

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: P999280

Luminaire Tested: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P999280  
REPORT IS A COMBINATION OF REPORTS P987829 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K  
Description: Define 2 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

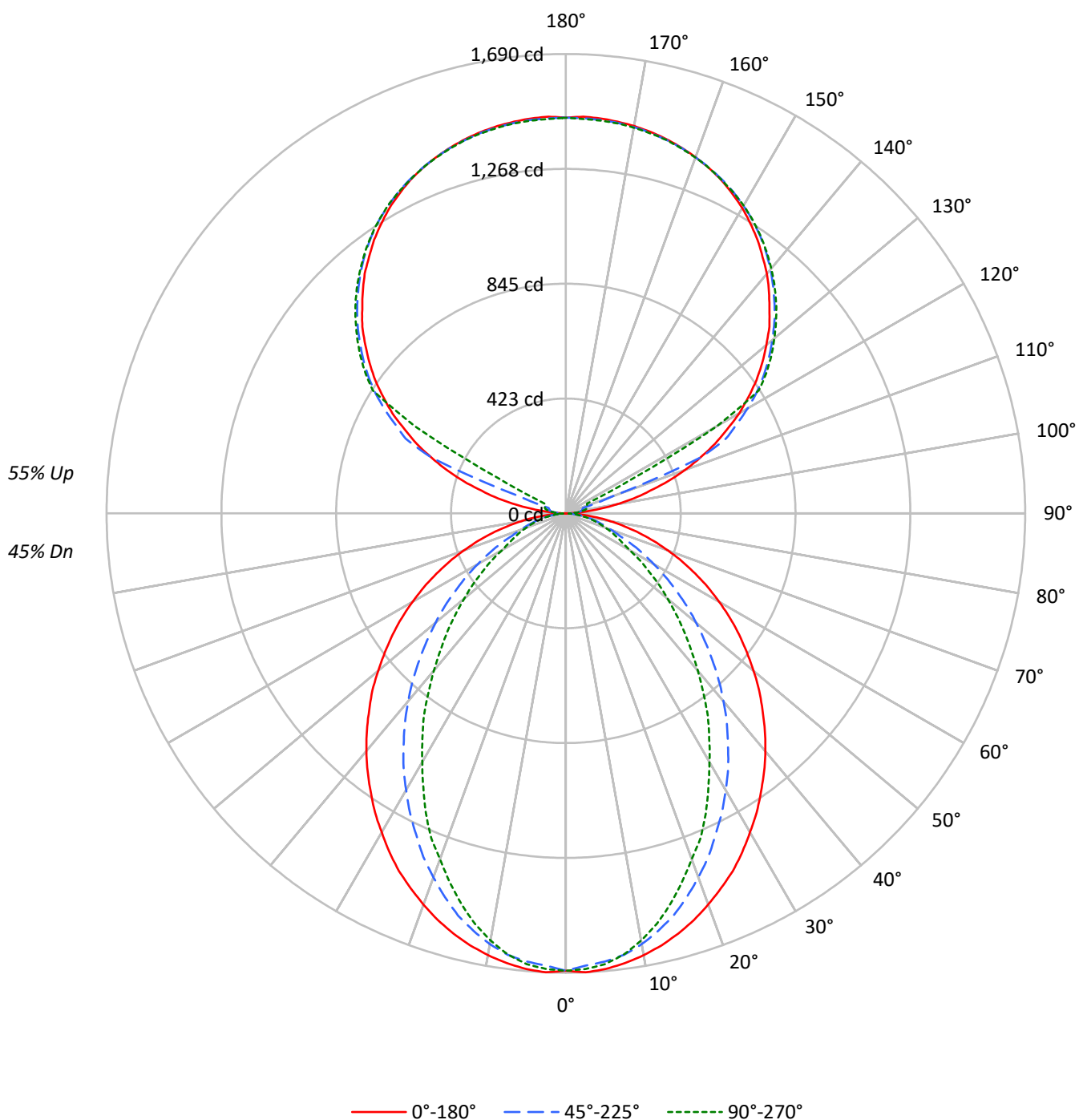
Lumens per Lamp: N/A  
Luminaire Lumens: 7730.0 lumens  
Efficiency: N/A  
Efficacy: 80.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 96.3  
Input Voltage (V): 120  
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

