

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: P1000151

Luminaire Tested: SA2XXRDIP-B865D530UB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000151  
REPORT IS A COMBINATION OF REPORTS P988711 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B865D530UB2750-4F0-XX-W2A-F\_3000K  
Description: Define 2 Regressed Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589}  
{m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

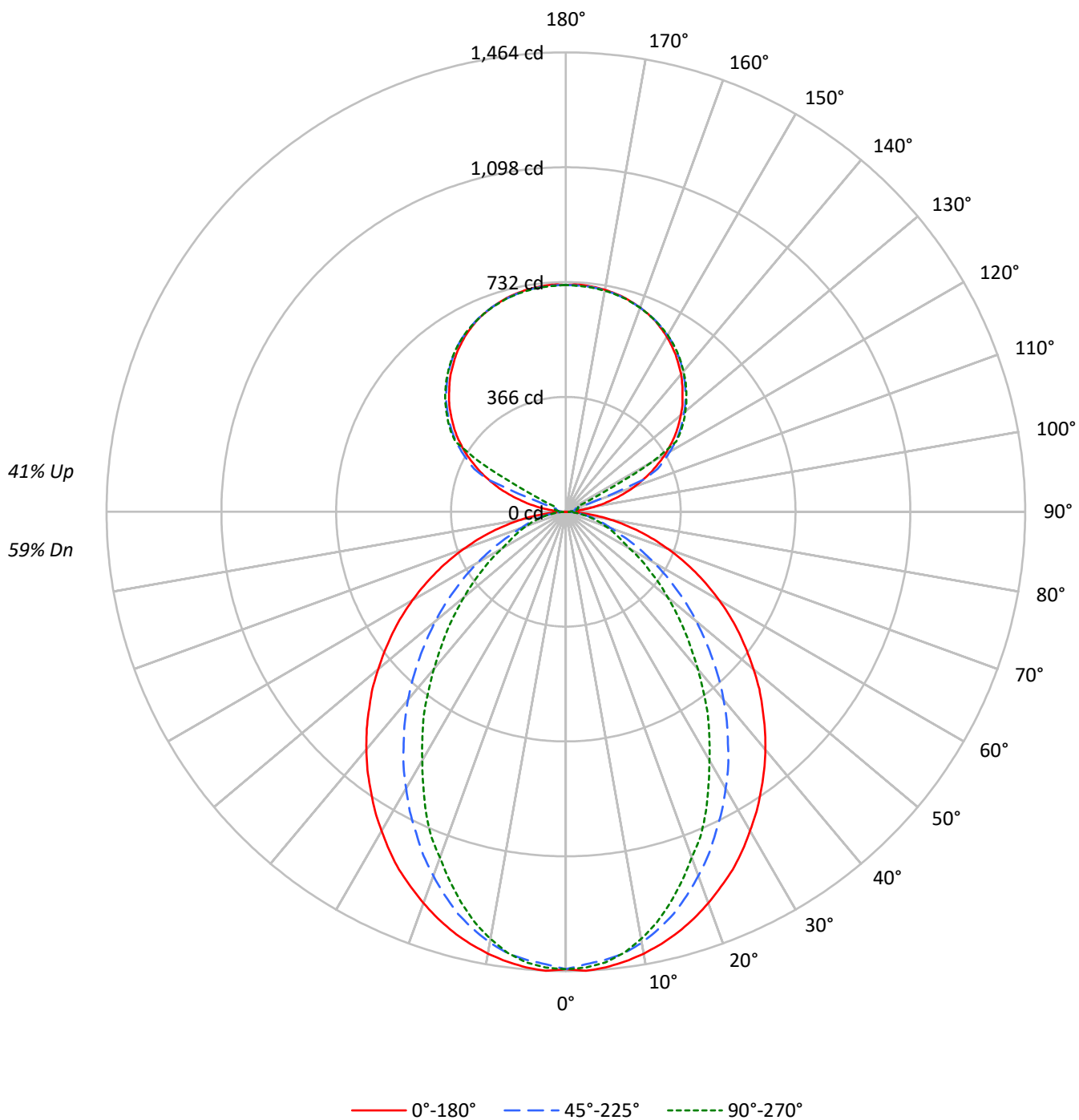
Lumens per Lamp: N/A  
Luminaire Lumens: 5118.0 lumens  
Efficiency: N/A  
Efficacy: 82.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 62.2  
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   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 76 | 76 | 76 | 64 | 64 | 64 |
| 1   | 100 | 96  | 92  | 89  | 93  | 90  | 87  | 84  | 78 | 76 | 74 | 67 | 66 | 64 | 57 | 56 | 55 |
| 2   | 92  | 85  | 79  | 74  | 85  | 79  | 74  | 70  | 69 | 65 | 62 | 60 | 57 | 54 | 51 | 49 | 47 |
| 3   | 84  | 75  | 68  | 62  | 78  | 70  | 64  | 59  | 62 | 57 | 53 | 53 | 50 | 47 | 46 | 43 | 41 |
| 4   | 77  | 67  | 59  | 53  | 72  | 63  | 56  | 50  | 55 | 50 | 45 | 48 | 44 | 41 | 41 | 38 | 36 |
| 5   | 71  | 60  | 52  | 46  | 66  | 56  | 49  | 44  | 50 | 44 | 40 | 43 | 39 | 36 | 38 | 34 | 32 |
| 6   | 66  | 54  | 46  | 40  | 61  | 51  | 44  | 38  | 45 | 39 | 35 | 39 | 35 | 31 | 34 | 31 | 28 |
| 7   | 61  | 49  | 41  | 36  | 57  | 46  | 39  | 34  | 41 | 35 | 31 | 36 | 32 | 28 | 32 | 28 | 25 |
| 8   | 57  | 45  | 37  | 32  | 53  | 42  | 35  | 30  | 38 | 32 | 28 | 33 | 29 | 25 | 29 | 25 | 23 |
| 9   | 53  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 35 | 29 | 25 | 31 | 26 | 23 | 27 | 23 | 21 |
| 10  | 50  | 38  | 30  | 26  | 46  | 36  | 29  | 25  | 32 | 27 | 23 | 28 | 24 | 21 | 25 | 22 | 19 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 23074 | 23074 | 23074 |
| 5°  | 23112 | 21953 | 21790 |
| 10° | 22884 | 20821 | 20133 |
| 15° | 22570 | 19484 | 18246 |
| 20° | 22154 | 17965 | 16272 |
| 25° | 21727 | 16405 | 14465 |
| 30° | 21155 | 14887 | 12491 |
| 35° | 20594 | 13356 | 10797 |
| 40° | 20025 | 11853 | 9052  |
| 45° | 19361 | 10300 | 7531  |
