

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: P1000075

Luminaire Tested: SA2XXRDIP-B865D1080UB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000075  
REPORT IS A COMBINATION OF REPORTS P988632 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B865D1080UB2750-4F0-XX-W2A-F\_4000K  
Description: Define 2 Regressed Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865}  
{m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

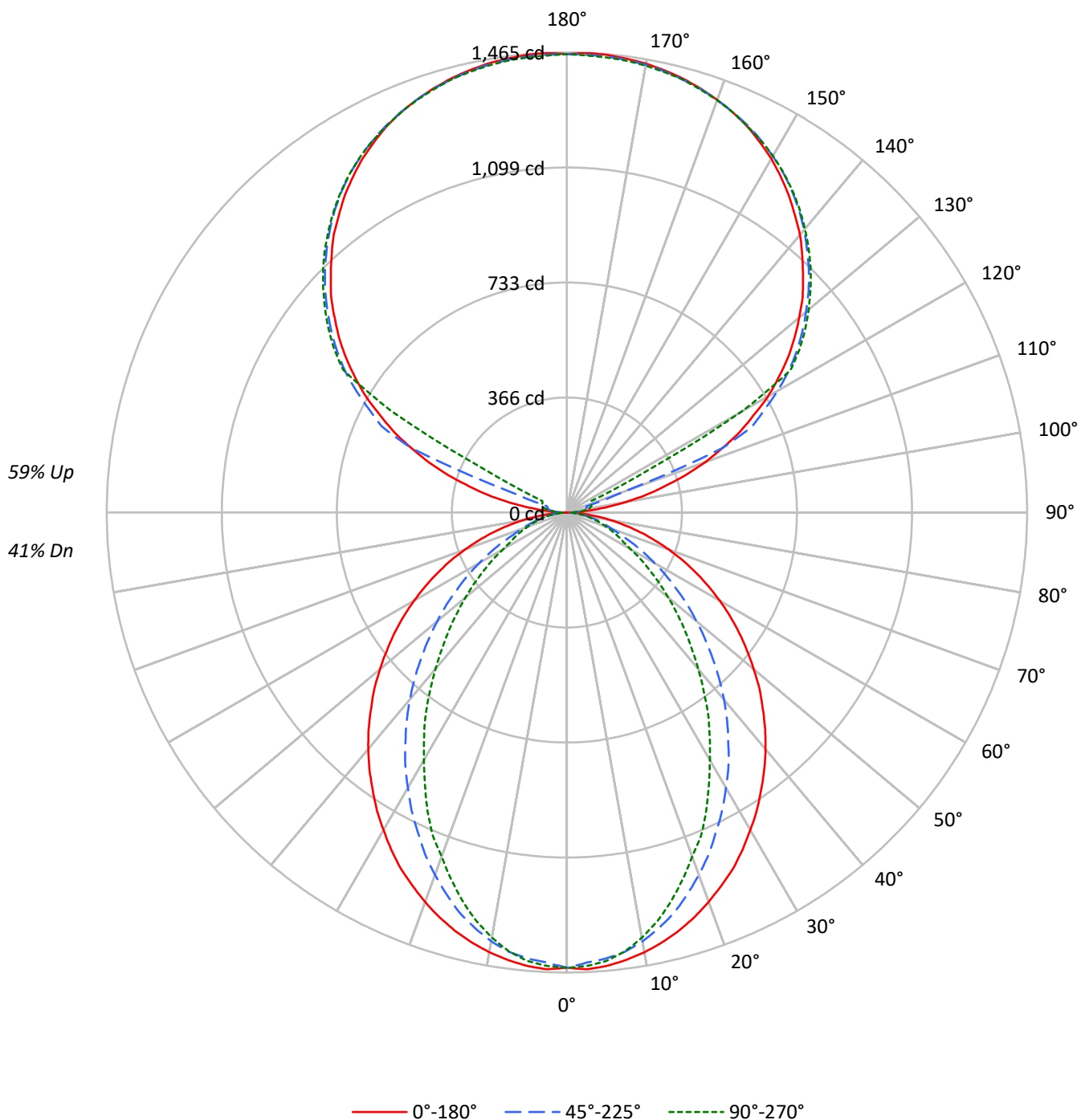
Lumens per Lamp: N/A  
Luminaire Lumens: 7263.0 lumens  
Efficiency: N/A  
Efficacy: 88.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 81.8  
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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 105 | 105 | 105 | 105 | 96 | 96 | 96 | 96 | 78 | 78 | 78 | 63 | 63 | 63 | 48 | 48 | 48 | 41 |    |    |
| 1   | 96  | 92  | 88  | 85  | 88 | 84 | 81 | 78 | 69 | 67 | 65 | 56 | 54 | 53 | 43 | 42 | 41 | 35 |    |    |
| 2   | 88  | 81  | 75  | 70  | 80 | 74 | 69 | 65 | 61 | 58 | 54 | 49 | 47 | 45 | 38 | 37 | 35 | 30 |    |    |
| 3   | 80  | 71  | 64  | 59  | 73 | 65 | 59 | 55 | 54 | 50 | 46 | 44 | 41 | 38 | 34 | 32 | 31 | 26 |    |    |
| 4   | 74  | 63  | 56  | 50  | 67 | 58 | 52 | 47 | 48 | 44 | 40 | 39 | 36 | 33 | 31 | 29 | 27 | 23 |    |    |
| 5   | 68  | 57  | 49  | 43  | 62 | 52 | 45 | 40 | 43 | 38 | 34 | 35 | 32 | 29 | 28 | 25 | 23 | 20 |    |    |
| 6   | 62  | 51  | 43  | 37  | 57 | 47 | 40 | 35 | 39 | 34 | 30 | 32 | 28 | 25 | 26 | 23 | 21 | 18 |    |    |
| 7   | 58  | 46  | 38  | 33  | 53 | 42 | 36 | 31 | 36 | 30 | 27 | 29 | 26 | 23 | 23 | 21 | 19 | 16 |    |    |
| 8   | 54  | 42  | 34  | 29  | 49 | 39 | 32 | 27 | 33 | 27 | 24 | 27 | 23 | 20 | 22 | 19 | 17 | 14 |    |    |
| 9   | 50  | 38  | 31  | 26  | 46 | 35 | 29 | 24 | 30 | 25 | 21 | 25 | 21 | 18 | 20 | 17 | 15 | 13 |    |    |
| 10  | 47  | 35  | 28  | 23  | 43 | 32 | 26 | 22 | 28 | 23 | 19 | 23 | 19 | 17 | 19 | 16 | 14 | 12 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 22945 | 22945 | 22945 |
| 5°  | 22982 | 21828 | 21666 |
| 10° | 22755 | 20703 | 20020 |
| 15° | 22442 | 19374 | 18143 |
| 20° | 22028 | 17863 | 16179 |
| 25° | 21605 | 16312 | 14383 |
| 30° | 21034 | 14804 | 12420 |