TEST NUMBER: P999280

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

### Luminous Intensity Polar Plot



TEST NUMBER: P999280

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

**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 | 51 | 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 | 31 | 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 | 23 | 20 | 24 | 20 | 18 | 20 | 17 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26631 | 26631 | 26631 |
| 5°  | 26675 | 25336 | 25148 |
| 10° | 26411 | 24030 | 23237 |
| 15° | 26047 | 22487 | 21058 |
| 20° | 25567 | 20734 | 18779 |
| 25° | 25077 | 18934 | 16694 |
| 30° | 24414 | 17182 | 14417 |
| 35° | 23768 | 15415 | 12462 |
| 40° | 23111 | 13678 | 10448 |
| 45° | 22344 | 11888 | 8691  |
| 50° | 21553 | 10159 | 7075  |
| 55° | 20731 | 8433  | 5617  |
| 60° | 19773 | 6744  | 4250  |
| 65° | 18674 | 5141  | 3455  |
| 70° | 17340 | 3730  | 2747  |
| 75° | 15669 | 2845  | 2098  |
| 80° | 13253 | 1926  | 1409  |
| 85° | 9252  | 881   | 680   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22344 cd/sqm

TEST NUMBER: P999280

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 157.7  | 2.0       |
| 10°-20°   | 432.8  | 5.6       |
| 20°-30°   | 607.7  | 7.9       |
| 30°-40°   | 662.4  | 8.6       |
| 40°-50°   | 608.8  | 7.9       |
| 50°-60°   | 478.1  | 6.2       |
| 60°-70°   | 311.2  | 4.0       |
| 70°-80°   | 160.2  | 2.1       |
| 80°-90°   | 43.5   | 0.6       |
| 90°-100°  | 48.0   | 0.6       |
| 100°-110° | 178.9  | 2.3       |
| 110°-120° | 474.6  | 6.1       |
| 120°-130° | 787.1  | 10.2      |
| 130°-140° | 836.1  | 10.8      |
| 140°-150° | 777.0  | 10.1      |
| 150°-160° | 624.7  | 8.1       |
| 160°-170° | 402.5  | 5.2       |
| 170°-180° | 138.5  | 1.8       |
| 0°-30°    | 1198.2 | 15.5      |
| 0°-40°    | 1860.7 | 24.1      |
| 0°-60°    | 2947.6 | 38.1      |
| 0°-90°    | 3462.6 | 44.8      |
| 90°-120°  | 701.5  | 9.1       |
| 90°-150°  | 3101.6 | 40.1      |
| 90°-180°  | 4267.0 | 55.2      |
| 0°-180°   | 7730.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1682 | 1682  | 1682 | 1682  | 1682 |      |
| 5°   | 1682 | 1675  | 1655 | 1669  | 1664 | 160  |
| 15°  | 1600 | 1583  | 1532 | 1503  | 1488 | 451  |
| 25°  | 1452 | 1404  | 1303 | 1241  | 1218 | 668  |
| 35°  | 1252 | 1174  | 1040 | 944   | 910  | 783  |
| 45°  | 1023 | 921   | 761  | 653   | 617  | 790  |
| 55°  | 778  | 659   | 495  | 404   | 374  | 695  |
| 65°  | 525  | 402   | 265  | 213   | 209  | 521  |
| 75°  | 280  | 174   | 122  | 111   | 110  | 296  |
| 85°  | 66   | 34    | 29   | 29    | 29   | 75   |
| 90°  | 1    | 13    | 21   | 26    | 28   | 7    |
| 95°  | 68   | 34    | 41   | 46    | 45   | 81   |
| 105° | 320  | 352   | 64   | 76    | 80   | 342  |
| 115° | 606  | 624   | 650  | 162   | 86   | 596  |
| 125° | 856  | 870   | 890  | 897   | 901  | 764  |
| 135° | 1060 | 1076  | 1086 | 1096  | 1094 | 819  |
| 145° | 1229 | 1228  | 1246 | 1253  | 1248 | 769  |
| 155° | 1354 | 1344  | 1357 | 1363  | 1354 | 624  |
| 165° | 1426 | 1420  | 1423 | 1430  | 1423 | 403  |
| 175° | 1459 | 1451  | 1454 | 1461  | 1450 | 139  |
| 180° | 1456 | 1456  | 1456 | 1456  | 1456 |      |

