

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: P999283

Luminaire Tested: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999283  
REPORT IS A COMBINATION OF REPORTS P987832 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B1005D1080UB2750-4F0-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**

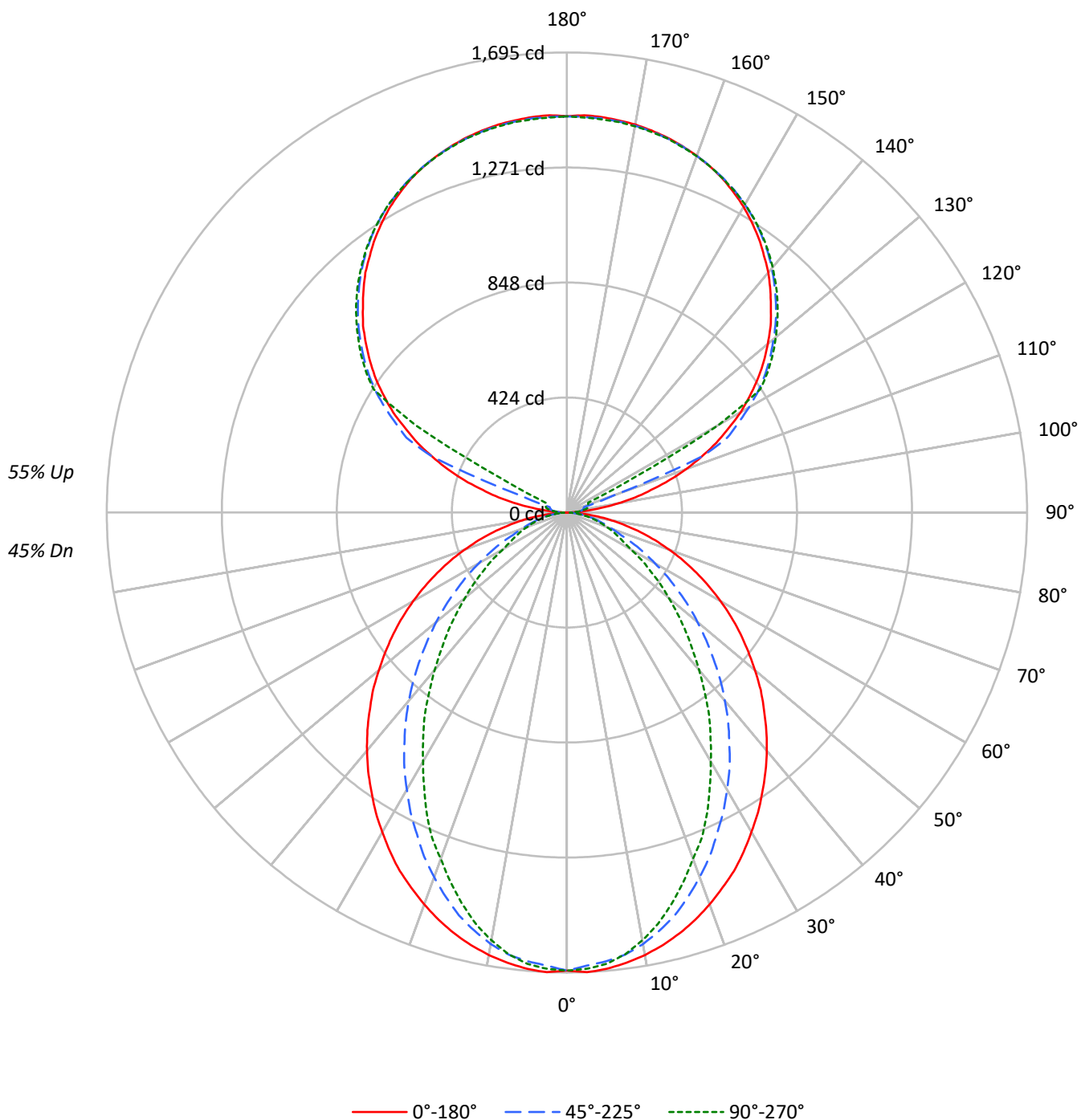
Lumens per Lamp: N/A  
Luminaire Lumens: 7753.0 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 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   | 106 | 106 | 106 | 106 | 97 | 97 | 97 | 97 | 80 | 80 | 80 | 65 | 65 | 65 | 51 | 51 | 51 |
| 1   | 97  | 93  | 89  | 86  | 89 | 85 | 82 | 79 | 71 | 69 | 67 | 58 | 57 | 55 | 46 | 45 | 44 |
| 2   | 89  | 82  | 76  | 71  | 81 | 75 | 70 | 66 | 63 | 59 | 56 | 52 | 49 | 47 | 41 | 39 | 38 |
| 3   | 81  | 72  | 65  | 60  | 74 | 66 | 60 | 55 | 56 | 51 | 48 | 46 | 43 | 40 | 37 | 35 | 33 |
| 4   | 74  | 64  | 56  | 51  | 68 | 59 | 53 | 47 | 50 | 45 | 41 | 41 | 38 | 35 | 33 | 31 | 29 |
| 5   | 68  | 57  | 49  | 44  | 63 | 53 | 46 | 41 | 45 | 40 | 36 | 37 | 33 | 30 | 30 | 27 | 25 |
| 6   | 63  | 52  | 44  | 38  | 58 | 48 | 41 | 36 | 40 | 35 | 31 | 34 | 30 | 27 | 27 | 25 | 22 |
| 7   | 59  | 47  | 39  | 34  | 54 | 43 | 36 | 32 | 37 | 32 | 28 | 31 | 27 | 24 | 25 | 22 | 20 |
| 8   | 54  | 42  | 35  | 30  | 50 | 39 | 33 | 28 | 34 | 28 | 25 | 28 | 24 | 21 | 23 | 20 | 18 |
| 9   | 51  | 39  | 31  | 27  | 46 | 36 | 30 | 25 | 31 | 26 | 22 | 26 | 22 | 19 | 21 | 19 | 16 |
| 10  | 47  | 36  | 29  | 24  | 44 | 33 | 27 | 23 | 29 | 24 | 20 | 24 | 20 | 18 | 20 | 17 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26715 | 26715 | 26715 |
| 5°  | 26759 | 25416 | 25228 |
| 10° | 26494 | 24106 | 23311 |
| 15° | 26130 | 22559 | 21124 |
| 20° | 25649 | 20799 | 18839 |
| 25° | 25156 | 18994 | 16748 |
| 30° | 24492 | 17236 | 14463 |
| 35° | 23844 | 15464 | 12501 |
| 40° | 23184 | 13722 | 10481 |
| 45° | 22417 | 11925 | 8719  |
| 50° | 21623 | 10191 | 7098  |
| 55° | 20797 | 8460  | 5635  |
| 60° | 19836 | 6765  | 4264  |
| 65° | 18731 | 5159  | 3465  |
| 70° | 17396 | 3742  | 2756  |
| 75° | 15719 | 2854  | 2105  |
| 80° | 13293 | 1932  | 1413  |
| 85° | 9281  | 884   | 682   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22417 cd/sqm

