

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: P1001806

Luminaire Tested: SA4XXDIP-B795D1205UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1001806  
REPORT IS A COMBINATION OF REPORTS P996428 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXDIP-B795D1205UB40-4F0-XX-W2A-F1  
Description: Define 4 Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

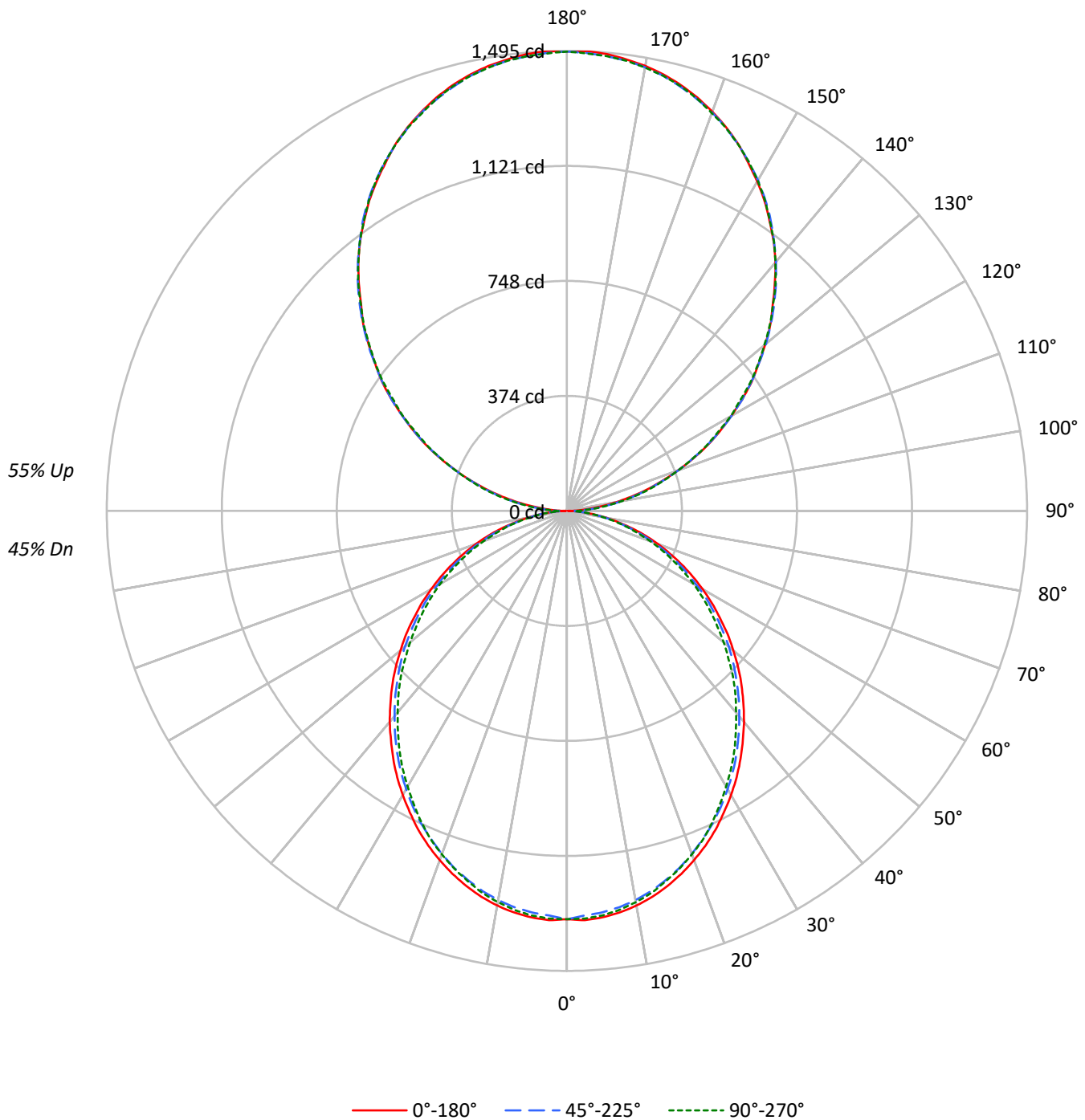
Lumens per Lamp: N/A  
Luminaire Lumens: 7550.9 lumens  
Efficiency: N/A  
Efficacy: 106.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 70.9  
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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 81 | 81 | 81 | 66 | 66 | 66 | 52 | 52 | 52 |
| 1   | 97  | 92  | 88  | 85  | 88 | 85 | 81 | 78 | 71 | 68 | 66 | 58 | 56 | 54 | 46 | 45 | 44 |
| 2   | 88  | 81  | 75  | 69  | 80 | 74 | 69 | 64 | 62 | 58 | 55 | 51 | 48 | 45 | 40 | 38 | 37 |
| 3   | 80  | 71  | 64  | 58  | 73 | 65 | 59 | 54 | 55 | 50 | 46 | 45 | 41 | 38 | 36 | 33 | 31 |
| 4   | 73  | 63  | 55  | 49  | 67 | 58 | 51 | 46 | 48 | 43 | 39 | 40 | 36 | 33 | 32 | 29 | 27 |
| 5   | 67  | 56  | 48  | 42  | 61 | 51 | 44 | 39 | 43 | 38 | 34 | 36 | 32 | 29 | 29 | 26 | 23 |
| 6   | 62  | 50  | 42  | 36  | 57 | 46 | 39 | 34 | 39 | 33 | 29 | 32 | 28 | 25 | 26 | 23 | 21 |
| 7   | 57  | 45  | 37  | 32  | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 29 | 25 | 22 | 24 | 21 | 18 |
| 8   | 53  | 41  | 33  | 28  | 49 | 38 | 31 | 26 | 32 | 27 | 23 | 27 | 23 | 20 | 22 | 19 | 16 |
| 9   | 49  | 37  | 30  | 25  | 45 | 35 | 28 | 23 | 29 | 24 | 21 | 25 | 21 | 18 | 20 | 17 | 15 |
| 10  | 46  | 34  | 27  | 22  | 42 | 32 | 25 | 21 | 27 | 22 | 18 | 23 | 19 | 16 | 19 | 16 | 13 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10821 | 10821 | 10821 |
| 5°  | 10830 | 10510 | 10523 |
| 10° | 10738 | 10218 | 10146 |
| 15° | 10584 | 9871  | 9722  |
| 20° | 10387 | 9495  | 9283  |
| 25° | 10166 | 9099  | 8810  |
| 30° | 9899  | 8671  | 8291  |
| 35° | 9623  | 8232  | 7789  |
| 40° | 9335  | 7759  | 7255  |
| 45° | 9032  | 7286  | 6756  |
| 50° | 8697  | 6827  | 6204  |
| 55° | 8334  | 6291  | 5655  |
| 60° | 7961  | 5703  | 5084  |
