

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: P999327

Luminaire Tested: SA2XXRDIP-B1005D330UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999327  
REPORT IS A COMBINATION OF REPORTS P987878 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B1005D330UB30-4F0-XX-W2A-F1  
Description: Define 2 Regressed Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589}  
{m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

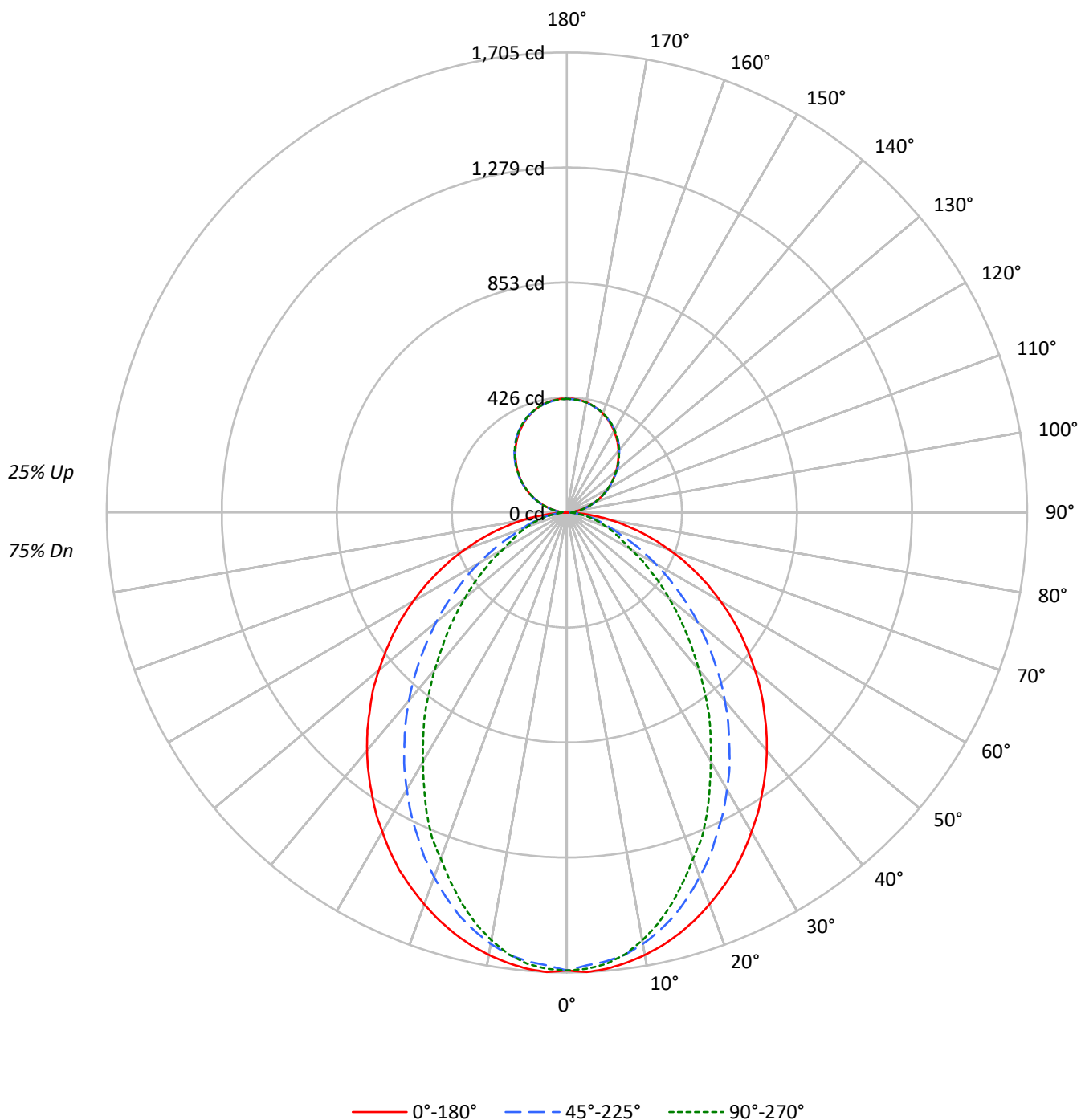
Lumens per Lamp: N/A  
Luminaire Lumens: 4670.0 lumens  
Efficiency: N/A  
Efficacy: 66.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 70.6  
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   | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 107 | 97 | 97 | 97 | 88 | 88 | 88 | 79 | 79 | 79 |
| 1   | 104 | 100 | 96  | 93  | 99  | 95  | 92  | 89  | 86 | 84 | 81 | 78 | 76 | 75 | 71 | 69 | 68 |
| 2   | 95  | 88  | 82  | 77  | 91  | 84  | 79  | 74  | 77 | 72 | 69 | 70 | 66 | 63 | 63 | 61 | 58 |
| 3   | 88  | 78  | 71  | 65  | 83  | 75  | 68  | 63  | 68 | 63 | 59 | 62 | 58 | 55 | 57 | 53 | 51 |
| 4   | 81  | 70  | 62  | 56  | 76  | 67  | 60  | 54  | 61 | 55 | 51 | 56 | 51 | 47 | 51 | 47 | 44 |
| 5   | 74  | 63  | 55  | 49  | 71  | 60  | 53  | 47  | 55 | 49 | 44 | 51 | 46 | 42 | 47 | 42 | 39 |
| 6   | 69  | 57  | 49  | 43  | 65  | 54  | 47  | 42  | 50 | 44 | 39 | 46 | 41 | 37 | 43 | 38 | 35 |
| 7   | 64  | 52  | 44  | 38  | 61  | 50  | 42  | 37  | 46 | 40 | 35 | 42 | 37 | 33 | 39 | 35 | 31 |
| 8   | 60  | 47  | 39  | 34  | 57  | 45  | 38  | 33  | 42 | 36 | 32 | 39 | 34 | 30 | 36 | 32 | 28 |
| 9   | 56  | 43  | 36  | 31  | 53  | 42  | 35  | 30  | 39 | 33 | 29 | 36 | 31 | 27 | 33 | 29 | 26 |
| 10  | 52  | 40  | 33  | 28  | 50  | 39  | 32  | 27  | 36 | 30 | 26 | 34 | 28 | 25 | 31 | 27 | 24 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26869 | 26869 | 26869 |
| 5°  | 26912 | 25563 | 25373 |
| 10° | 26648 | 24245 | 23445 |
| 15° | 26282 | 22689 | 21246 |
| 20° | 25798 | 20919 | 18947 |
| 25° | 25301 | 19103 | 16843 |
| 30° | 24634 | 17336 | 14546 |
| 35° | 23981 | 15553 | 12573 |
| 40° | 23317 | 13801 | 10541 |
| 45° | 22545 | 11994 | 8768  |
