | 18 | 24 | 19 | 16 | 20 | 16 | 14 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7821 | 7821 | 7821 |
| 5°  | 7843 | 7617 | 7631 |
| 10° | 7791 | 7467 | 7446 |
| 15° | 7718 | 7299 | 7237 |
| 20° | 7611 | 7116 | 7034 |
| 25° | 7489 | 6915 | 6816 |
| 30° | 7357 | 6715 | 6593 |
| 35° | 7208 | 6512 | 6395 |
| 40° | 7089 | 6317 | 6190 |
| 45° | 6911 | 6133 | 6008 |
| 50° | 6761 | 5924 | 5816 |
| 55° | 6605 | 5723 | 5595 |
| 60° | 6364 | 5473 | 5387 |
| 65° | 6097 | 5203 | 5138 |
| 70° | 5774 | 4896 | 4849 |
| 75° | 5323 | 4553 | 4573 |
| 80° | 4816 | 4204 | 4286 |
| 85° | 4141 | 3854 | 4052 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6911 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 90.9   | 1.6       |
| 10°-20°   | 260.4  | 4.6       |
| 20°-30°   | 393.7  | 7.0       |
| 30°-40°   | 476.3  | 8.4       |
| 40°-50°   | 503.5  | 8.9       |
| 50°-60°   | 473.9  | 8.4       |
| 60°-70°   | 393.2  | 7.0       |
| 70°-80°   | 276.0  | 4.9       |
| 80°-90°   | 157.2  | 2.8       |
| 90°-100°  | 118.1  | 2.1       |
| 100°-110° | 236.4  | 4.2       |
| 110°-120° | 366.5  | 6.5       |
| 120°-130° | 432.7  | 7.7       |
| 130°-140° | 446.4  | 7.9       |
| 140°-150° | 409.2  | 7.2       |
| 150°-160° | 328.2  | 5.8       |
| 160°-170° | 211.6  | 3.7       |
| 170°-180° | 72.9   | 1.3       |
| <hr/>     |        |           |
| 0°-30°    | 744.9  | 13.2      |
| 0°-40°    | 1221.2 | 21.6      |
| 0°-60°    | 2198.6 | 38.9      |
| 0°-90°    | 3025.0 | 53.6      |
| 90°-120°  | 721.0  | 12.8      |
| 90°-150°  | 2009.3 | 35.6      |
| 90°-180°  | 2622.0 | 46.4      |
| 0°-180°   | 5647.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 959 | 959   | 959 | 959   | 959 |      |
| 5°   | 960 | 957   | 949 | 958   | 957 | 91   |
| 15°  | 920 | 922   | 918 | 928   | 927 | 259  |
| 25°  | 842 | 848   | 852 | 864   | 865 | 388  |
| 35°  | 737 | 750   | 760 | 776   | 779 | 461  |
| 45°  | 614 | 635   | 655 | 673   | 679 | 475  |
| 55°  | 481 | 504   | 536 | 557   | 564 | 429  |
| 65°  | 333 | 367   | 404 | 431   | 439 | 330  |
| 75°  | 185 | 224   | 270 | 300   | 309 | 196  |
| 85°  | 57  | 102   | 150 | 183   | 193 | 59   |
| 90°  | 19  | 68    | 119 | 154   | 163 | 13   |
| 95°  | 46  | 62    | 106 | 138   | 149 | 50   |
| 105° | 182 | 207   | 250 | 282   | 270 | 192  |
| 115° | 329 | 340   | 374 | 399   | 407 | 324  |
| 125° | 458 | 459   | 485 | 507   | 514 | 409  |
| 135° | 565 | 564   | 574 | 592   | 600 | 436  |
| 145° | 650 | 650   | 650 | 658   | 663 | 406  |
| 155° | 711 | 712   | 710 | 712   | 711 | 328  |
| 165° | 750 | 748   | 748 | 752   | 747 | 212  |
| 175° | 768 | 764   | 765 | 770   | 763 | 73   |
| 180° | 768 | 768   | 768 | 768   | 768 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 959.1 | 959.1 | 959.1 | 959.1 | 959.1 |
| 2.5°   | 963.4 | 960.2 | 951.6 | 959.1 | 958.0 |
| 5°     | 960.2 | 957.0 | 949.4 | 958.0 | 957.0 |
| 7.5°   | 953.7 | 951.6 | 945.1 | 954.8 | 953.7 |
| 10°    | 945.1 | 944.1 | 938.7 | 948.4 | 947.3 |
| 12.5°  | 933.3 | 933.3 | 930.1 | 938.7 | 938.7 |
| 15°    | 920.4 | 921.5 | 918.3 | 928.0 | 926.9 |
| 17.5°  | 903.3 | 906.5 | 905.4 | 915.1 | 914.0 |
| 20°    | 885.0 | 888.2 | 889.3 | 900.0 | 900.0 |
| 22.5°  | 864.6 | 868.9 | 871.0 | 881.8 | 883.9 |
