

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: P999413

Luminaire Tested: SA2XXRDIP-B1005D725UB35-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999413  
REPORT IS A COMBINATION OF REPORTS P987964 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B1005D725UB35-4F0-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**

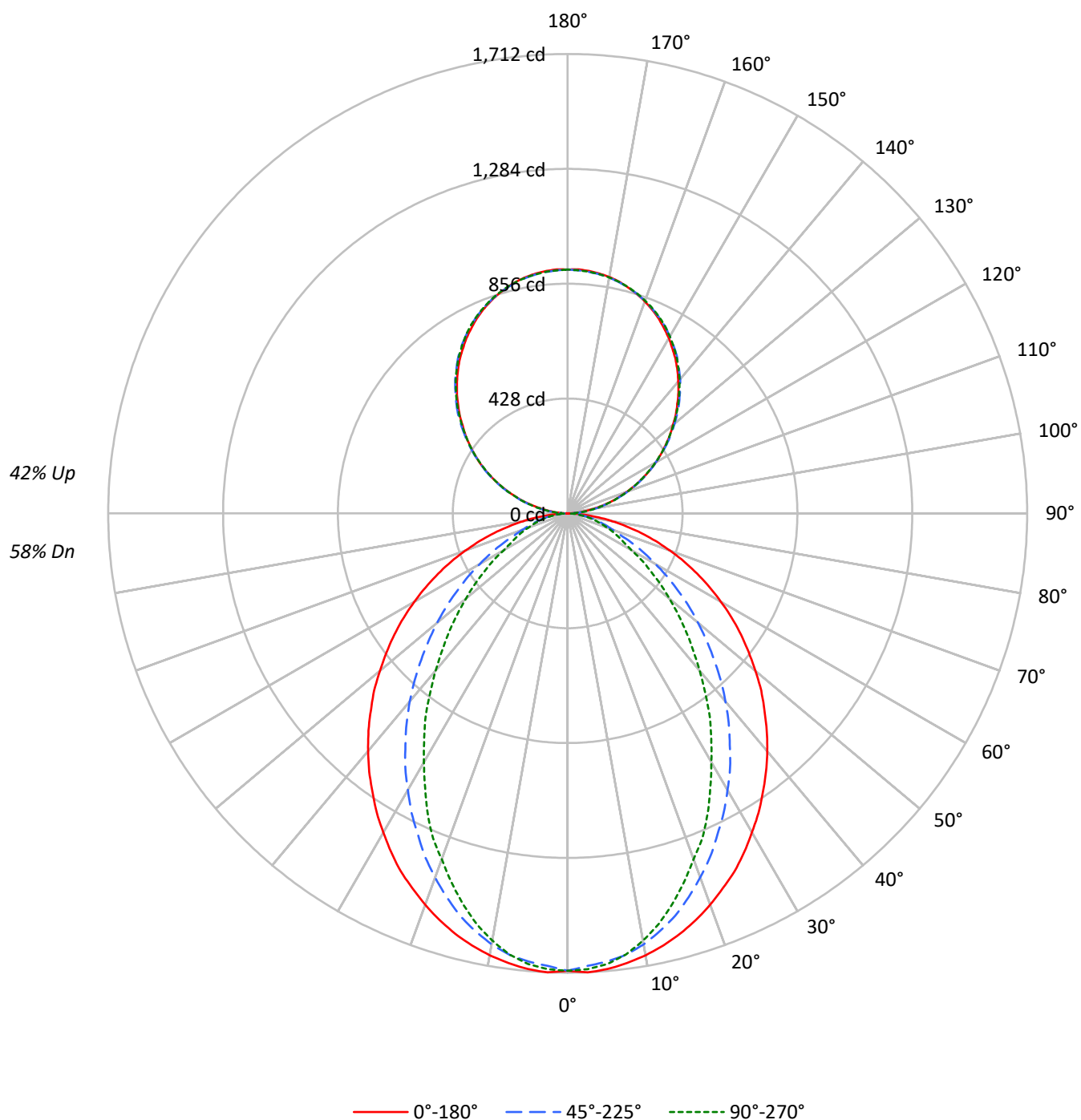
Lumens per Lamp: N/A  
Luminaire Lumens: 6049.0 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 82.4  
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 | 75 | 75 | 75 | 63 | 63 | 63 |
| 1   | 100 | 96  | 92  | 89  | 93  | 90  | 86  | 84  | 78 | 75 | 73 | 67 | 65 | 64 | 57 | 56 | 55 |
| 2   | 92  | 84  | 79  | 74  | 85  | 79  | 74  | 69  | 69 | 65 | 62 | 59 | 57 | 54 | 51 | 49 | 47 |
| 3   | 84  | 75  | 68  | 62  | 78  | 70  | 64  | 59  | 61 | 56 | 52 | 53 | 49 | 46 | 46 | 43 | 41 |
| 4   | 77  | 67  | 59  | 53  | 72  | 63  | 56  | 50  | 55 | 49 | 45 | 48 | 44 | 40 | 41 | 38 | 35 |
| 5   | 71  | 60  | 52  | 46  | 66  | 56  | 49  | 44  | 49 | 44 | 39 | 43 | 39 | 35 | 37 | 34 | 31 |
| 6   | 66  | 54  | 46  | 40  | 61  | 51  | 44  | 38  | 45 | 39 | 35 | 39 | 35 | 31 | 34 | 31 | 28 |
| 7   | 61  | 49  | 41  | 35  | 57  | 46  | 39  | 34  | 41 | 35 | 31 | 36 | 31 | 28 | 31 | 28 | 25 |
| 8   | 57  | 44  | 37  | 32  | 53  | 42  | 35  | 30  | 37 | 32 | 28 | 33 | 28 | 25 | 29 | 25 | 23 |
| 9   | 53  | 41  | 33  | 28  | 49  | 39  | 32  | 27  | 34 | 29 | 25 | 30 | 26 | 23 | 27 | 23 | 21 |
| 10  | 50  | 38  | 30  | 26  | 46  | 36  | 29  | 25  | 32 | 26 | 23 | 28 | 24 | 21 | 25 | 21 | 19 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26984 | 26984 | 26984 |
| 5°  | 27028 | 25673 | 25482 |
| 10° | 26762 | 24349 | 23545 |
| 15° | 26394 | 22786 | 21338 |
| 20° | 25908 | 21009 | 19029 |
| 25° | 25410 | 19186 | 16916 |
| 30° | 24739 | 17410 | 14609 |
| 35° | 24083 | 15619 | 12627 |
| 40° | 23419 | 13860 | 10586 |
| 45° | 22642 | 12045 | 8806  |
| 50° | 21840 | 10295 | 7169  |
