

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: P999352

Luminaire Tested: SA2XXRDIP-B1005D530UB27-4F0-XX-W2A-F4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999352  
REPORT IS A COMBINATION OF REPORTS P987903 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B1005D530UB27-4F0-XX-W2A-F4  
Description: Define 2 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

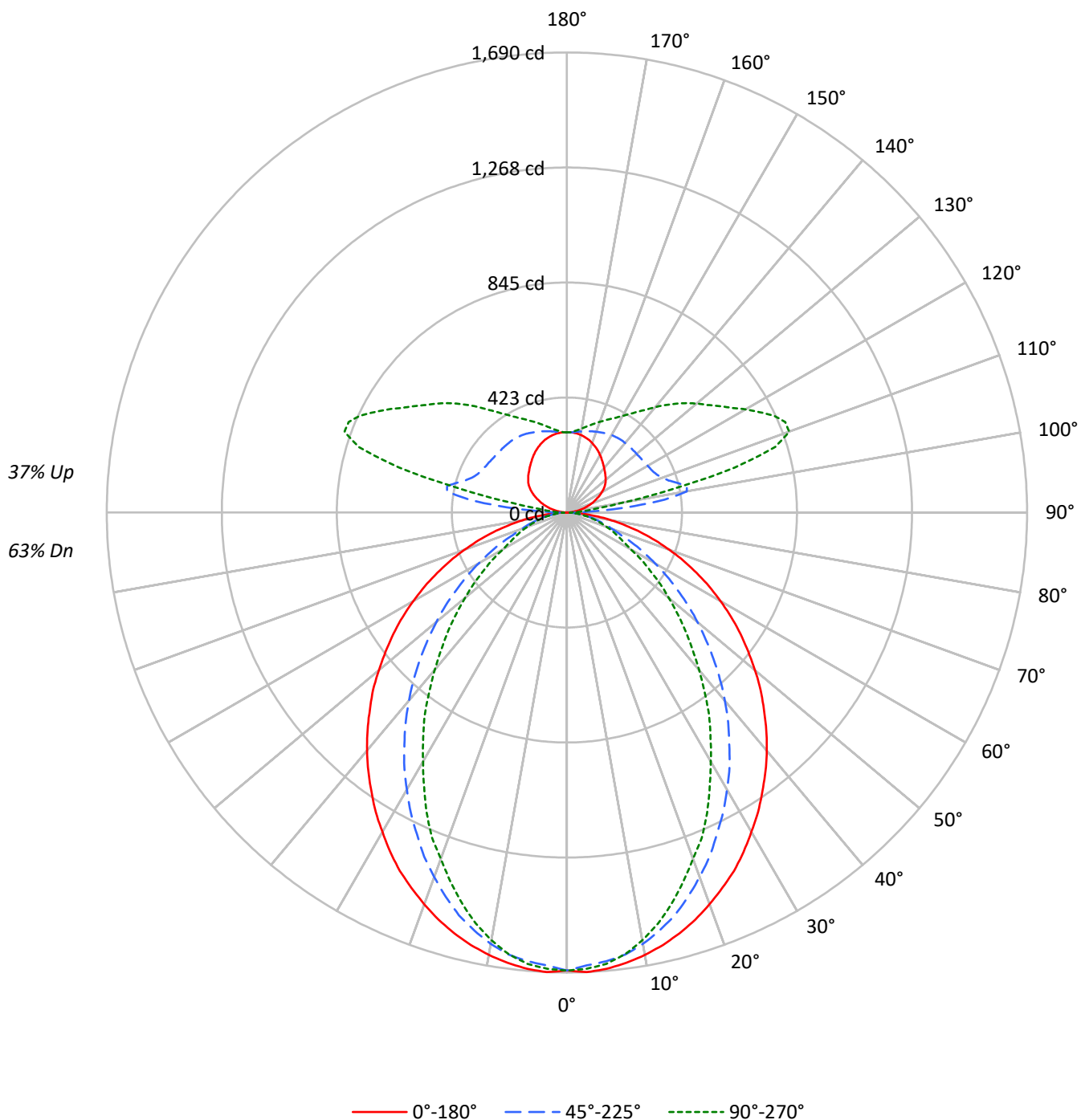
Lumens per Lamp: N/A  
Luminaire Lumens: 5515.3 lumens  
Efficiency: N/A  
Efficacy: 71.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 76.7  
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   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 79 | 79 | 79 | 68 | 68 | 68 |
| 1   | 101 | 97  | 93  | 90  | 95  | 91  | 88  | 85  | 80 | 78 | 76 | 70 | 68 | 67 | 61 | 60 | 59 |
| 2   | 93  | 85  | 80  | 75  | 87  | 80  | 75  | 71  | 71 | 67 | 64 | 62 | 59 | 57 | 54 | 52 | 50 |
| 3   | 85  | 76  | 69  | 63  | 79  | 71  | 65  | 60  | 63 | 58 | 54 | 56 | 52 | 49 | 49 | 46 | 43 |
| 4   | 78  | 67  | 60  | 54  | 73  | 64  | 57  | 51  | 57 | 51 | 47 | 50 | 46 | 42 | 44 | 41 | 38 |
| 5   | 72  | 61  | 53  | 47  | 67  | 57  | 50  | 45  | 51 | 45 | 41 | 45 | 41 | 37 | 40 | 36 | 34 |
| 6   | 67  | 55  | 47  | 41  | 62  | 52  | 45  | 39  | 46 | 40 | 36 | 41 | 36 | 33 | 36 | 33 | 30 |
| 7   | 62  | 50  | 42  | 36  | 58  | 47  | 40  | 35  | 42 | 36 | 32 | 38 | 33 | 29 | 33 | 30 | 27 |
| 8   | 57  | 45  | 38  | 32  | 54  | 43  | 36  | 31  | 39 | 33 | 29 | 35 | 30 | 26 | 31 | 27 | 24 |
| 9   | 54  | 42  | 34  | 29  | 50  | 40  | 33  | 28  | 36 | 30 | 26 | 32 | 27 | 24 | 29 | 25 | 22 |
| 10  | 50  | 38  | 31  | 26  | 47  | 36  | 30  | 25  | 33 | 27 | 24 | 30 | 25 | 22 | 27 | 23 | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26631 | 26631 | 26631 |
| 5°  | 26675 | 25336 | 25148 |
| 10° | 26411 | 24030 | 23237 |
| 15° | 26047 | 22487 | 21058 |
| 20° | 25567 | 20734 | 18779 |
| 25° | 25077 | 18934 | 16694 |
| 30° | 24414 | 17182 | 14417 |
| 35° | 23768 | 15415 | 12462 |
| 40° | 23111 | 13678 | 10448 |
| 45° | 22344 | 11888 | 8691  |
| 50° | 21553 | 10159 | 7075  |