| 65° | 7536  | 5096  | 4439  |
| 70° | 7045  | 4367  | 3750  |
| 75° | 6311  | 3519  | 3003  |
| 80° | 5380  | 2545  | 2113  |
| 85° | 4177  | 1417  | 1136  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9032 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 125.1  | 1.7       |
| 10°-20°   | 352.4  | 4.7       |
| 20°-30°   | 518.6  | 6.9       |
| 30°-40°   | 602.8  | 8.0       |
| 40°-50°   | 602.8  | 8.0       |
| 50°-60°   | 527.2  | 7.0       |
| 60°-70°   | 391.4  | 5.2       |
| 70°-80°   | 222.1  | 2.9       |
| 80°-90°   | 66.8   | 0.9       |
| 90°-100°  | 97.3   | 1.3       |
| 100°-110° | 291.4  | 3.9       |
| 110°-120° | 495.1  | 6.6       |
| 120°-130° | 652.9  | 8.6       |
| 130°-140° | 733.4  | 9.7       |
| 140°-150° | 720.8  | 9.5       |
| 150°-160° | 606.2  | 8.0       |
| 160°-170° | 403.4  | 5.3       |
| 170°-180° | 141.2  | 1.9       |
| 0°-30°    | 996.1  | 13.2      |
| 0°-40°    | 1598.9 | 21.2      |
| 0°-60°    | 2728.9 | 36.1      |
| 0°-90°    | 3409.2 | 45.1      |
| 90°-120°  | 883.8  | 11.7      |
| 90°-150°  | 2990.9 | 39.6      |
| 90°-180°  | 4142.0 | 54.9      |
| 0°-180°   | 7550.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1327 | 1327  | 1327 | 1327  | 1327 |      |
| 5°   | 1326 | 1322  | 1310 | 1322  | 1320 | 126  |
| 15°  | 1262 | 1258  | 1242 | 1248  | 1245 | 356  |
| 25°  | 1143 | 1136  | 1121 | 1122  | 1118 | 526  |
| 35°  | 984  | 976   | 961  | 954   | 948  | 615  |
| 45°  | 803  | 795   | 778  | 767   | 763  | 619  |
| 55°  | 607  | 604   | 589  | 576   | 570  | 544  |
| 65°  | 412  | 406   | 396  | 385   | 380  | 407  |
| 75°  | 219  | 214   | 208  | 204   | 203  | 232  |
| 85°  | 57   | 57    | 55   | 55    | 54   | 62   |
| 90°  | 4    | 16    | 25   | 32    | 35   | 9    |
| 95°  | 69   | 80    | 88   | 91    | 91   | 75   |
| 105° | 269  | 270   | 275  | 278   | 282  | 285  |
| 115° | 503  | 503   | 501  | 500   | 499  | 496  |
| 125° | 733  | 733   | 732  | 730   | 727  | 653  |
| 135° | 946  | 952   | 952  | 950   | 947  | 731  |
| 145° | 1149 | 1153  | 1154 | 1153  | 1150 | 719  |
| 155° | 1316 | 1316  | 1315 | 1320  | 1315 | 606  |
