

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: P1000530

Luminaire Tested: SA4XXDIP-B1020D1035UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000530  
REPORT IS A COMBINATION OF REPORTS P995140 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B1020D1035UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 4 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

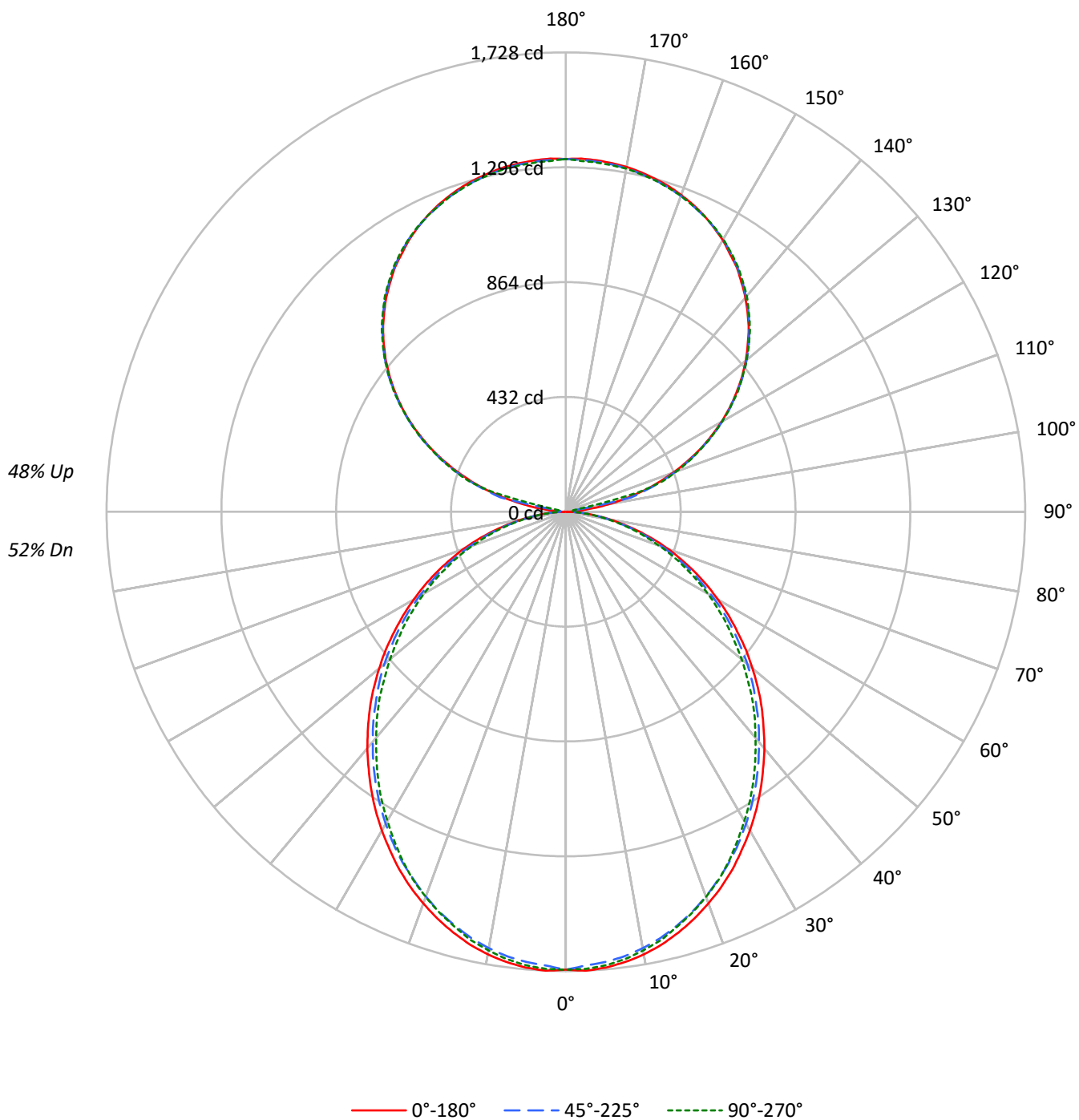
Lumens per Lamp: N/A  
Luminaire Lumens: 8530.0 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 75.3  
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 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 71 | 71 | 71 | 58 | 58 | 58 |
| 1   | 98  | 94  | 90  | 86  | 91 | 87 | 84 | 80 | 74 | 71 | 69 | 62 | 60 | 59 | 51 | 50 | 49 |
| 2   | 89  | 82  | 76  | 71  | 82 | 76 | 71 | 66 | 65 | 61 | 57 | 54 | 52 | 49 | 45 | 43 | 41 |
| 3   | 82  | 72  | 65  | 59  | 75 | 67 | 60 | 55 | 57 | 52 | 48 | 48 | 44 | 41 | 40 | 37 | 35 |
| 4   | 75  | 64  | 56  | 50  | 69 | 59 | 52 | 47 | 51 | 45 | 41 | 43 | 39 | 36 | 36 | 33 | 30 |
| 5   | 68  | 57  | 49  | 43  | 63 | 53 | 46 | 40 | 45 | 40 | 35 | 39 | 34 | 31 | 32 | 29 | 26 |
| 6   | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 41 | 35 | 31 | 35 | 30 | 27 | 29 | 26 | 23 |
| 7   | 58  | 46  | 38  | 32  | 54 | 43 | 36 | 31 | 37 | 31 | 27 | 32 | 27 | 24 | 27 | 23 | 21 |
| 8   | 54  | 42  | 34  | 29  | 50 | 39 | 32 | 27 | 34 | 28 | 24 | 29 | 25 | 21 | 24 | 21 | 18 |
| 9   | 50  | 38  | 31  | 26  | 47 | 36 | 29 | 24 | 31 | 26 | 22 | 27 | 22 | 19 | 23 | 19 | 17 |
| 10  | 47  | 35  | 28  | 23  | 44 | 33 | 26 | 22 | 29 | 23 | 20 | 25 | 20 | 17 | 21 | 18 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 14045 | 14045 | 14045 |
| 5°  | 14058 | 13642 | 13658 |
| 10° | 13938 | 13262 | 13170 |
| 15° | 13739 | 12812 | 12620 |
| 20° | 13483 | 12326 | 12049 |
| 25° | 13196 | 11811 | 11436 |
| 30° | 12849 | 11254 | 10762 |
| 35° | 12491 | 10685 | 10110 |
| 40° | 12116 | 10073 | 9418  |
| 45° | 11723 | 9457  | 8771  |
| 50° | 11289 | 8861  | 8053  |
| 55° | 10818 | 8165  | 7341  |
| 60° | 10334 | 7403  | 6598  |
| 65° | 9781  | 6615  | 5762  |