| 35° | 20477 | 13280 | 10736 |
| 40° | 19911 | 11786 | 9001  |
| 45° | 19252 | 10242 | 7487  |
| 50° | 18569 | 8753  | 6096  |
| 55° | 17861 | 7265  | 4840  |
| 60° | 17035 | 5811  | 3662  |
| 65° | 16086 | 4429  | 2976  |
| 70° | 14941 | 3214  | 2367  |
| 75° | 13504 | 2450  | 1807  |
| 80° | 11417 | 1660  | 1213  |
| 85° | 7967  | 759   | 586   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 19252 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 135.8  | 1.9       |
| 10°-20°   | 372.9  | 5.1       |
| 20°-30°   | 523.6  | 7.2       |
| 30°-40°   | 570.7  | 7.9       |
| 40°-50°   | 524.5  | 7.2       |
| 50°-60°   | 412.0  | 5.7       |
| 60°-70°   | 268.1  | 3.7       |
| 70°-80°   | 138.0  | 1.9       |
| 80°-90°   | 37.8   | 0.5       |
| 90°-100°  | 48.1   | 0.7       |
| 100°-110° | 179.4  | 2.5       |
| 110°-120° | 475.9  | 6.6       |
| 120°-130° | 789.3  | 10.9      |
| 130°-140° | 838.4  | 11.5      |
| 140°-150° | 779.2  | 10.7      |
| 150°-160° | 626.5  | 8.6       |
| 160°-170° | 403.7  | 5.6       |
| 170°-180° | 138.9  | 1.9       |
| 0°-30°    | 1032.3 | 14.2      |
| 0°-40°    | 1603.1 | 22.1      |
| 0°-60°    | 2539.6 | 35.0      |
| 0°-90°    | 2983.6 | 41.1      |
| 90°-120°  | 703.5  | 9.7       |
| 90°-150°  | 3110.3 | 42.8      |
| 90°-180°  | 4279.0 | 58.9      |
| 0°-180°   | 7263.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1450 | 1450  | 1450 | 1450  | 1450 |      |
| 5°   | 1450 | 1443  | 1426 | 1438  | 1434 | 137  |
| 15°  | 1379 | 1364  | 1320 | 1295  | 1282 | 388  |
| 25°  | 1251 | 1209  | 1123 | 1069  | 1049 | 576  |
| 35°  | 1078 | 1011  | 896  | 813   | 784  | 675  |
| 45°  | 882  | 794   | 656  | 563   | 531  | 681  |
| 55°  | 670  | 568   | 426  | 348   | 323  | 599  |
| 65°  | 452  | 346   | 228  | 184   | 180  | 449  |
| 75°  | 241  | 150   | 105  | 96    | 94   | 255  |
| 85°  | 56   | 29    | 25   | 25    | 25   | 65   |
| 90°  | 1    | 13    | 21   | 26    | 28   | 7    |
| 95°  | 69   | 34    | 41   | 46    | 45   | 81   |
| 105° | 321  | 353   | 64   | 76    | 80   | 343  |
| 115° | 607  | 625   | 652  | 163   | 87   | 598  |
| 125° | 859  | 872   | 892  | 900   | 903  | 766  |
| 135° | 1063 | 1080  | 1089 | 1100  | 1097 | 821  |