| 50° | 21747 | 10251 | 7139  |
| 55° | 20917 | 8508  | 5668  |
| 60° | 19952 | 6805  | 4287  |
| 65° | 18841 | 5188  | 3486  |
| 70° | 17496 | 3764  | 2772  |
| 75° | 15814 | 2871  | 2117  |
| 80° | 13365 | 1942  | 1421  |
| 85° | 9337  | 890   | 687   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22545 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 159.1  | 3.4       |
| 10°-20°   | 436.7  | 9.4       |
| 20°-30°   | 613.1  | 13.1      |
| 30°-40°   | 668.4  | 14.3      |
| 40°-50°   | 614.3  | 13.2      |
| 50°-60°   | 482.4  | 10.3      |
| 60°-70°   | 314.0  | 6.7       |
| 70°-80°   | 161.7  | 3.5       |
| 80°-90°   | 42.5   | 0.9       |
| 90°-100°  | 26.1   | 0.6       |
| 100°-110° | 82.8   | 1.8       |
| 110°-120° | 141.8  | 3.0       |
| 120°-130° | 186.4  | 4.0       |
| 130°-140° | 209.3  | 4.5       |
| 140°-150° | 205.2  | 4.4       |
| 150°-160° | 172.1  | 3.7       |
| 160°-170° | 114.2  | 2.4       |
| 170°-180° | 39.9   | 0.9       |
| 0°-30°    | 1209.0 | 25.9      |
| 0°-40°    | 1877.3 | 40.2      |
| 0°-60°    | 2974.0 | 63.7      |
| 0°-90°    | 3492.2 | 74.8      |
| 90°-120°  | 250.7  | 5.4       |
| 90°-150°  | 851.6  | 18.2      |
| 90°-180°  | 1178.0 | 25.2      |
| 0°-180°   | 4670.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1697 | 1697  | 1697 | 1697  | 1697 |      |
| 5°   | 1697 | 1690  | 1670 | 1684  | 1679 | 161  |
| 15°  | 1614 | 1598  | 1545 | 1516  | 1501 | 455  |
| 25°  | 1466 | 1416  | 1315 | 1252  | 1229 | 674  |
| 35°  | 1263 | 1184  | 1049 | 952   | 919  | 790  |
| 45°  | 1032 | 929   | 768  | 659   | 622  | 797  |
| 55°  | 785  | 665   | 499  | 407   | 378  | 701  |
| 65°  | 530  | 406   | 267  | 215   | 210  | 525  |
| 75°  | 283  | 175   | 123  | 112   | 111  | 299  |
| 85°  | 66   | 34    | 29   | 29    | 29   | 76   |
| 90°  | 0    | 5     | 12   | 12    | 12   | 5    |
| 95°  | 18   | 22    | 23   | 23    | 22   | 21   |
| 105° | 76   | 78    | 78   | 79    | 79   | 81   |
| 115° | 142  | 144   | 144  | 143   | 142  | 141  |
| 125° | 207  | 210   | 209  | 208   | 208  | 185  |
| 135° | 268  | 272   | 272  | 272   | 271  | 207  |