| 70° | 9145  | 5668  | 4866  |
| 75° | 8193  | 4568  | 3897  |
| 80° | 6984  | 3304  | 2741  |
| 85° | 5421  | 1840  | 1476  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11723 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 162.3  | 1.9       |
| 10°-20°   | 457.4  | 5.4       |
| 20°-30°   | 673.1  | 7.9       |
| 30°-40°   | 782.5  | 9.2       |
| 40°-50°   | 782.4  | 9.2       |
| 50°-60°   | 684.3  | 8.0       |
| 60°-70°   | 508.0  | 6.0       |
| 70°-80°   | 288.3  | 3.4       |
| 80°-90°   | 85.3   | 1.0       |
| 90°-100°  | 44.0   | 0.5       |
| 100°-110° | 290.1  | 3.4       |
| 110°-120° | 553.9  | 6.5       |
| 120°-130° | 703.2  | 8.2       |
| 130°-140° | 752.3  | 8.8       |
| 140°-150° | 703.4  | 8.2       |
| 150°-160° | 567.3  | 6.7       |
| 160°-170° | 365.8  | 4.3       |
| 170°-180° | 126.1  | 1.5       |
| 0°-30°    | 1292.9 | 15.2      |
| 0°-40°    | 2075.4 | 24.3      |
| 0°-60°    | 3542.1 | 41.5      |
| 0°-90°    | 4423.7 | 51.9      |
| 90°-120°  | 888.1  | 10.4      |
| 90°-150°  | 3047.1 | 35.7      |
| 90°-180°  | 4106.0 | 48.1      |
| 0°-180°   | 8530.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1722 | 1722  | 1722 | 1722  | 1722 |      |
| 5°   | 1721 | 1716  | 1700 | 1716  | 1713 | 163  |
| 15°  | 1638 | 1633  | 1612 | 1620  | 1616 | 462  |
| 25°  | 1484 | 1474  | 1455 | 1456  | 1451 | 683  |
| 35°  | 1277 | 1267  | 1248 | 1238  | 1231 | 798  |
| 45°  | 1042 | 1032  | 1010 | 995   | 991  | 803  |
| 55°  | 788  | 784   | 765  | 748   | 740  | 706  |
| 65°  | 534  | 527   | 513  | 500   | 493  | 529  |
| 75°  | 284  | 277   | 270  | 265   | 264  | 302  |
| 85°  | 74   | 74    | 72   | 72    | 70   | 80   |
| 90°  | 3    | 14    | 22   | 28    | 30   | 8    |
| 95°  | 55   | 21    | 22   | 28    | 29   | 67   |
| 105° | 299  | 305   | 310  | 319   | 283  | 313  |
| 115° | 558  | 561   | 560  | 562   | 562  | 549  |
| 125° | 784  | 788   | 786  | 789   | 790  | 700  |
| 135° | 973  | 972   | 976  | 978   | 980  | 750  |
| 145° | 1122 | 1124  | 1124 | 1126  | 1128 | 701  |
| 155° | 1230 | 1231  | 1228 | 1232  | 1229 | 567  |
| 165° | 1297 | 1292  | 1292 | 1300  | 1291 | 367  |