| 145° | 1233 | 1232  | 1250 | 1257  | 1252 | 771  |
| 155° | 1357 | 1348  | 1360 | 1367  | 1358 | 625  |
| 165° | 1430 | 1424  | 1427 | 1434  | 1427 | 404  |
| 175° | 1463 | 1456  | 1458 | 1465  | 1454 | 139  |
| 180° | 1460 | 1460  | 1460 | 1460  | 1460 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1449.5 | 1449.5 | 1449.5 | 1449.5 | 1449.5 |
| 2.5°   | 1456.0 | 1449.5 | 1435.0 | 1448.1 | 1445.5 |
| 5°     | 1449.5 | 1442.9 | 1425.8 | 1437.7 | 1433.7 |
| 7.5°   | 1437.7 | 1429.8 | 1411.4 | 1416.7 | 1410.1 |
| 10°    | 1421.9 | 1412.7 | 1386.5 | 1382.6 | 1374.7 |
| 12.5°  | 1402.2 | 1390.4 | 1355.0 | 1347.1 | 1332.7 |
| 15°    | 1378.6 | 1364.2 | 1319.6 | 1294.7 | 1281.6 |
| 17.5°  | 1351.1 | 1330.1 | 1275.0 | 1246.1 | 1225.2 |
| 20°    | 1319.6 | 1293.4 | 1227.8 | 1195.0 | 1166.1 |
| 22.5°  | 1285.5 | 1255.3 | 1179.2 | 1134.6 | 1115.0 |
| 25°    | 1251.4 | 1209.4 | 1122.8 | 1069.1 | 1049.4 |
| 27.5°  | 1210.7 | 1166.1 | 1070.4 | 1008.7 | 978.5  |
| 30°    | 1167.4 | 1117.6 | 1012.7 | 945.8  | 910.3  |
| 32.5°  | 1125.5 | 1065.1 | 957.6  | 878.9  | 846.1  |
| 35°    | 1078.2 | 1011.3 | 895.9  | 813.3  | 784.4  |
| 37.5°  | 1032.3 | 960.2  | 838.2  | 747.7  | 714.9  |
| 40°    | 983.8  | 905.1  | 777.9  | 684.7  | 650.6  |
| 42.5°  | 934.0  | 850.0  | 717.5  | 620.4  | 587.7  |
| 45°    | 881.5  | 793.6  | 655.9  | 562.7  | 531.2  |
| 47.5°  | 831.6  | 738.5  | 596.8  | 503.7  | 474.8  |
| 50°    | 776.5  | 683.4  | 539.1  | 448.6  | 421.1  |
| 52.5°  | 722.8  | 624.4  | 484.0  | 397.5  | 372.5  |
| 55°    | 670.3  | 568.0  | 426.3  | 347.6  | 322.7  |
| 57.5°  | 616.5  | 511.6  | 375.2  | 301.7  | 280.7  |
| 60°    | 561.4  | 456.5  | 321.4  | 254.5  | 233.5  |
| 62.5°  | 507.6  | 402.7  | 275.5  | 212.5  | 202.0  |
| 65°    | 452.5  | 346.3  | 228.2  | 183.6  | 179.7  |
| 67.5°  | 400.1  | 293.8  | 183.6  | 161.3  | 157.4  |
| 70°    | 345.0  | 242.7  | 152.2  | 139.0  | 133.8  |
| 72.5°  | 292.5  | 195.4  | 127.2  | 116.7  | 114.1  |
| 75°    | 241.4  | 149.5  | 104.9  | 95.8   | 94.4   |
| 77.5°  | 190.2  | 106.2  | 82.6   | 77.4   | 74.8   |
| 80°    | 143.0  | 76.1   | 63.0   | 57.7   | 57.7   |
| 82.5°  | 99.7   | 51.2   | 43.3   | 40.7   | 40.7   |