| 55° | 20731 | 8433  | 5617  |
| 60° | 19773 | 6744  | 4250  |
| 65° | 18674 | 5141  | 3455  |
| 70° | 17340 | 3730  | 2747  |
| 75° | 15669 | 2845  | 2098  |
| 80° | 13253 | 1926  | 1409  |
| 85° | 9252  | 881   | 680   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22344 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 157.7  | 2.9       |
| 10°-20°   | 432.8  | 7.8       |
| 20°-30°   | 607.7  | 11.0      |
| 30°-40°   | 662.4  | 12.0      |
| 40°-50°   | 608.8  | 11.0      |
| 50°-60°   | 478.1  | 8.7       |
| 60°-70°   | 311.2  | 5.6       |
| 70°-80°   | 160.2  | 2.9       |
| 80°-90°   | 42.8   | 0.8       |
| 90°-100°  | 119.4  | 2.2       |
| 100°-110° | 403.6  | 7.3       |
| 110°-120° | 424.3  | 7.7       |
| 120°-130° | 348.9  | 6.3       |
| 130°-140° | 280.4  | 5.1       |
| 140°-150° | 211.8  | 3.8       |
| 150°-160° | 148.9  | 2.7       |
| 160°-170° | 87.7   | 1.6       |
| 170°-180° | 28.5   | 0.5       |
| 0°-30°    | 1198.2 | 21.7      |
| 0°-40°    | 1860.7 | 33.7      |
| 0°-60°    | 2947.6 | 53.4      |
| 0°-90°    | 3461.9 | 62.8      |
| 90°-120°  | 947.3  | 17.2      |
| 90°-150°  | 1788.4 | 32.4      |
| 90°-180°  | 2053.0 | 37.2      |
| 0°-180°   | 5515.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1682 | 1682  | 1682 | 1682  | 1682 |      |
| 5°   | 1682 | 1675  | 1655 | 1669  | 1664 | 160  |
| 15°  | 1600 | 1583  | 1532 | 1503  | 1488 | 451  |
| 25°  | 1452 | 1404  | 1303 | 1241  | 1218 | 668  |
| 35°  | 1252 | 1174  | 1040 | 944   | 910  | 783  |
| 45°  | 1023 | 921   | 761  | 653   | 617  | 790  |
| 55°  | 778  | 659   | 495  | 404   | 374  | 695  |
| 65°  | 525  | 402   | 265  | 213   | 209  | 521  |
| 75°  | 280  | 174   | 122  | 111   | 110  | 296  |
| 85°  | 66   | 34    | 29   | 29    | 29   | 75   |
| 90°  | 1    | 8     | 19   | 18    | 19   | 5    |
| 95°  | 20   | 49    | 222  | 84    | 65   | 20   |
| 105° | 69   | 104   | 420  | 750   | 638  | 73   |
| 115° | 122  | 154   | 351  | 725   | 840  | 121  |
| 125° | 170  | 201   | 338  | 587   | 681  | 151  |
| 135° | 199  | 238   | 334  | 493   | 565  | 154  |
| 145° | 228  | 262   | 332  | 412   | 451  | 143  |