| 165° | 1433 | 1429  | 1427 | 1434  | 1429 | 404  |
| 175° | 1490 | 1485  | 1484 | 1492  | 1484 | 142  |
| 180° | 1493 | 1493  | 1493 | 1493  | 1493 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1327.0 | 1327.0 | 1327.0 | 1327.0 | 1327.0 |
| 2.5°   | 1331.3 | 1328.1 | 1316.4 | 1327.0 | 1325.9 |
| 5°     | 1325.9 | 1321.7 | 1310.0 | 1321.7 | 1319.6 |
| 7.5°   | 1316.4 | 1312.1 | 1299.4 | 1308.9 | 1307.9 |
| 10°    | 1302.5 | 1298.3 | 1284.5 | 1293.0 | 1290.8 |
| 12.5°  | 1284.5 | 1280.2 | 1265.3 | 1274.9 | 1271.7 |
| 15°    | 1262.1 | 1257.9 | 1241.9 | 1248.3 | 1245.1 |
| 17.5°  | 1236.6 | 1231.3 | 1216.4 | 1220.7 | 1218.5 |
| 20°    | 1207.9 | 1202.6 | 1186.6 | 1189.8 | 1187.7 |
| 22.5°  | 1177.1 | 1169.6 | 1153.7 | 1160.1 | 1155.8 |
| 25°    | 1143.0 | 1135.6 | 1120.7 | 1121.8 | 1117.5 |
| 27.5°  | 1104.8 | 1097.3 | 1083.5 | 1081.4 | 1076.1 |
| 30°    | 1066.5 | 1058.0 | 1044.2 | 1039.9 | 1034.6 |
| 32.5°  | 1026.1 | 1018.6 | 1003.8 | 998.4  | 993.1  |
| 35°    | 983.6  | 976.1  | 961.2  | 953.8  | 948.5  |
| 37.5°  | 938.9  | 932.5  | 916.6  | 909.1  | 901.7  |
| 40°    | 895.3  | 886.8  | 870.8  | 860.2  | 854.9  |
| 42.5°  | 848.5  | 844.3  | 826.2  | 813.4  | 810.2  |
| 45°    | 802.8  | 795.3  | 778.3  | 766.6  | 763.4  |
| 47.5°  | 754.9  | 749.6  | 733.7  | 720.9  | 712.4  |
| 50°    | 706.0  | 701.8  | 686.9  | 672.0  | 665.6  |
| 52.5°  | 658.2  | 652.9  | 636.9  | 624.2  | 615.7  |
| 55°    | 607.1  | 604.0  | 589.1  | 576.3  | 569.9  |
| 57.5°  | 559.3  | 556.1  | 541.2  | 528.5  | 522.1  |
| 60°    | 509.3  | 504.0  | 490.2  | 480.6  | 475.3  |
| 62.5°  | 460.4  | 456.2  | 441.3  | 432.8  | 427.4  |
| 65°    | 411.5  | 406.2  | 395.5  | 384.9  | 379.6  |
| 67.5°  | 361.5  | 357.3  | 346.6  | 336.0  | 334.9  |
| 70°    | 315.8  | 308.4  | 299.9  | 291.3  | 288.2  |
| 72.5°  | 266.9  | 259.4  | 253.1  | 246.7  | 243.5  |
| 75°    | 219.0  | 213.7  | 208.4  | 204.2  | 203.1  |
| 77.5°  | 172.3  | 170.1  | 164.8  | 163.7  | 160.6  |
| 80°    | 130.8  | 127.6  | 125.5  | 123.3  | 122.3  |
| 82.5°  | 90.4   | 89.3   | 89.3   | 88.3   | 87.2   |
| 85°    | 57.4   | 57.4   | 55.3   | 55.3   | 54.2   |