| 50° | 18676 | 8803  | 6131  |
| 55° | 17962 | 7306  | 4867  |
| 60° | 17133 | 5843  | 3682  |
| 65° | 16179 | 4454  | 2993  |
| 70° | 15028 | 3231  | 2381  |
| 75° | 13577 | 2464  | 1818  |
| 80° | 11481 | 1668  | 1219  |
| 85° | 8009  | 765   | 590   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 19361 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 136.6  | 2.7       |
| 10°-20°   | 375.1  | 7.3       |
| 20°-30°   | 526.6  | 10.3      |
| 30°-40°   | 574.0  | 11.2      |
| 40°-50°   | 527.5  | 10.3      |
| 50°-60°   | 414.3  | 8.1       |
| 60°-70°   | 269.7  | 5.3       |
| 70°-80°   | 138.8  | 2.7       |
| 80°-90°   | 36.7   | 0.7       |
| 90°-100°  | 23.8   | 0.5       |
| 100°-110° | 88.8   | 1.7       |
| 110°-120° | 235.6  | 4.6       |
| 120°-130° | 390.8  | 7.6       |
| 130°-140° | 415.1  | 8.1       |
| 140°-150° | 385.8  | 7.5       |
| 150°-160° | 310.2  | 6.1       |
| 160°-170° | 199.9  | 3.9       |
| 170°-180° | 68.8   | 1.3       |
| 0°-30°    | 1038.2 | 20.3      |
| 0°-40°    | 1612.2 | 31.5      |
| 0°-60°    | 2554.0 | 49.9      |
| 0°-90°    | 2999.3 | 58.6      |
| 90°-120°  | 348.3  | 6.8       |
| 90°-150°  | 1539.9 | 30.1      |
| 90°-180°  | 2119.0 | 41.4      |
| 0°-180°   | 5118.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1458 | 1458  | 1458 | 1458  | 1458 |      |
| 5°   | 1458 | 1451  | 1434 | 1446  | 1442 | 138  |
| 15°  | 1386 | 1372  | 1327 | 1302  | 1289 | 391  |
| 25°  | 1258 | 1216  | 1129 | 1075  | 1055 | 579  |
| 35°  | 1084 | 1017  | 901  | 818   | 789  | 679  |
| 45°  | 886  | 798   | 660  | 566   | 534  | 685  |
| 55°  | 674  | 571   | 429  | 350   | 324  | 602  |
| 65°  | 455  | 348   | 230  | 185   | 181  | 451  |
| 75°  | 243  | 150   | 106  | 96    | 95   | 257  |
| 85°  | 57   | 29    | 25   | 25    | 25   | 65   |
| 90°  | 0    | 6     | 10   | 13    | 14   | 5    |
| 95°  | 34   | 17    | 20   | 23    | 22   | 40   |
| 105° | 159  | 175   | 32   | 38    | 40   | 170  |
| 115° | 301  | 310   | 323  | 80    | 43   | 296  |
| 125° | 425  | 432   | 442  | 446   | 447  | 379  |
| 135° | 526  | 534   | 539  | 544   | 543  | 406  |