| 55° | 21005 | 8545  | 5692  |
| 60° | 20037 | 6834  | 4306  |
| 65° | 18919 | 5209  | 3501  |
| 70° | 17570 | 3780  | 2785  |
| 75° | 15881 | 2882  | 2126  |
| 80° | 13429 | 1953  | 1427  |
| 85° | 9365  | 893   | 689   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22642 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 159.8  | 2.6       |
| 10°-20°   | 438.6  | 7.3       |
| 20°-30°   | 615.8  | 10.2      |
| 30°-40°   | 671.2  | 11.1      |
| 40°-50°   | 616.9  | 10.2      |
| 50°-60°   | 484.5  | 8.0       |
| 60°-70°   | 315.4  | 5.2       |
| 70°-80°   | 162.4  | 2.7       |
| 80°-90°   | 44.0   | 0.7       |
| 90°-100°  | 56.2   | 0.9       |
| 100°-110° | 178.7  | 3.0       |
| 110°-120° | 305.8  | 5.1       |
| 120°-130° | 402.1  | 6.6       |
| 130°-140° | 451.4  | 7.5       |
| 140°-150° | 442.6  | 7.3       |
| 150°-160° | 371.3  | 6.1       |
| 160°-170° | 246.2  | 4.1       |
| 170°-180° | 86.1   | 1.4       |
| 0°-30°    | 1214.2 | 20.1      |
| 0°-40°    | 1885.4 | 31.2      |
| 0°-60°    | 2986.8 | 49.4      |
| 0°-90°    | 3508.6 | 58.0      |
| 90°-120°  | 540.7  | 8.9       |
| 90°-150°  | 1836.8 | 30.4      |
| 90°-180°  | 2540.0 | 42.0      |
| 0°-180°   | 6049.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1705 | 1705  | 1705 | 1705  | 1705 |      |
| 5°   | 1705 | 1697  | 1677 | 1691  | 1686 | 162  |
| 15°  | 1621 | 1604  | 1552 | 1523  | 1507 | 457  |
| 25°  | 1472 | 1422  | 1321 | 1257  | 1234 | 677  |
| 35°  | 1268 | 1190  | 1054 | 956   | 923  | 794  |
| 45°  | 1037 | 933   | 771  | 662   | 625  | 801  |
| 55°  | 788  | 668   | 501  | 409   | 380  | 704  |
| 65°  | 532  | 407   | 268  | 216   | 211  | 528  |
| 75°  | 284  | 176   | 123  | 113   | 111  | 300  |
| 85°  | 66   | 34    | 29   | 29    | 29   | 76   |
| 90°  | 1    | 10    | 27   | 25    | 26   | 6    |
| 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°     | 1704.7 | 1704.7 | 1704.7 | 1704.7 | 1704.7 |
| 2.5°   | 1712.4 | 1704.7 | 1687.8 | 1703.2 | 1700.1 |