| 25°    | 842.0 | 848.5 | 851.7 | 863.5 | 864.6 |
| 27.5°  | 817.3 | 827.0 | 831.3 | 842.0 | 843.1 |
| 30°    | 792.6 | 801.2 | 808.7 | 820.6 | 822.7 |
| 32.5°  | 765.8 | 776.5 | 785.1 | 799.1 | 801.2 |
| 35°    | 736.8 | 749.7 | 760.4 | 775.5 | 778.7 |
| 37.5°  | 707.8 | 722.8 | 735.7 | 750.7 | 754.0 |
| 40°    | 679.9 | 693.8 | 708.9 | 725.0 | 729.3 |
| 42.5°  | 647.6 | 663.8 | 682.0 | 700.3 | 703.5 |
| 45°    | 614.3 | 634.8 | 655.2 | 673.4 | 678.8 |
| 47.5°  | 583.2 | 603.6 | 627.2 | 645.5 | 651.9 |
| 50°    | 548.8 | 572.5 | 596.1 | 617.6 | 624.0 |
| 52.5°  | 514.5 | 538.1 | 566.0 | 587.5 | 593.9 |
| 55°    | 481.2 | 503.7 | 535.9 | 557.4 | 563.9 |
| 57.5°  | 443.6 | 471.5 | 502.6 | 528.4 | 533.8 |
| 60°    | 407.1 | 435.0 | 470.4 | 495.1 | 503.7 |
| 62.5°  | 371.6 | 402.8 | 438.2 | 462.9 | 471.5 |
| 65°    | 332.9 | 367.3 | 403.8 | 430.7 | 439.3 |
| 67.5°  | 296.4 | 332.9 | 371.6 | 398.5 | 407.1 |
| 70°    | 258.8 | 295.4 | 336.2 | 365.2 | 372.7 |
| 72.5°  | 222.3 | 259.9 | 304.0 | 331.9 | 340.5 |
| 75°    | 184.7 | 224.5 | 269.6 | 299.7 | 309.3 |
| 77.5°  | 149.3 | 191.2 | 238.4 | 268.5 | 279.2 |
| 80°    | 117.1 | 160.0 | 207.3 | 239.5 | 248.1 |
| 82.5°  | 84.8  | 130.0 | 177.2 | 210.5 | 220.2 |
| 85°    | 56.9  | 102.0 | 150.4 | 182.6 | 193.3 |
| 87.5°  | 35.4  | 79.5  | 126.7 | 157.9 | 167.5 |
| 90°    | 18.9  | 68.1  | 118.9 | 153.6 | 163.3 |
| 92.5°  | 24.7  | 61.2  | 112.0 | 145.5 | 154.1 |
| 95°    | 45.6  | 61.5  | 106.0 | 138.5 | 148.8 |
| 97.5°  | 73.2  | 116.9 | 100.7 | 131.5 | 141.8 |
| 100°   | 106.0 | 144.2 | 106.9 | 126.1 | 134.2 |
| 102.5° | 143.9 | 174.3 | 222.1 | 120.9 | 129.5 |
| 105°   | 182.5 | 207.4 | 250.0 | 282.0 | 269.9 |
| 107.5° | 219.8 | 239.8 | 281.4 | 311.2 | 321.0 |
| 110°   | 256.6 | 273.4 | 314.4 | 340.3 | 350.6 |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 292.3 | 308.6 | 345.2 | 368.3 | 379.2 |
| 115°   | 329.1 | 340.5 | 374.3 | 399.1 | 406.6 |
| 117.5° | 363.0 | 371.8 | 405.7 | 427.7 | 436.3 |
| 120°   | 396.4 | 401.9 | 432.4 | 455.1 | 462.5 |
| 122.5° | 428.6 | 429.7 | 459.9 | 481.8 | 488.3 |
| 125°   | 457.9 | 459.1 | 484.8 | 507.0 | 513.9 |
| 127.5° | 487.2 | 486.6 | 511.0 | 529.7 | 536.8 |
| 130°   | 514.2 | 513.7 | 532.6 | 552.6 | 559.0 |
| 132.5° | 540.0 | 540.1 | 555.3 | 574.2 | 580.0 |
| 135°   | 564.8 | 564.2 | 574.1 | 592.5 | 600.0 |
| 137.5° | 587.8 | 586.8 | 593.9 | 611.2 | 616.0 |
| 140°   | 610.1 | 610.3 | 612.4 | 628.2 | 634.1 |
| 142.5° | 629.2 | 631.5 | 631.0 | 644.0 | 648.3 |
| 145°   | 649.9 | 650.5 | 650.5 | 657.5 | 663.0 |
| 147.5° | 666.0 | 668.3 | 667.8 | 669.4 | 674.3 |
| 150°   | 683.8 | 685.0 | 684.4 | 684.4 | 685.0 |
| 152.5° | 697.6 | 699.3 | 698.2 | 699.3 | 698.8 |
| 155°   | 711.4 | 712.0 | 710.2 | 712.5 | 710.8 |
| 157.5° | 723.5 | 723.5 | 721.2 | 724.0 | 721.2 |
| 160°   | 733.8 | 732.1 | 731.5 | 734.9 | 731.5 |
| 162.5° | 743.0 | 740.7 | 740.1 | 743.5 | 739.5 |
| 165°   | 750.4 | 747.6 | 747.6 | 752.2 | 747.0 |
| 167.5° | 756.8 | 753.9 | 753.3 | 758.5 | 752.7 |
| 170°   | 761.9 | 758.5 | 759.0 | 763.6 | 757.9 |
| 172.5° | 765.4 | 761.9 | 762.5 | 767.1 | 760.8 |
| 175°   | 767.7 | 764.2 | 764.8 | 770.0 | 763.1 |
| 177.5° | 769.4 | 765.4 | 766.5 | 771.1 | 764.2 |
| 180°   | 767.7 | 767.7 | 767.7 | 767.7 | 767.7 |

(END OF REPORT)