| 155° | 259  | 280   | 322  | 364   | 379  | 119  |
| 165° | 282  | 291   | 309  | 327   | 332  | 80   |
| 175° | 294  | 294   | 297  | 300   | 300  | 28   |
| 180° | 294  | 294   | 294  | 294   | 294  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1682.4 | 1682.4 | 1682.4 | 1682.4 | 1682.4 |
| 2.5°   | 1690.0 | 1682.4 | 1665.6 | 1680.8 | 1677.8 |
| 5°     | 1682.4 | 1674.8 | 1655.0 | 1668.7 | 1664.1 |
| 7.5°   | 1668.7 | 1659.5 | 1638.2 | 1644.3 | 1636.7 |
| 10°    | 1650.4 | 1639.7 | 1609.3 | 1604.7 | 1595.6 |
| 12.5°  | 1627.6 | 1613.9 | 1572.7 | 1563.6 | 1546.9 |
| 15°    | 1600.1 | 1583.4 | 1531.6 | 1502.7 | 1487.5 |
| 17.5°  | 1568.2 | 1543.8 | 1479.9 | 1446.4 | 1422.0 |
| 20°    | 1531.6 | 1501.2 | 1425.1 | 1387.0 | 1353.5 |
| 22.5°  | 1492.1 | 1457.0 | 1368.7 | 1317.0 | 1294.1 |
| 25°    | 1452.5 | 1403.7 | 1303.3 | 1240.8 | 1218.0 |
| 27.5°  | 1405.3 | 1353.5 | 1242.4 | 1170.8 | 1135.8 |
| 30°    | 1355.0 | 1297.2 | 1175.4 | 1097.7 | 1056.6 |
| 32.5°  | 1306.3 | 1236.3 | 1111.4 | 1020.1 | 982.0  |
| 35°    | 1251.5 | 1173.8 | 1039.9 | 944.0  | 910.5  |
| 37.5°  | 1198.2 | 1114.5 | 972.9  | 867.8  | 829.8  |
| 40°    | 1141.9 | 1050.5 | 902.8  | 794.7  | 755.2  |
| 42.5°  | 1084.0 | 986.6  | 832.8  | 720.1  | 682.1  |
| 45°    | 1023.1 | 921.1  | 761.3  | 653.2  | 616.6  |
| 47.5°  | 965.3  | 857.2  | 692.7  | 584.6  | 551.1  |
| 50°    | 901.3  | 793.2  | 625.7  | 520.7  | 488.7  |
| 52.5°  | 838.9  | 724.7  | 561.8  | 461.3  | 432.4  |
| 55°    | 778.0  | 659.2  | 494.8  | 403.5  | 374.5  |
| 57.5°  | 715.6  | 593.8  | 435.4  | 350.2  | 325.8  |
| 60°    | 651.6  | 529.8  | 373.0  | 295.4  | 271.0  |
| 62.5°  | 589.2  | 467.4  | 319.7  | 246.6  | 234.5  |
| 65°    | 525.3  | 401.9  | 264.9  | 213.2  | 208.6  |
| 67.5°  | 464.4  | 341.0  | 213.2  | 187.3  | 182.7  |
| 70°    | 400.4  | 281.7  | 176.6  | 161.4  | 155.3  |
| 72.5°  | 339.5  | 226.9  | 147.7  | 135.5  | 132.5  |
| 75°    | 280.1  | 173.6  | 121.8  | 111.1  | 109.6  |
| 77.5°  | 220.8  | 123.3  | 95.9   | 89.8   | 86.8   |
| 80°    | 166.0  | 88.3   | 73.1   | 67.0   | 67.0   |
