

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: P1000426

Luminaire Tested: SA4XXRDP-B1020DB40-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1000426  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA4XXRDP-B1020DB40-4F0-XX-W2A-F  
Description: Define 4 Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

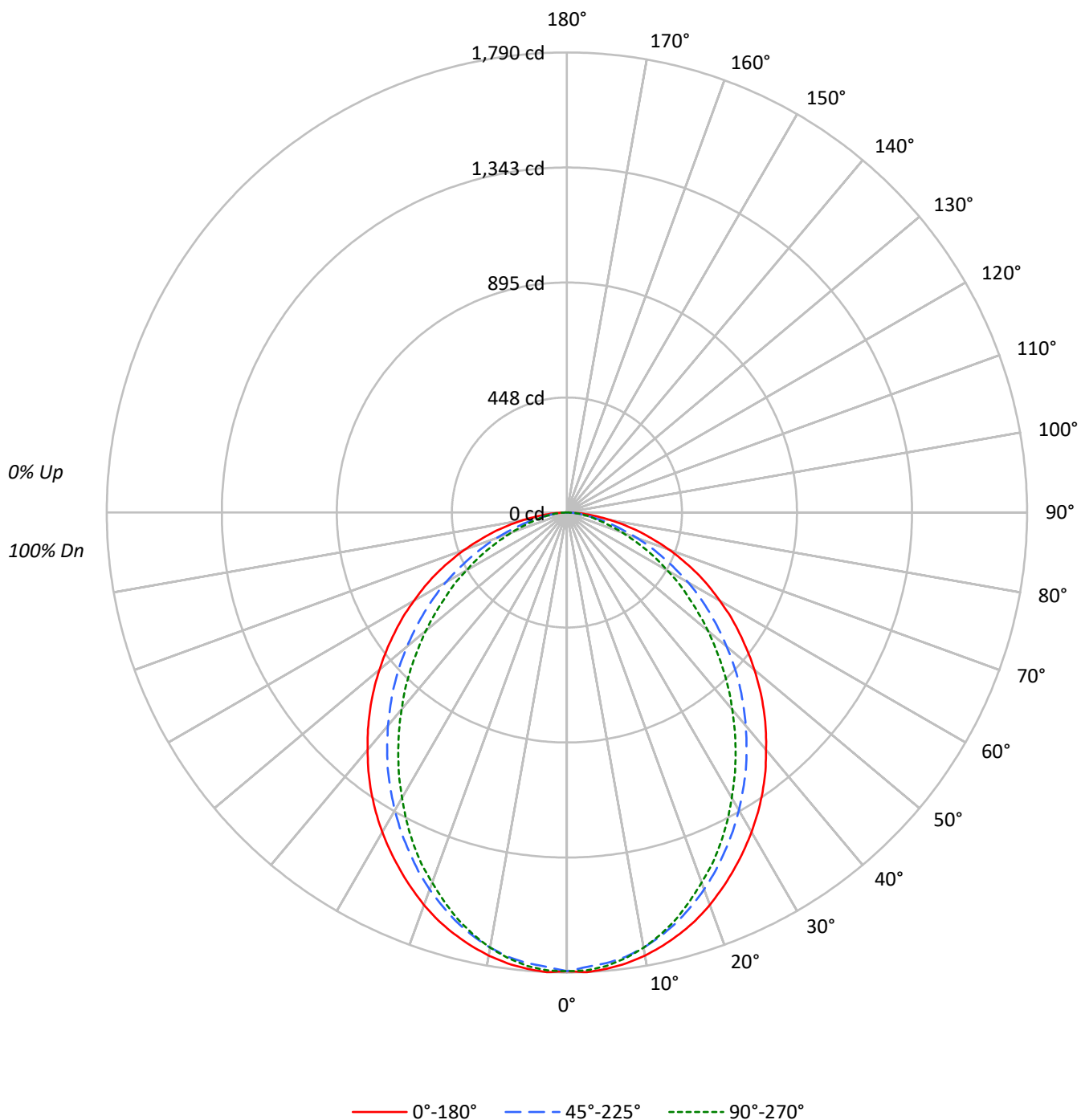
Lumens per Lamp: N/A  
Luminaire Lumens: 4124.0 lumens  
Efficiency: N/A  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 46.8  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  |  | 61  | 54  | 49  |  | 59  |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  |  | 55  | 49  | 44  |  | 53  |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  |  | 50  | 44  | 39  |  | 49  |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  |  | 46  | 40  | 35  |  | 45  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 43  | 36  | 32  |  | 42  |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 29  |  | 39  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 14554 | 14554 | 14554 |
| 5°  | 14588 | 14408 | 14498 |
| 10° | 14495 | 14235 | 14235 |
| 15° | 14329 | 13937 | 13833 |
| 20° | 14101 | 13543 | 13294 |
| 25° | 13808 | 13083 | 12751 |
| 30° | 13524 | 12598 | 12070 |
| 35° | 13210 | 12094 | 11387 |
| 40° | 12831 | 11522 | 10649 |
| 45° | 12482 | 10953 | 9897  |
| 50° | 12084 | 10299 | 9102  |
| 55° | 11658 | 9618  | 8237  |
| 60° | 11188 | 8870  | 7355  |
| 65° | 10759 | 7938  | 6487  |
| 70° | 10133 | 6907  | 5508  |
| 75° | 9345  | 5728  | 4477  |
| 80° | 8152  | 4363  | 4109  |
| 85° | 6905  | 3967  | 3705  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12482 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 167.8  | 4.1       |
| 10°-20°   | 467.9  | 11.3      |
| 20°-30°   | 675.6  | 16.4      |
| 30°-40°   | 765.7  | 18.6      |
| 40°-50°   | 739.3  | 17.9      |
| 50°-60°   | 614.6  | 14.9      |
| 60°-70°   | 424.2  | 10.3      |
| 70°-80°   | 214.4  | 5.2       |
| 80°-90°   | 54.4   | 1.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 1311.4 | 31.8      |
| 0°-40°    | 2077.1 | 50.4      |
| 0°-60°    | 3431.0 | 83.2      |
| 0°-90°    | 4124.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4124.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1785 | 1785  | 1785 | 1785  | 1785 |      |
| 5°  | 1782 | 1777  | 1760 | 1774  | 1771 | 169  |
| 15° | 1697 | 1685  | 1651 | 1648  | 1639 | 478  |