| 85°    | 56.4   | 28.9   | 24.9   | 24.9   | 24.9   |
| 87.5°  | 21.0   | 10.5   | 10.5   | 9.2    | 9.2    |
| 90°    | 1.1    | 12.7   | 21.1   | 26.4   | 28.5   |
| 92.5°  | 26.4   | 22.2   | 25.3   | 27.5   | 28.5   |
| 95°    | 68.7   | 33.8   | 41.2   | 46.5   | 45.4   |
| 97.5°  | 123.6  | 37.0   | 53.9   | 57.0   | 58.1   |
| 100°   | 187.0  | 42.2   | 60.2   | 68.7   | 70.8   |
| 102.5° | 256.7  | 254.6  | 62.3   | 73.9   | 77.1   |
| 105°   | 321.1  | 352.8  | 64.4   | 76.0   | 80.3   |
| 107.5° | 396.1  | 422.5  | 66.5   | 78.2   | 82.4   |
| 110°   | 467.9  | 490.1  | 184.8  | 79.2   | 83.4   |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 535.5  | 554.5  | 536.6  | 81.3   | 84.5   |
| 115°   | 607.3  | 625.3  | 651.7  | 162.7  | 86.6   |
| 117.5° | 669.7  | 690.8  | 708.7  | 557.7  | 281.0  |
| 120°   | 739.4  | 755.2  | 774.2  | 786.9  | 644.3  |
| 122.5° | 798.5  | 815.4  | 836.5  | 842.9  | 843.9  |
| 125°   | 858.7  | 872.5  | 892.5  | 899.9  | 903.1  |
| 127.5° | 913.7  | 928.4  | 944.3  | 954.8  | 955.9  |
| 130°   | 965.4  | 982.3  | 993.9  | 1005.5 | 1004.5 |
| 132.5° | 1018.2 | 1032.0 | 1043.6 | 1053.1 | 1052.0 |
| 135°   | 1062.6 | 1079.5 | 1089.0 | 1099.6 | 1097.4 |
| 137.5° | 1109.1 | 1121.7 | 1132.3 | 1142.9 | 1139.7 |
| 140°   | 1154.5 | 1162.9 | 1174.5 | 1184.1 | 1178.8 |
| 142.5° | 1192.5 | 1199.9 | 1213.6 | 1222.1 | 1216.8 |
| 145°   | 1232.6 | 1231.6 | 1249.5 | 1256.9 | 1251.7 |
| 147.5° | 1267.5 | 1264.3 | 1282.3 | 1287.6 | 1283.3 |
| 150°   | 1301.3 | 1293.9 | 1310.8 | 1317.1 | 1311.9 |
| 152.5° | 1329.8 | 1321.4 | 1337.2 | 1343.5 | 1336.2 |
| 155°   | 1357.3 | 1347.8 | 1360.4 | 1366.8 | 1358.3 |
| 157.5° | 1379.5 | 1371.0 | 1380.5 | 1387.9 | 1379.5 |
| 160°   | 1398.5 | 1392.1 | 1398.5 | 1404.8 | 1397.4 |
| 162.5° | 1415.4 | 1409.0 | 1414.3 | 1421.7 | 1412.2 |
| 165°   | 1430.2 | 1423.8 | 1427.0 | 1434.4 | 1427.0 |
| 167.5° | 1441.8 | 1435.4 | 1438.6 | 1446.0 | 1436.5 |
| 170°   | 1451.3 | 1444.9 | 1447.1 | 1454.5 | 1444.9 |
| 172.5° | 1457.6 | 1451.3 | 1453.4 | 1460.8 | 1451.3 |
| 175°   | 1462.9 | 1455.5 | 1457.6 | 1465.0 | 1454.5 |
| 177.5° | 1465.0 | 1457.6 | 1458.7 | 1466.1 | 1456.6 |
| 180°   | 1459.7 | 1459.7 | 1459.7 | 1459.7 | 1459.7 |

(END OF REPORT)