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CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_4000K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.2  | 2.0       |
| 10°-20°   | 434.2  | 5.6       |
| 20°-30°   | 609.6  | 7.9       |
| 30°-40°   | 664.5  | 8.6       |
| 40°-50°   | 610.8  | 7.9       |
| 50°-60°   | 479.7  | 6.2       |
| 60°-70°   | 312.2  | 4.0       |
| 70°-80°   | 160.7  | 2.1       |
| 80°-90°   | 43.6   | 0.6       |
| 90°-100°  | 48.1   | 0.6       |
| 100°-110° | 179.4  | 2.3       |
| 110°-120° | 475.9  | 6.1       |
| 120°-130° | 789.3  | 10.2      |
| 130°-140° | 838.4  | 10.8      |
| 140°-150° | 779.2  | 10.1      |
| 150°-160° | 626.5  | 8.1       |
| 160°-170° | 403.7  | 5.2       |
| 170°-180° | 138.9  | 1.8       |
| 0°-30°    | 1202.0 | 15.5      |
| 0°-40°    | 1866.6 | 24.1      |
| 0°-60°    | 2957.0 | 38.1      |
| 0°-90°    | 3473.6 | 44.8      |
| 90°-120°  | 703.5  | 9.1       |
| 90°-150°  | 3110.3 | 40.1      |
| 90°-180°  | 4279.0 | 55.2      |
| 0°-180°   | 7753.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1688 | 1688  | 1688 | 1688  | 1688 |      |
| 5°   | 1688 | 1680  | 1660 | 1674  | 1669 | 160  |
| 15°  | 1605 | 1588  | 1536 | 1508  | 1492 | 452  |
| 25°  | 1457 | 1408  | 1307 | 1245  | 1222 | 670  |
| 35°  | 1256 | 1178  | 1043 | 947   | 913  | 786  |
| 45°  | 1026 | 924   | 764  | 655   | 619  | 793  |
| 55°  | 780  | 661   | 496  | 405   | 376  | 697  |
| 65°  | 527  | 403   | 266  | 214   | 209  | 522  |
| 75°  | 281  | 174   | 122  | 112   | 110  | 297  |
| 85°  | 66   | 34    | 29   | 29    | 29   | 75   |
| 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 |      |