| 145° | 610  | 610   | 619  | 622   | 620  | 382  |
| 155° | 672  | 667   | 674  | 677   | 672  | 310  |
| 165° | 708  | 705   | 706  | 710   | 706  | 200  |
| 175° | 724  | 721   | 722  | 725   | 720  | 69   |
| 180° | 723  | 723   | 723  | 723   | 723  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1457.7 | 1457.7 | 1457.7 | 1457.7 | 1457.7 |
| 2.5°   | 1464.3 | 1457.7 | 1443.2 | 1456.4 | 1453.8 |
| 5°     | 1457.7 | 1451.1 | 1434.0 | 1445.9 | 1441.9 |
| 7.5°   | 1445.9 | 1437.9 | 1419.5 | 1424.7 | 1418.1 |
| 10°    | 1430.0 | 1420.8 | 1394.4 | 1390.4 | 1382.5 |
| 12.5°  | 1410.2 | 1398.4 | 1362.7 | 1354.8 | 1340.3 |
| 15°    | 1386.5 | 1372.0 | 1327.1 | 1302.1 | 1288.9 |
| 17.5°  | 1358.8 | 1337.7 | 1282.3 | 1253.2 | 1232.1 |
| 20°    | 1327.1 | 1300.7 | 1234.8 | 1201.8 | 1172.8 |
| 22.5°  | 1292.8 | 1262.5 | 1186.0 | 1141.1 | 1121.3 |
| 25°    | 1258.5 | 1216.3 | 1129.2 | 1075.2 | 1055.4 |
| 27.5°  | 1217.6 | 1172.8 | 1076.5 | 1014.5 | 984.1  |
| 30°    | 1174.1 | 1124.0 | 1018.4 | 951.1  | 915.5  |
| 32.5°  | 1131.9 | 1071.2 | 963.0  | 883.9  | 850.9  |
| 35°    | 1084.4 | 1017.1 | 901.0  | 817.9  | 788.9  |
| 37.5°  | 1038.2 | 965.7  | 843.0  | 751.9  | 719.0  |
| 40°    | 989.4  | 910.3  | 782.3  | 688.6  | 654.3  |
| 42.5°  | 939.3  | 854.8  | 721.6  | 624.0  | 591.0  |
| 45°    | 886.5  | 798.1  | 659.6  | 565.9  | 534.3  |
| 47.5°  | 836.4  | 742.7  | 600.2  | 506.6  | 477.6  |
| 50°    | 781.0  | 687.3  | 542.2  | 451.2  | 423.5  |
| 52.5°  | 726.9  | 627.9  | 486.8  | 399.7  | 374.7  |
| 55°    | 674.1  | 571.2  | 428.7  | 349.6  | 324.5  |
| 57.5°  | 620.0  | 514.5  | 377.3  | 303.4  | 282.3  |
| 60°    | 564.6  | 459.1  | 323.2  | 255.9  | 234.8  |
| 62.5°  | 510.5  | 405.0  | 277.0  | 213.7  | 203.2  |
| 65°    | 455.1  | 348.3  | 229.5  | 184.7  | 180.7  |
| 67.5°  | 402.4  | 295.5  | 184.7  | 162.3  | 158.3  |
| 70°    | 347.0  | 244.1  | 153.0  | 139.8  | 134.6  |
| 72.5°  | 294.2  | 196.6  | 128.0  | 117.4  | 114.8  |
| 75°    | 242.7  | 150.4  | 105.5  | 96.3   | 95.0   |
| 77.5°  | 191.3  | 106.9  | 83.1   | 77.8   | 75.2   |
| 80°    | 143.8  | 76.5   | 63.3   | 58.0   | 58.0   |
