

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: P1000873

Luminaire Tested: SA4XXDIP-B1195D1205UB27-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000873  
REPORT IS A COMBINATION OF REPORTS P995486 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B1195D1205UB27-4F0-XX-W2A-F1  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

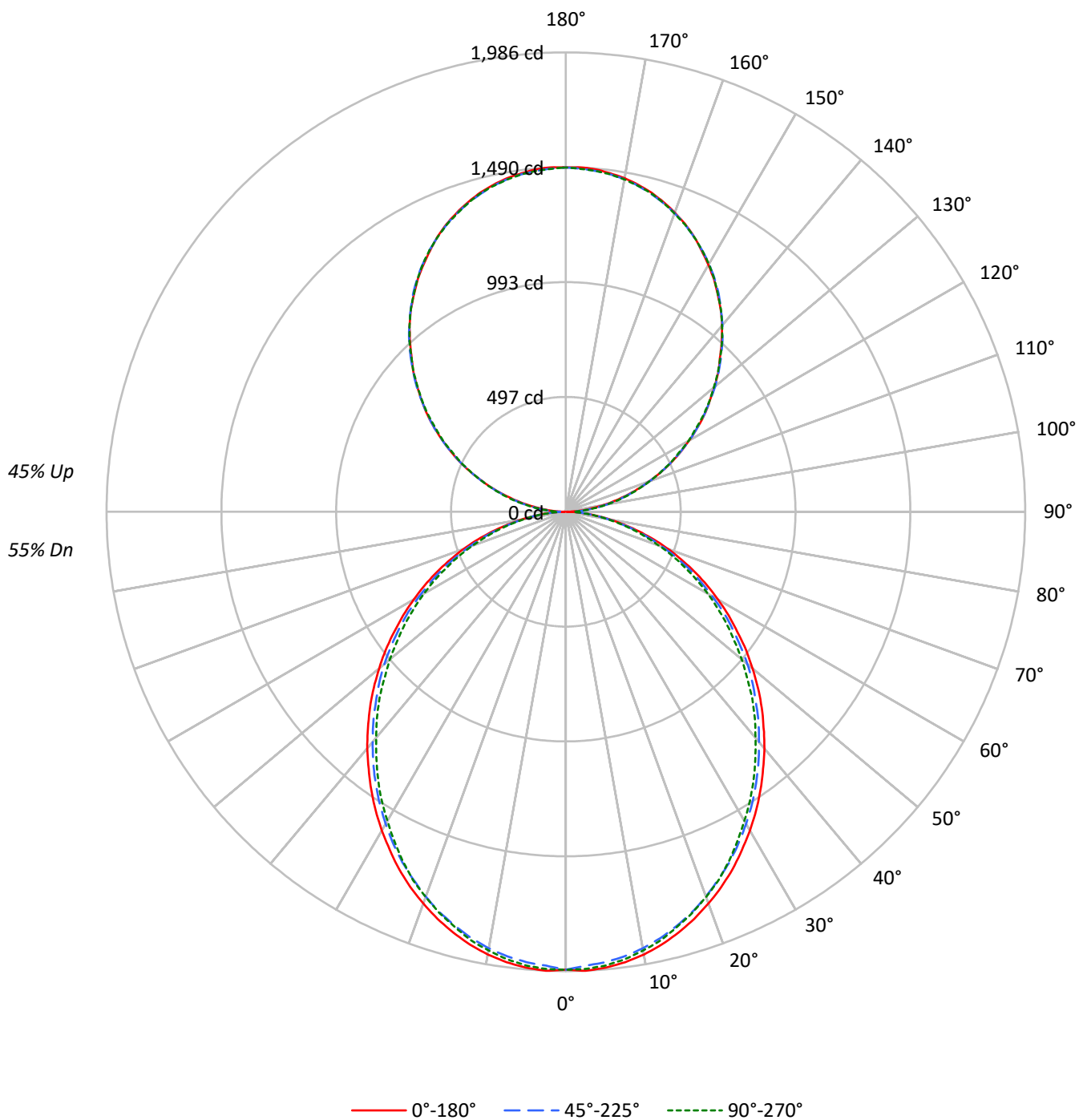
Lumens per Lamp: N/A  
Luminaire Lumens: 9215.0 lumens  
Efficiency: N/A  
Efficacy: 95.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 96.3  
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 | 101 | 101 | 101 | 101 | 86 | 86 | 86 | 73 | 73 | 73 | 61 | 61 | 61 |
| 1   | 99  | 95  | 91  | 87  | 92  | 88  | 85  | 81  | 76 | 73 | 71 | 64 | 62 | 61 | 54 | 53 | 51 |
| 2   | 90  | 83  | 76  | 71  | 83  | 77  | 71  | 67  | 66 | 62 | 59 | 56 | 53 | 51 | 47 | 45 | 43 |
| 3   | 82  | 73  | 65  | 59  | 76  | 68  | 61  | 56  | 58 | 53 | 49 | 50 | 46 | 43 | 42 | 39 | 37 |
| 4   | 75  | 64  | 56  | 50  | 70  | 60  | 53  | 47  | 52 | 46 | 42 | 44 | 40 | 37 | 37 | 34 | 32 |
| 5   | 69  | 57  | 49  | 43  | 64  | 54  | 46  | 41  | 46 | 41 | 36 | 40 | 35 | 32 | 34 | 30 | 28 |
| 6   | 64  | 51  | 43  | 37  | 59  | 48  | 41  | 35  | 42 | 36 | 32 | 36 | 31 | 28 | 31 | 27 | 24 |
| 7   | 59  | 46  | 38  | 33  | 55  | 44  | 36  | 31  | 38 | 32 | 28 | 33 | 28 | 25 | 28 | 24 | 22 |
| 8   | 55  | 42  | 34  | 29  | 51  | 40  | 33  | 28  | 35 | 29 | 25 | 30 | 25 | 22 | 26 | 22 | 19 |
| 9   | 51  | 39  | 31  | 26  | 47  | 36  | 29  | 25  | 32 | 26 | 22 | 28 | 23 | 20 | 24 | 20 | 18 |
| 10  | 48  | 35  | 28  | 23  | 44  | 33  | 27  | 22  | 29 | 24 | 20 | 26 | 21 | 18 | 22 | 19 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16146 | 16146 | 16146 |
| 5°  | 16159 | 15681 | 15700 |
| 10° | 16022 | 15246 | 15139 |
| 15° | 15792 | 14729 | 14506 |
| 20° | 15499 | 14169 | 13850 |
| 25° | 15168 | 13577 | 13145 |
| 30° | 14770 | 12938 | 12371 |
| 35° | 14357 | 12282 | 11622 |
| 40° | 13928 | 11578 | 10826 |
| 45° | 13476 | 10871 | 10081 |
| 50° | 12977 | 10186 | 9257  |
| 55° | 12435 | 9386  | 8438  |
| 60° | 11879 | 8510  | 7585  |
| 65° | 11244 | 7605  | 6624  |