| 175° | 1327 | 1321  | 1322 | 1331  | 1319 | 126  |
| 180° | 1327 | 1327  | 1327 | 1327  | 1327 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1722.4 | 1722.4 | 1722.4 | 1722.4 | 1722.4 |
| 2.5°   | 1728.0 | 1723.8 | 1708.6 | 1722.4 | 1721.1 |
| 5°     | 1721.1 | 1715.5 | 1700.4 | 1715.5 | 1712.8 |
| 7.5°   | 1708.6 | 1703.1 | 1686.6 | 1699.0 | 1697.6 |
| 10°    | 1690.7 | 1685.2 | 1667.2 | 1678.3 | 1675.5 |
| 12.5°  | 1667.2 | 1661.7 | 1642.4 | 1654.8 | 1650.7 |
| 15°    | 1638.3 | 1632.7 | 1612.0 | 1620.3 | 1616.2 |
| 17.5°  | 1605.1 | 1598.2 | 1578.9 | 1584.4 | 1581.7 |
| 20°    | 1567.9 | 1561.0 | 1540.3 | 1544.4 | 1541.6 |
| 22.5°  | 1527.8 | 1518.2 | 1497.5 | 1505.8 | 1500.2 |
| 25°    | 1483.7 | 1474.0 | 1454.7 | 1456.1 | 1450.6 |
| 27.5°  | 1434.0 | 1424.3 | 1406.4 | 1403.6 | 1396.7 |
| 30°    | 1384.3 | 1373.3 | 1355.3 | 1349.8 | 1342.9 |
| 32.5°  | 1331.9 | 1322.2 | 1302.9 | 1296.0 | 1289.1 |
| 35°    | 1276.7 | 1267.0 | 1247.7 | 1238.0 | 1231.1 |
| 37.5°  | 1218.7 | 1210.4 | 1189.7 | 1180.0 | 1170.4 |
| 40°    | 1162.1 | 1151.1 | 1130.4 | 1116.6 | 1109.7 |
| 42.5°  | 1101.4 | 1095.9 | 1072.4 | 1055.8 | 1051.7 |
| 45°    | 1042.0 | 1032.4 | 1010.3 | 995.1  | 991.0  |
| 47.5°  | 979.9  | 973.0  | 952.3  | 935.8  | 924.7  |
| 50°    | 916.4  | 910.9  | 891.6  | 872.3  | 864.0  |
| 52.5°  | 854.3  | 847.4  | 826.7  | 810.2  | 799.1  |
| 55°    | 788.1  | 783.9  | 764.6  | 748.1  | 739.8  |
| 57.5°  | 726.0  | 721.8  | 702.5  | 685.9  | 677.7  |
| 60°    | 661.1  | 654.2  | 636.3  | 623.8  | 616.9  |
| 62.5°  | 597.6  | 592.1  | 572.8  | 561.7  | 554.8  |
| 65°    | 534.1  | 527.2  | 513.4  | 499.6  | 492.7  |
| 67.5°  | 469.3  | 463.7  | 449.9  | 436.1  | 434.8  |
| 70°    | 409.9  | 400.2  | 389.2  | 378.2  | 374.0  |
| 72.5°  | 346.4  | 336.8  | 328.5  | 320.2  | 316.1  |
| 75°    | 284.3  | 277.4  | 270.5  | 265.0  | 263.6  |
| 77.5°  | 223.6  | 220.8  | 213.9  | 212.5  | 208.4  |
| 80°    | 169.8  | 165.6  | 162.9  | 160.1  | 158.7  |
| 82.5°  | 117.3  | 115.9  | 115.9  | 114.6  | 113.2  |
| 85°    | 74.5   | 74.5   | 71.8   | 71.8   | 70.4   |
| 87.5°  | 35.9   | 34.5   | 33.1   | 33.1   | 33.1   |