| 82.5°  | 100.3  | 51.4   | 43.5   | 40.9   | 40.9   |
| 85°    | 56.7   | 29.0   | 25.1   | 25.1   | 25.1   |
| 87.5°  | 21.1   | 10.6   | 10.6   | 9.2    | 9.2    |
| 90°    | 0.5    | 6.3    | 10.5   | 13.1   | 14.1   |
| 92.5°  | 13.1   | 11.0   | 12.6   | 13.6   | 14.1   |
| 95°    | 34.0   | 16.7   | 20.4   | 23.0   | 22.5   |
| 97.5°  | 61.2   | 18.3   | 26.7   | 28.2   | 28.8   |
| 100°   | 92.6   | 20.9   | 29.8   | 34.0   | 35.0   |
| 102.5° | 127.1  | 126.0  | 30.9   | 36.6   | 38.2   |
| 105°   | 159.0  | 174.7  | 31.9   | 37.7   | 39.7   |
| 107.5° | 196.1  | 209.2  | 32.9   | 38.7   | 40.8   |
| 110°   | 231.7  | 242.6  | 91.5   | 39.2   | 41.3   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 265.1 | 274.5 | 265.7 | 40.3  | 41.8  |
| 115°   | 300.7 | 309.6 | 322.7 | 80.5  | 42.9  |
| 117.5° | 331.5 | 342.0 | 350.9 | 276.1 | 139.1 |
| 120°   | 366.1 | 373.9 | 383.3 | 389.6 | 319.0 |
| 122.5° | 395.3 | 403.7 | 414.2 | 417.3 | 417.8 |
| 125°   | 425.2 | 432.0 | 441.9 | 445.5 | 447.1 |
| 127.5° | 452.3 | 459.7 | 467.5 | 472.7 | 473.3 |
| 130°   | 478.0 | 486.3 | 492.1 | 497.8 | 497.3 |
| 132.5° | 504.1 | 510.9 | 516.7 | 521.4 | 520.9 |
| 135°   | 526.1 | 534.4 | 539.2 | 544.4 | 543.3 |
| 137.5° | 549.1 | 555.4 | 560.6 | 565.8 | 564.3 |
| 140°   | 571.6 | 575.8 | 581.5 | 586.2 | 583.6 |
| 142.5° | 590.4 | 594.1 | 600.9 | 605.0 | 602.4 |
| 145°   | 610.3 | 609.8 | 618.6 | 622.3 | 619.7 |
| 147.5° | 627.5 | 626.0 | 634.9 | 637.5 | 635.4 |
| 150°   | 644.3 | 640.6 | 649.0 | 652.1 | 649.5 |
| 152.5° | 658.4 | 654.2 | 662.0 | 665.2 | 661.5 |
| 155°   | 672.0 | 667.3 | 673.6 | 676.7 | 672.5 |
| 157.5° | 683.0 | 678.8 | 683.5 | 687.1 | 683.0 |
| 160°   | 692.4 | 689.2 | 692.4 | 695.5 | 691.9 |
| 162.5° | 700.7 | 697.6 | 700.2 | 703.9 | 699.2 |
| 165°   | 708.1 | 704.9 | 706.5 | 710.2 | 706.5 |
| 167.5° | 713.8 | 710.7 | 712.2 | 715.9 | 711.2 |
| 170°   | 718.5 | 715.4 | 716.4 | 720.1 | 715.4 |
| 172.5° | 721.7 | 718.5 | 719.6 | 723.2 | 718.5 |
| 175°   | 724.3 | 720.6 | 721.7 | 725.3 | 720.1 |
| 177.5° | 725.3 | 721.7 | 722.2 | 725.8 | 721.1 |
| 180°   | 722.7 | 722.7 | 722.7 | 722.7 | 722.7 |

(END OF REPORT)