| 5°     | 1704.7 | 1697.0 | 1677.0 | 1690.8 | 1686.2 |
| 7.5°   | 1690.8 | 1681.6 | 1660.0 | 1666.2 | 1658.4 |
| 10°    | 1672.3 | 1661.5 | 1630.7 | 1626.1 | 1616.8 |
| 12.5°  | 1649.2 | 1635.3 | 1593.7 | 1584.4 | 1567.4 |
| 15°    | 1621.4 | 1604.5 | 1552.0 | 1522.7 | 1507.3 |
| 17.5°  | 1589.0 | 1564.3 | 1499.5 | 1465.6 | 1440.9 |
| 20°    | 1552.0 | 1521.1 | 1444.0 | 1405.4 | 1371.5 |
| 22.5°  | 1511.9 | 1476.4 | 1386.9 | 1334.5 | 1311.3 |
| 25°    | 1471.8 | 1422.4 | 1320.6 | 1257.3 | 1234.2 |
| 27.5°  | 1424.0 | 1371.5 | 1258.9 | 1186.4 | 1150.9 |
| 30°    | 1373.0 | 1314.4 | 1191.0 | 1112.3 | 1070.7 |
| 32.5°  | 1323.7 | 1252.7 | 1126.2 | 1033.6 | 995.1  |
| 35°    | 1268.1 | 1189.5 | 1053.7 | 956.5  | 922.6  |
| 37.5°  | 1214.1 | 1129.3 | 985.8  | 879.4  | 840.8  |
| 40°    | 1157.1 | 1064.5 | 914.8  | 805.3  | 765.2  |
| 42.5°  | 1098.4 | 999.7  | 843.9  | 729.7  | 691.1  |
| 45°    | 1036.7 | 933.4  | 771.4  | 661.8  | 624.8  |
| 47.5°  | 978.1  | 868.6  | 701.9  | 592.4  | 558.5  |
| 50°    | 913.3  | 803.8  | 634.1  | 527.6  | 495.2  |
| 52.5°  | 850.1  | 734.3  | 569.3  | 467.5  | 438.1  |
| 55°    | 788.3  | 668.0  | 501.4  | 408.8  | 379.5  |
| 57.5°  | 725.1  | 601.7  | 441.2  | 354.8  | 330.1  |
| 60°    | 660.3  | 536.9  | 378.0  | 299.3  | 274.6  |
| 62.5°  | 597.0  | 473.6  | 324.0  | 249.9  | 237.6  |
| 65°    | 532.2  | 407.3  | 268.4  | 216.0  | 211.4  |
| 67.5°  | 470.5  | 345.6  | 216.0  | 189.8  | 185.1  |
| 70°    | 405.7  | 285.4  | 179.0  | 163.5  | 157.4  |
| 72.5°  | 344.0  | 229.9  | 149.6  | 137.3  | 134.2  |
| 75°    | 283.9  | 175.9  | 123.4  | 112.6  | 111.1  |
| 77.5°  | 223.7  | 125.0  | 97.2   | 91.0   | 87.9   |
| 80°    | 168.2  | 89.5   | 74.1   | 67.9   | 67.9   |
| 82.5°  | 117.2  | 60.2   | 50.9   | 47.8   | 47.8   |
| 85°    | 66.3   | 33.9   | 29.3   | 29.3   | 29.3   |
| 87.5°  | 24.7   | 12.3   | 12.3   | 10.8   | 10.8   |
| 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)