| 87.5°  | 27.6   | 26.6   | 25.5   | 25.5   | 25.5   |
| 90°    | 3.5    | 16.2   | 25.4   | 32.3   | 34.6   |
| 92.5°  | 30.0   | 45.0   | 50.8   | 54.3   | 55.4   |
| 95°    | 69.3   | 79.7   | 87.7   | 91.2   | 91.2   |
| 97.5°  | 110.8  | 120.1  | 129.3  | 133.9  | 133.9  |
| 100°   | 161.6  | 166.2  | 176.6  | 178.9  | 178.9  |
| 102.5° | 214.7  | 215.9  | 225.1  | 228.6  | 229.7  |
| 105°   | 269.0  | 270.1  | 274.8  | 278.2  | 281.7  |
| 107.5° | 325.6  | 326.7  | 327.9  | 332.5  | 331.3  |
| 110°   | 383.3  | 385.6  | 384.4  | 382.1  | 385.6  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 443.3  | 443.3  | 441.0  | 441.0  | 441.0  |
| 115°   | 503.4  | 503.4  | 501.0  | 499.9  | 498.7  |
| 117.5° | 559.9  | 559.9  | 558.8  | 555.3  | 551.8  |
| 120°   | 616.5  | 621.1  | 617.6  | 611.9  | 614.2  |
| 122.5° | 675.4  | 676.5  | 675.4  | 671.9  | 666.1  |
| 125°   | 733.1  | 733.1  | 731.9  | 729.6  | 727.3  |
| 127.5° | 785.0  | 788.5  | 786.2  | 783.9  | 782.7  |
| 130°   | 840.5  | 843.9  | 843.9  | 841.6  | 837.0  |
| 132.5° | 897.0  | 899.3  | 898.2  | 895.9  | 894.7  |
| 135°   | 945.5  | 952.4  | 952.4  | 950.1  | 946.7  |
| 137.5° | 999.8  | 1003.2 | 1005.6 | 1002.1 | 1003.2 |
| 140°   | 1054.0 | 1056.3 | 1056.3 | 1055.2 | 1054.0 |
| 142.5° | 1103.7 | 1106.0 | 1104.8 | 1104.8 | 1104.8 |
| 145°   | 1148.7 | 1153.3 | 1154.5 | 1153.3 | 1149.9 |
| 147.5° | 1194.9 | 1200.7 | 1199.5 | 1198.3 | 1197.2 |
| 150°   | 1236.4 | 1241.1 | 1241.1 | 1241.1 | 1239.9 |
| 152.5° | 1275.7 | 1278.0 | 1279.2 | 1282.6 | 1279.2 |
| 155°   | 1316.1 | 1316.1 | 1315.0 | 1319.6 | 1315.0 |
| 157.5° | 1350.7 | 1348.4 | 1348.4 | 1351.9 | 1348.4 |
| 160°   | 1380.8 | 1379.6 | 1378.4 | 1381.9 | 1376.1 |
| 162.5° | 1408.5 | 1405.0 | 1403.8 | 1410.8 | 1405.0 |
| 165°   | 1432.7 | 1429.2 | 1426.9 | 1433.9 | 1429.2 |
| 167.5° | 1452.3 | 1447.7 | 1447.7 | 1454.6 | 1447.7 |
| 170°   | 1468.5 | 1462.7 | 1463.9 | 1470.8 | 1462.7 |
| 172.5° | 1480.0 | 1475.4 | 1475.4 | 1483.5 | 1475.4 |
| 175°   | 1490.4 | 1484.7 | 1483.5 | 1491.6 | 1483.5 |
| 177.5° | 1495.1 | 1489.3 | 1489.3 | 1497.4 | 1488.1 |
| 180°   | 1492.7 | 1492.7 | 1492.7 | 1492.7 | 1492.7 |

(END OF REPORT)