| 145° | 325  | 327   | 330  | 330   | 328  | 203  |
| 155° | 372  | 373   | 374  | 375   | 374  | 171  |
| 165° | 404  | 404   | 404  | 406   | 405  | 114  |
| 175° | 421  | 420   | 419  | 421   | 419  | 40   |
| 180° | 421  | 421   | 421  | 421   | 421  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1697.4 | 1697.4 | 1697.4 | 1697.4 | 1697.4 |
| 2.5°   | 1705.1 | 1697.4 | 1680.5 | 1695.9 | 1692.8 |
| 5°     | 1697.4 | 1689.8 | 1669.8 | 1683.6 | 1679.0 |
| 7.5°   | 1683.6 | 1674.4 | 1652.9 | 1659.0 | 1651.4 |
| 10°    | 1665.2 | 1654.4 | 1623.7 | 1619.1 | 1609.9 |
| 12.5°  | 1642.1 | 1628.3 | 1586.8 | 1577.6 | 1560.7 |
| 15°    | 1614.5 | 1597.6 | 1545.4 | 1516.2 | 1500.8 |
| 17.5°  | 1582.2 | 1557.6 | 1493.1 | 1459.3 | 1434.8 |
| 20°    | 1545.4 | 1514.6 | 1437.8 | 1399.4 | 1365.6 |
| 22.5°  | 1505.4 | 1470.1 | 1381.0 | 1328.8 | 1305.7 |
| 25°    | 1465.5 | 1416.3 | 1314.9 | 1252.0 | 1228.9 |
| 27.5°  | 1417.9 | 1365.6 | 1253.5 | 1181.3 | 1146.0 |
| 30°    | 1367.2 | 1308.8 | 1185.9 | 1107.6 | 1066.1 |
| 32.5°  | 1318.0 | 1247.3 | 1121.4 | 1029.2 | 990.8  |
| 35°    | 1262.7 | 1184.4 | 1049.2 | 952.4  | 918.6  |
| 37.5°  | 1208.9 | 1124.5 | 981.6  | 875.6  | 837.2  |
| 40°    | 1152.1 | 1059.9 | 910.9  | 801.9  | 761.9  |
| 42.5°  | 1093.7 | 995.4  | 840.3  | 726.6  | 688.2  |
| 45°    | 1032.3 | 929.4  | 768.1  | 659.0  | 622.1  |
| 47.5°  | 973.9  | 864.8  | 698.9  | 589.9  | 556.1  |
| 50°    | 909.4  | 800.3  | 631.4  | 525.4  | 493.1  |
| 52.5°  | 846.4  | 731.2  | 566.8  | 465.5  | 436.3  |
| 55°    | 785.0  | 665.2  | 499.2  | 407.1  | 377.9  |
| 57.5°  | 722.0  | 599.1  | 439.3  | 353.3  | 328.7  |
| 60°    | 657.5  | 534.6  | 376.4  | 298.0  | 273.4  |
| 62.5°  | 594.5  | 471.6  | 322.6  | 248.9  | 236.6  |
| 65°    | 530.0  | 405.5  | 267.3  | 215.1  | 210.5  |
| 67.5°  | 468.5  | 344.1  | 215.1  | 188.9  | 184.3  |
| 70°    | 404.0  | 284.2  | 178.2  | 162.8  | 156.7  |
| 72.5°  | 342.6  | 228.9  | 149.0  | 136.7  | 133.6  |
| 75°    | 282.7  | 175.1  | 122.9  | 112.1  | 110.6  |
| 77.5°  | 222.7  | 124.4  | 96.8   | 90.6   | 87.6   |
| 80°    | 167.4  | 89.1   | 73.7   | 67.6   | 67.6   |