| 82.5°  | 115.7  | 59.4   | 50.2   | 47.2   | 47.2   |
| 85°    | 65.5   | 33.5   | 28.9   | 28.9   | 28.9   |
| 87.5°  | 24.4   | 12.2   | 12.2   | 10.7   | 10.7   |
| 90°    | 0.6    | 7.6    | 19.3   | 18.4   | 18.7   |
| 92.5°  | 8.5    | 26.9   | 87.2   | 40.2   | 34.6   |
| 95°    | 19.8   | 48.7   | 222.0  | 83.8   | 64.6   |
| 97.5°  | 29.5   | 64.2   | 361.9  | 168.2  | 108.2  |
| 100°   | 43.6   | 78.8   | 447.5  | 335.0  | 202.8  |
| 102.5° | 56.6   | 91.8   | 450.3  | 566.4  | 395.3  |
| 105°   | 69.1   | 104.2  | 419.7  | 750.2  | 638.3  |
| 107.5° | 82.7   | 116.6  | 391.4  | 816.8  | 802.0  |
| 110°   | 96.3   | 129.4  | 372.1  | 806.0  | 868.9  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 108.7 | 141.6 | 359.7 | 769.4 | 867.7 |
| 115°   | 121.8 | 153.8 | 351.2 | 724.7 | 840.0 |
| 117.5° | 135.4 | 166.0 | 346.6 | 682.0 | 798.1 |
| 120°   | 147.8 | 177.9 | 342.7 | 643.7 | 757.8 |
| 122.5° | 159.7 | 190.0 | 340.4 | 614.0 | 715.9 |
| 125°   | 169.9 | 201.0 | 337.6 | 587.0 | 681.4 |
| 127.5° | 178.4 | 211.6 | 335.9 | 564.2 | 649.1 |
| 130°   | 185.8 | 220.9 | 334.7 | 540.9 | 622.5 |
| 132.5° | 192.6 | 230.0 | 334.2 | 516.8 | 594.7 |
| 135°   | 199.4 | 237.9 | 333.6 | 493.4 | 564.7 |
| 137.5° | 205.6 | 244.6 | 333.6 | 469.6 | 535.8 |
| 140°   | 213.0 | 251.0 | 333.0 | 448.6 | 505.8 |
| 142.5° | 220.3 | 256.0 | 333.0 | 428.5 | 475.8 |
| 145°   | 227.7 | 261.6 | 331.9 | 412.0 | 450.9 |
| 147.5° | 235.6 | 266.2 | 330.2 | 397.6 | 428.8 |
| 150°   | 243.6 | 270.7 | 328.5 | 385.2 | 409.5 |
| 152.5° | 251.5 | 275.2 | 325.7 | 374.6 | 393.1 |
| 155°   | 258.8 | 279.6 | 322.3 | 364.5 | 378.9 |
| 157.5° | 265.1 | 282.9 | 318.9 | 354.8 | 366.5 |
| 160°   | 271.3 | 286.3 | 315.5 | 345.2 | 354.6 |
| 162.5° | 277.5 | 288.8 | 312.7 | 336.2 | 343.2 |
| 165°   | 282.1 | 290.6 | 308.7 | 327.4 | 332.5 |
| 167.5° | 286.0 | 292.2 | 305.3 | 319.5 | 322.3 |
| 170°   | 290.0 | 293.2 | 302.5 | 312.1 | 313.2 |
| 172.5° | 292.3 | 294.0 | 299.1 | 305.6 | 305.9 |
| 175°   | 294.0 | 294.2 | 296.8 | 300.5 | 299.6 |
| 177.5° | 295.1 | 294.5 | 294.5 | 296.8 | 295.1 |
| 180°   | 294.5 | 294.5 | 294.5 | 294.5 | 294.5 |

(END OF REPORT)