| 25° | 1535 | 1510  | 1454 | 1431  | 1417 | 707  |
| 35° | 1327 | 1283  | 1215 | 1168  | 1144 | 829  |
| 45° | 1082 | 1032  | 950  | 883   | 858  | 835  |
| 55° | 820  | 765   | 676  | 605   | 579  | 734  |
| 65° | 558  | 499   | 411  | 353   | 336  | 551  |
| 75° | 297  | 246   | 182  | 150   | 142  | 313  |
| 85° | 74   | 46    | 42   | 40    | 40   | 85   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1784.8 | 1784.8 | 1784.8 | 1784.8 | 1784.8 |
| 2.5°  | 1790.3 | 1784.8 | 1769.8 | 1784.8 | 1783.4 |
| 5°    | 1782.1 | 1776.6 | 1760.2 | 1773.9 | 1771.1 |
| 7.5°  | 1769.8 | 1764.3 | 1743.8 | 1753.4 | 1749.3 |
| 10°   | 1750.6 | 1743.8 | 1719.2 | 1724.7 | 1719.2 |
| 12.5° | 1726.0 | 1717.8 | 1687.8 | 1690.5 | 1682.3 |
| 15°   | 1697.3 | 1685.0 | 1650.9 | 1648.2 | 1638.6 |
| 17.5° | 1664.5 | 1646.8 | 1607.2 | 1600.3 | 1586.7 |
| 20°   | 1624.9 | 1607.2 | 1560.7 | 1549.8 | 1532.0 |
| 22.5° | 1581.2 | 1560.7 | 1510.1 | 1492.4 | 1478.7 |
| 25°   | 1534.7 | 1510.1 | 1454.1 | 1430.9 | 1417.2 |
| 27.5° | 1486.9 | 1456.8 | 1398.1 | 1370.7 | 1351.6 |
| 30°   | 1436.3 | 1402.2 | 1337.9 | 1303.8 | 1281.9 |
| 32.5° | 1383.0 | 1343.4 | 1276.4 | 1235.4 | 1214.9 |
| 35°   | 1327.0 | 1283.3 | 1214.9 | 1168.5 | 1143.9 |
| 37.5° | 1268.2 | 1223.1 | 1148.0 | 1097.4 | 1072.8 |
| 40°   | 1205.4 | 1160.3 | 1082.4 | 1025.0 | 1000.4 |
| 42.5° | 1145.2 | 1097.4 | 1015.4 | 956.6  | 930.7  |
| 45°   | 1082.4 | 1031.8 | 949.8  | 882.8  | 858.2  |
| 47.5° | 1018.1 | 966.2  | 881.5  | 811.8  | 784.4  |
| 50°   | 952.5  | 899.2  | 811.8  | 743.4  | 717.5  |
| 52.5° | 885.6  | 833.6  | 743.4  | 673.7  | 646.4  |
| 55°   | 820.0  | 765.3  | 676.5  | 605.4  | 579.4  |
| 57.5° | 755.7  | 698.3  | 610.9  | 538.5  | 519.3  |
| 60°   | 686.0  | 631.4  | 543.9  | 472.9  | 451.0  |
| 62.5° | 623.2  | 565.8  | 475.6  | 411.4  | 395.0  |
| 65°   | 557.6  | 498.8  | 411.4  | 352.6  | 336.2  |
| 67.5° | 489.3  | 433.2  | 351.2  | 299.3  | 280.2  |
| 70°   | 425.0  | 367.6  | 289.7  | 244.6  | 231.0  |
| 72.5° | 356.7  | 306.1  | 233.7  | 196.8  | 184.5  |
| 75°   | 296.6  | 246.0  | 181.8  | 150.3  | 142.1  |
| 77.5° | 233.7  | 190.0  | 135.3  | 113.4  | 110.7  |
| 80°   | 173.6  | 133.9  | 92.9   | 88.8   | 87.5   |
| 82.5° | 121.6  | 86.1   | 67.0   | 64.2   | 62.9   |
| 85°   | 73.8   | 46.5   | 42.4   | 39.6   | 39.6   |
| 87.5° | 31.4   | 20.5   | 19.1   | 17.8   | 19.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)