TEST NUMBER: P999283

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_4000K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1687.7 | 1687.7 | 1687.7 | 1687.7 | 1687.7 |
| 2.5°   | 1695.4 | 1687.7 | 1670.9 | 1686.2 | 1683.1 |
| 5°     | 1687.7 | 1680.1 | 1660.2 | 1674.0 | 1669.4 |
| 7.5°   | 1674.0 | 1664.8 | 1643.4 | 1649.5 | 1641.9 |
| 10°    | 1655.6 | 1644.9 | 1614.4 | 1609.8 | 1600.7 |
| 12.5°  | 1632.7 | 1619.0 | 1577.7 | 1568.6 | 1551.8 |
| 15°    | 1605.2 | 1588.4 | 1536.5 | 1507.5 | 1492.2 |
| 17.5°  | 1573.2 | 1548.7 | 1484.6 | 1451.0 | 1426.5 |
| 20°    | 1536.5 | 1506.0 | 1429.6 | 1391.4 | 1357.8 |
| 22.5°  | 1496.8 | 1461.7 | 1373.1 | 1321.2 | 1298.2 |
| 25°    | 1457.1 | 1408.2 | 1307.4 | 1244.8 | 1221.9 |
| 27.5°  | 1409.7 | 1357.8 | 1246.3 | 1174.5 | 1139.4 |
| 30°    | 1359.3 | 1301.3 | 1179.1 | 1101.2 | 1060.0 |
| 32.5°  | 1310.5 | 1240.2 | 1115.0 | 1023.3 | 985.1  |
| 35°    | 1255.5 | 1177.6 | 1043.2 | 947.0  | 913.4  |
| 37.5°  | 1202.0 | 1118.0 | 976.0  | 870.6  | 832.4  |
| 40°    | 1145.5 | 1053.9 | 905.7  | 797.3  | 757.6  |
| 42.5°  | 1087.5 | 989.7  | 835.5  | 722.4  | 684.2  |
| 45°    | 1026.4 | 924.0  | 763.7  | 655.2  | 618.6  |
| 47.5°  | 968.3  | 859.9  | 694.9  | 586.5  | 552.9  |
| 50°    | 904.2  | 795.7  | 627.7  | 522.4  | 490.3  |
| 52.5°  | 841.6  | 727.0  | 563.6  | 462.8  | 433.8  |
| 55°    | 780.5  | 661.3  | 496.4  | 404.7  | 375.7  |
| 57.5°  | 717.9  | 595.7  | 436.8  | 351.3  | 326.9  |
| 60°    | 653.7  | 531.5  | 374.2  | 296.3  | 271.9  |
| 62.5°  | 591.1  | 468.9  | 320.7  | 247.4  | 235.2  |
| 65°    | 526.9  | 403.2  | 265.8  | 213.8  | 209.2  |
| 67.5°  | 465.8  | 342.1  | 213.8  | 187.9  | 183.3  |
| 70°    | 401.7  | 282.6  | 177.2  | 161.9  | 155.8  |
| 72.5°  | 340.6  | 227.6  | 148.2  | 135.9  | 132.9  |
| 75°    | 281.0  | 174.1  | 122.2  | 111.5  | 110.0  |
| 77.5°  | 221.5  | 123.7  | 96.2   | 90.1   | 87.1   |
| 80°    | 166.5  | 88.6   | 73.3   | 67.2   | 67.2   |
| 82.5°  | 116.1  | 59.6   | 50.4   | 47.3   | 47.3   |
| 85°    | 65.7   | 33.6   | 29.0   | 29.0   | 29.0   |
| 87.5°  | 24.4   | 12.2   | 12.2   | 10.7   | 10.7   |
| 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   |

TEST NUMBER: P999283

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_4000K

**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)