| 70° | 10512 | 6515  | 5593  |
| 75° | 9418  | 5252  | 4480  |
| 80° | 8024  | 3797  | 3151  |
| 85° | 6236  | 2114  | 1696  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13476 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 186.6  | 2.0       |
| 10°-20°   | 525.8  | 5.7       |
| 20°-30°   | 773.8  | 8.4       |
| 30°-40°   | 899.5  | 9.8       |
| 40°-50°   | 899.4  | 9.8       |
| 50°-60°   | 786.6  | 8.5       |
| 60°-70°   | 584.0  | 6.3       |
| 70°-80°   | 331.4  | 3.6       |
| 80°-90°   | 98.1   | 1.1       |
| 90°-100°  | 97.0   | 1.1       |
| 100°-110° | 290.6  | 3.2       |
| 110°-120° | 493.7  | 5.4       |
| 120°-130° | 651.1  | 7.1       |
| 130°-140° | 731.2  | 7.9       |
| 140°-150° | 718.7  | 7.8       |
| 150°-160° | 604.5  | 6.6       |
| 160°-170° | 402.2  | 4.4       |
| 170°-180° | 140.8  | 1.5       |
| 0°-30°    | 1486.2 | 16.1      |
| 0°-40°    | 2385.7 | 25.9      |
| 0°-60°    | 4071.7 | 44.2      |
| 0°-90°    | 5085.2 | 55.2      |
| 90°-120°  | 881.3  | 9.6       |
| 90°-150°  | 2982.3 | 32.4      |
| 90°-180°  | 4130.0 | 44.8      |
| 0°-180°   | 9215.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1980 | 1980  | 1980 | 1980  | 1980 |      |
| 5°   | 1978 | 1972  | 1955 | 1972  | 1969 | 188  |
| 15°  | 1883 | 1877  | 1853 | 1863  | 1858 | 531  |
| 25°  | 1706 | 1694  | 1672 | 1674  | 1667 | 785  |
| 35°  | 1468 | 1456  | 1434 | 1423  | 1415 | 918  |
| 45°  | 1198 | 1187  | 1161 | 1144  | 1139 | 923  |
| 55°  | 906  | 901   | 879  | 860   | 850  | 811  |
| 65°  | 614  | 606   | 590  | 574   | 566  | 608  |
| 75°  | 327  | 319   | 311  | 305   | 303  | 347  |
| 85°  | 86   | 86    | 82   | 82    | 81   | 92   |
| 90°  | 4    | 16    | 25   | 32    | 34   | 11   |
| 95°  | 69   | 79    | 88   | 91    | 91   | 75   |
| 105° | 268  | 269   | 274  | 277   | 281  | 284  |
| 115° | 502  | 502   | 500  | 498   | 497  | 495  |
| 125° | 731  | 731   | 730  | 728   | 725  | 652  |
| 135° | 943  | 950   | 950  | 947   | 944  | 729  |
| 145° | 1145 | 1150  | 1151 | 1150  | 1146 | 717  |
| 155° | 1312 | 1312  | 1311 | 1316  | 1311 | 604  |
| 165° | 1429 | 1425  | 1423 | 1430  | 1425 | 403  |