| 82.5°  | 116.7  | 59.9   | 50.7   | 47.6   | 47.6   |
| 85°    | 66.1   | 33.8   | 29.2   | 29.2   | 29.2   |
| 87.5°  | 24.6   | 12.3   | 12.3   | 10.8   | 10.8   |
| 90°    | 0.4    | 4.6    | 12.4   | 11.7   | 12.1   |
| 92.5°  | 7.8    | 10.7   | 11.0   | 11.4   | 11.4   |
| 95°    | 18.5   | 22.0   | 22.8   | 22.8   | 22.0   |
| 97.5°  | 30.9   | 34.1   | 35.6   | 35.6   | 35.6   |
| 100°   | 45.1   | 48.0   | 49.1   | 49.1   | 48.7   |
| 102.5° | 60.1   | 62.2   | 63.6   | 64.0   | 63.6   |
| 105°   | 76.4   | 77.5   | 78.2   | 78.9   | 78.9   |
| 107.5° | 92.8   | 94.2   | 94.2   | 94.6   | 92.8   |
| 110°   | 108.4  | 110.6  | 110.6  | 110.6  | 109.5  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 125.5 | 127.6 | 127.3 | 126.2 | 125.5 |
| 115°   | 142.2 | 144.3 | 143.6 | 143.3 | 142.2 |
| 117.5° | 158.9 | 161.8 | 160.0 | 158.9 | 157.8 |
| 120°   | 175.6 | 178.5 | 175.6 | 175.6 | 174.6 |
| 122.5° | 190.9 | 194.5 | 192.7 | 191.6 | 190.9 |
| 125°   | 206.9 | 210.1 | 209.0 | 208.0 | 207.6 |
| 127.5° | 222.5 | 226.5 | 225.0 | 223.6 | 222.5 |
| 130°   | 237.1 | 241.7 | 241.0 | 240.3 | 238.9 |
| 132.5° | 253.5 | 257.0 | 257.4 | 255.6 | 254.5 |
| 135°   | 267.7 | 271.6 | 272.3 | 272.0 | 270.9 |
| 137.5° | 283.3 | 286.5 | 287.2 | 286.9 | 285.5 |
| 140°   | 297.2 | 300.4 | 302.2 | 302.2 | 300.8 |
| 142.5° | 311.4 | 314.6 | 315.7 | 316.0 | 314.6 |
| 145°   | 324.9 | 327.4 | 329.6 | 329.9 | 328.5 |
| 147.5° | 337.0 | 340.2 | 341.6 | 342.4 | 340.9 |
| 150°   | 349.5 | 351.6 | 353.0 | 354.1 | 353.0 |
| 152.5° | 360.5 | 362.6 | 364.4 | 365.8 | 364.4 |
| 155°   | 371.5 | 372.6 | 373.6 | 375.4 | 374.3 |
| 157.5° | 381.1 | 381.8 | 382.5 | 385.0 | 383.2 |
| 160°   | 389.6 | 390.3 | 390.7 | 392.8 | 391.4 |
| 162.5° | 397.5 | 397.5 | 397.8 | 400.3 | 398.5 |
| 165°   | 404.2 | 403.9 | 403.9 | 406.3 | 404.6 |
| 167.5° | 410.3 | 409.2 | 409.2 | 411.7 | 409.9 |
| 170°   | 414.9 | 413.8 | 413.5 | 415.9 | 413.8 |
| 172.5° | 418.1 | 417.0 | 416.7 | 419.1 | 417.0 |
| 175°   | 420.6 | 419.5 | 418.8 | 421.3 | 419.1 |
| 177.5° | 422.0 | 420.9 | 420.2 | 422.3 | 420.2 |
| 180°   | 421.3 | 421.3 | 421.3 | 421.3 | 421.3 |

(END OF REPORT)