| 90°    | 3.0    | 13.9   | 21.8   | 27.8   | 29.8   |
| 92.5°  | 14.9   | 12.9   | 20.8   | 26.8   | 26.8   |
| 95°    | 54.6   | 20.8   | 21.8   | 27.8   | 28.8   |
| 97.5°  | 104.2  | 126.1  | 21.8   | 26.8   | 27.8   |
| 100°   | 162.8  | 180.6  | 43.7   | 26.8   | 27.8   |
| 102.5° | 228.3  | 240.2  | 252.1  | 28.8   | 28.8   |
| 105°   | 298.8  | 304.7  | 309.7  | 318.6  | 282.9  |
| 107.5° | 363.3  | 366.2  | 373.2  | 378.2  | 382.1  |
| 110°   | 428.8  | 431.8  | 437.7  | 439.7  | 442.7  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 492.3  | 498.3  | 500.2  | 499.2  | 503.2  |
| 115°   | 557.8  | 560.8  | 559.8  | 561.8  | 561.8  |
| 117.5° | 616.4  | 620.3  | 623.3  | 622.3  | 622.3  |
| 120°   | 675.9  | 679.9  | 678.9  | 680.9  | 678.9  |
| 122.5° | 731.5  | 733.5  | 735.5  | 736.5  | 734.5  |
| 125°   | 784.1  | 788.1  | 786.1  | 789.1  | 790.1  |
| 127.5° | 834.7  | 835.7  | 840.7  | 839.7  | 838.7  |
| 130°   | 883.4  | 884.3  | 887.3  | 888.3  | 888.3  |
| 132.5° | 928.0  | 930.0  | 934.0  | 935.0  | 934.0  |
| 135°   | 972.7  | 971.7  | 975.7  | 977.6  | 979.6  |
| 137.5° | 1012.4 | 1012.4 | 1017.3 | 1019.3 | 1018.3 |
| 140°   | 1051.1 | 1053.1 | 1055.1 | 1058.0 | 1059.0 |
| 142.5° | 1085.8 | 1089.8 | 1090.8 | 1092.8 | 1092.8 |
| 145°   | 1121.6 | 1124.5 | 1124.5 | 1125.5 | 1127.5 |
| 147.5° | 1149.4 | 1155.3 | 1154.3 | 1155.3 | 1156.3 |
| 150°   | 1180.1 | 1184.1 | 1183.1 | 1183.1 | 1184.1 |
| 152.5° | 1205.9 | 1208.9 | 1206.9 | 1208.9 | 1207.9 |
| 155°   | 1229.7 | 1230.7 | 1227.8 | 1231.7 | 1228.8 |
| 157.5° | 1250.6 | 1250.6 | 1246.6 | 1251.6 | 1246.6 |
| 160°   | 1268.5 | 1265.5 | 1264.5 | 1270.4 | 1264.5 |
| 162.5° | 1284.3 | 1280.4 | 1279.4 | 1285.3 | 1278.4 |
| 165°   | 1297.2 | 1292.3 | 1292.3 | 1300.2 | 1291.3 |
| 167.5° | 1308.2 | 1303.2 | 1302.2 | 1311.1 | 1301.2 |
| 170°   | 1317.1 | 1311.1 | 1312.1 | 1320.1 | 1310.1 |
| 172.5° | 1323.0 | 1317.1 | 1318.1 | 1326.0 | 1315.1 |
| 175°   | 1327.0 | 1321.1 | 1322.1 | 1331.0 | 1319.1 |
| 177.5° | 1330.0 | 1323.0 | 1325.0 | 1333.0 | 1321.1 |
| 180°   | 1327.0 | 1327.0 | 1327.0 | 1327.0 | 1327.0 |

(END OF REPORT)