| 175° | 1486 | 1480  | 1479 | 1487  | 1479 | 141  |
| 180° | 1488 | 1488  | 1488 | 1488  | 1488 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1980.0 | 1980.0 | 1980.0 | 1980.0 | 1980.0 |
| 2.5°   | 1986.3 | 1981.6 | 1964.1 | 1980.0 | 1978.4 |
| 5°     | 1978.4 | 1972.0 | 1954.6 | 1972.0 | 1968.9 |
| 7.5°   | 1964.1 | 1957.8 | 1938.7 | 1953.0 | 1951.4 |
| 10°    | 1943.5 | 1937.1 | 1916.5 | 1929.2 | 1926.0 |
| 12.5°  | 1916.5 | 1910.2 | 1888.0 | 1902.2 | 1897.5 |
| 15°    | 1883.2 | 1876.9 | 1853.1 | 1862.6 | 1857.8 |
| 17.5°  | 1845.1 | 1837.2 | 1815.0 | 1821.3 | 1818.2 |
| 20°    | 1802.3 | 1794.4 | 1770.6 | 1775.3 | 1772.1 |
| 22.5°  | 1756.3 | 1745.2 | 1721.4 | 1730.9 | 1724.5 |
| 25°    | 1705.5 | 1694.4 | 1672.2 | 1673.8 | 1667.4 |
| 27.5°  | 1648.4 | 1637.3 | 1616.7 | 1613.5 | 1605.6 |
| 30°    | 1591.3 | 1578.6 | 1558.0 | 1551.6 | 1543.7 |
| 32.5°  | 1531.0 | 1519.9 | 1497.7 | 1489.7 | 1481.8 |
| 35°    | 1467.5 | 1456.4 | 1434.2 | 1423.1 | 1415.2 |
| 37.5°  | 1400.9 | 1391.4 | 1367.6 | 1356.5 | 1345.4 |
| 40°    | 1335.9 | 1323.2 | 1299.4 | 1283.5 | 1275.6 |
| 42.5°  | 1266.0 | 1259.7 | 1232.7 | 1213.7 | 1208.9 |
| 45°    | 1197.8 | 1186.7 | 1161.3 | 1143.9 | 1139.1 |
| 47.5°  | 1126.4 | 1118.5 | 1094.7 | 1075.7 | 1063.0 |
| 50°    | 1053.4 | 1047.1 | 1024.9 | 1002.7 | 993.2  |
| 52.5°  | 982.1  | 974.1  | 950.3  | 931.3  | 918.6  |
| 55°    | 905.9  | 901.1  | 878.9  | 859.9  | 850.4  |
| 57.5°  | 834.5  | 829.8  | 807.5  | 788.5  | 779.0  |
| 60°    | 759.9  | 752.0  | 731.4  | 717.1  | 709.2  |
| 62.5°  | 687.0  | 680.6  | 658.4  | 645.7  | 637.8  |
| 65°    | 614.0  | 606.1  | 590.2  | 574.3  | 566.4  |
| 67.5°  | 539.4  | 533.1  | 517.2  | 501.3  | 499.8  |
| 70°    | 471.2  | 460.1  | 447.4  | 434.7  | 429.9  |
| 72.5°  | 398.2  | 387.1  | 377.6  | 368.1  | 363.3  |
| 75°    | 326.8  | 318.9  | 311.0  | 304.6  | 303.0  |
| 77.5°  | 257.0  | 253.8  | 245.9  | 244.3  | 239.6  |
| 80°    | 195.1  | 190.4  | 187.2  | 184.0  | 182.4  |
| 82.5°  | 134.9  | 133.3  | 133.3  | 131.7  | 130.1  |
| 85°    | 85.7   | 85.7   | 82.5   | 82.5   | 80.9   |
| 87.5°  | 41.2   | 39.7   | 38.1   | 38.1   | 38.1   |
| 90°    | 3.5    | 16.1   | 25.3   | 32.2   | 34.5   |
| 92.5°  | 29.9   | 44.9   | 50.7   | 54.1   | 55.3   |
| 95°    | 69.1   | 79.4   | 87.5   | 90.9   | 90.9   |
| 97.5°  | 110.5  | 119.7  | 128.9  | 133.5  | 133.5  |
| 100°   | 161.2  | 165.8  | 176.1  | 178.4  | 178.4  |
| 102.5° | 214.1  | 215.3  | 224.5  | 227.9  | 229.1  |
| 105°   | 268.2  | 269.4  | 274.0  | 277.4  | 280.9  |
| 107.5° | 324.6  | 325.8  | 326.9  | 331.5  | 330.4  |
| 110°   | 382.2  | 384.5  | 383.3  | 381.0  | 384.5  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 442.0  | 442.0  | 439.7  | 439.7  | 439.7  |
| 115°   | 501.9  | 501.9  | 499.6  | 498.4  | 497.3  |
| 117.5° | 558.3  | 558.3  | 557.2  | 553.7  | 550.2  |
| 120°   | 614.7  | 619.3  | 615.9  | 610.1  | 612.4  |
| 122.5° | 673.4  | 674.6  | 673.4  | 670.0  | 664.2  |
| 125°   | 731.0  | 731.0  | 729.8  | 727.5  | 725.2  |
| 127.5° | 782.8  | 786.2  | 783.9  | 781.6  | 780.5  |
| 130°   | 838.0  | 841.5  | 841.5  | 839.2  | 834.6  |
| 132.5° | 894.4  | 896.7  | 895.6  | 893.3  | 892.1  |
| 135°   | 942.8  | 949.7  | 949.7  | 947.4  | 943.9  |
| 137.5° | 996.9  | 1000.3 | 1002.6 | 999.2  | 1000.3 |
| 140°   | 1051.0 | 1053.3 | 1053.3 | 1052.1 | 1051.0 |
| 142.5° | 1100.5 | 1102.8 | 1101.6 | 1101.6 | 1101.6 |
| 145°   | 1145.4 | 1150.0 | 1151.1 | 1150.0 | 1146.5 |
| 147.5° | 1191.4 | 1197.2 | 1196.0 | 1194.9 | 1193.7 |
| 150°   | 1232.9 | 1237.5 | 1237.5 | 1237.5 | 1236.3 |
| 152.5° | 1272.0 | 1274.3 | 1275.5 | 1278.9 | 1275.5 |
| 155°   | 1312.3 | 1312.3 | 1311.1 | 1315.7 | 1311.1 |
| 157.5° | 1346.8 | 1344.5 | 1344.5 | 1348.0 | 1344.5 |
| 160°   | 1376.8 | 1375.6 | 1374.5 | 1377.9 | 1372.2 |
| 162.5° | 1404.4 | 1400.9 | 1399.8 | 1406.7 | 1400.9 |
| 165°   | 1428.6 | 1425.1 | 1422.8 | 1429.7 | 1425.1 |
| 167.5° | 1448.1 | 1443.5 | 1443.5 | 1450.4 | 1443.5 |
| 170°   | 1464.2 | 1458.5 | 1459.6 | 1466.5 | 1458.5 |
| 172.5° | 1475.8 | 1471.2 | 1471.2 | 1479.2 | 1471.2 |
| 175°   | 1486.1 | 1480.4 | 1479.2 | 1487.3 | 1479.2 |
| 177.5° | 1490.7 | 1485.0 | 1485.0 | 1493.0 | 1483.8 |
| 180°   | 1488.4 | 1488.4 | 1488.4 | 1488.4 | 1488.4 |

(END OF REPORT)