TEST NUMBER: P999280

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1682.4 | 1682.4 | 1682.4 | 1682.4 | 1682.4 |
| 2.5°   | 1690.0 | 1682.4 | 1665.6 | 1680.8 | 1677.8 |
| 5°     | 1682.4 | 1674.8 | 1655.0 | 1668.7 | 1664.1 |
| 7.5°   | 1668.7 | 1659.5 | 1638.2 | 1644.3 | 1636.7 |
| 10°    | 1650.4 | 1639.7 | 1609.3 | 1604.7 | 1595.6 |
| 12.5°  | 1627.6 | 1613.9 | 1572.7 | 1563.6 | 1546.9 |
| 15°    | 1600.1 | 1583.4 | 1531.6 | 1502.7 | 1487.5 |
| 17.5°  | 1568.2 | 1543.8 | 1479.9 | 1446.4 | 1422.0 |
| 20°    | 1531.6 | 1501.2 | 1425.1 | 1387.0 | 1353.5 |
| 22.5°  | 1492.1 | 1457.0 | 1368.7 | 1317.0 | 1294.1 |
| 25°    | 1452.5 | 1403.7 | 1303.3 | 1240.8 | 1218.0 |
| 27.5°  | 1405.3 | 1353.5 | 1242.4 | 1170.8 | 1135.8 |
| 30°    | 1355.0 | 1297.2 | 1175.4 | 1097.7 | 1056.6 |
| 32.5°  | 1306.3 | 1236.3 | 1111.4 | 1020.1 | 982.0  |
| 35°    | 1251.5 | 1173.8 | 1039.9 | 944.0  | 910.5  |
| 37.5°  | 1198.2 | 1114.5 | 972.9  | 867.8  | 829.8  |
| 40°    | 1141.9 | 1050.5 | 902.8  | 794.7  | 755.2  |
| 42.5°  | 1084.0 | 986.6  | 832.8  | 720.1  | 682.1  |
| 45°    | 1023.1 | 921.1  | 761.3  | 653.2  | 616.6  |
| 47.5°  | 965.3  | 857.2  | 692.7  | 584.6  | 551.1  |
| 50°    | 901.3  | 793.2  | 625.7  | 520.7  | 488.7  |
| 52.5°  | 838.9  | 724.7  | 561.8  | 461.3  | 432.4  |
| 55°    | 778.0  | 659.2  | 494.8  | 403.5  | 374.5  |
| 57.5°  | 715.6  | 593.8  | 435.4  | 350.2  | 325.8  |
| 60°    | 651.6  | 529.8  | 373.0  | 295.4  | 271.0  |
| 62.5°  | 589.2  | 467.4  | 319.7  | 246.6  | 234.5  |
| 65°    | 525.3  | 401.9  | 264.9  | 213.2  | 208.6  |
| 67.5°  | 464.4  | 341.0  | 213.2  | 187.3  | 182.7  |
| 70°    | 400.4  | 281.7  | 176.6  | 161.4  | 155.3  |
| 72.5°  | 339.5  | 226.9  | 147.7  | 135.5  | 132.5  |
| 75°    | 280.1  | 173.6  | 121.8  | 111.1  | 109.6  |
| 77.5°  | 220.8  | 123.3  | 95.9   | 89.8   | 86.8   |
| 80°    | 166.0  | 88.3   | 73.1   | 67.0   | 67.0   |
| 82.5°  | 115.7  | 59.4   | 50.2   | 47.2   | 47.2   |
| 85°    | 65.5   | 33.5   | 28.9   | 28.9   | 28.9   |
| 87.5°  | 24.4   | 12.2   | 12.2   | 10.7   | 10.7   |
| 90°    | 1.1    | 12.6   | 21.1   | 26.3   | 28.4   |
| 92.5°  | 26.3   | 22.1   | 25.3   | 27.4   | 28.4   |
| 95°    | 68.5   | 33.7   | 41.1   | 46.3   | 45.3   |
| 97.5°  | 123.2  | 36.9   | 53.7   | 56.9   | 57.9   |
| 100°   | 186.4  | 42.1   | 60.0   | 68.5   | 70.6   |
| 102.5° | 255.9  | 253.8  | 62.1   | 73.7   | 76.9   |
| 105°   | 320.2  | 351.8  | 64.3   | 75.8   | 80.0   |
| 107.5° | 395.0  | 421.3  | 66.4   | 77.9   | 82.2   |
| 110°   | 466.6  | 488.7  | 184.3  | 79.0   | 83.2   |

TEST NUMBER: P999280

CATALOG NUMBER: SA2XXRDIP-B1005D1080UB2750-4F0-XX-W2A-F\_2700K

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 534.0  | 553.0  | 535.1  | 81.1   | 84.3   |
| 115°   | 605.6  | 623.5  | 649.9  | 162.2  | 86.4   |
| 117.5° | 667.8  | 688.9  | 706.8  | 556.1  | 280.2  |
| 120°   | 737.3  | 753.1  | 772.1  | 784.7  | 642.5  |
| 122.5° | 796.3  | 813.1  | 834.2  | 840.5  | 841.6  |
| 125°   | 856.3  | 870.0  | 890.0  | 897.4  | 900.6  |
| 127.5° | 911.1  | 925.8  | 941.6  | 952.2  | 953.2  |
| 130°   | 962.7  | 979.6  | 991.1  | 1002.7 | 1001.7 |
| 132.5° | 1015.4 | 1029.1 | 1040.6 | 1050.1 | 1049.1 |
| 135°   | 1059.6 | 1076.5 | 1085.9 | 1096.5 | 1094.4 |
| 137.5° | 1106.0 | 1118.6 | 1129.1 | 1139.7 | 1136.5 |
| 140°   | 1151.2 | 1159.7 | 1171.3 | 1180.7 | 1175.5 |
| 142.5° | 1189.2 | 1196.5 | 1210.2 | 1218.7 | 1213.4 |
| 145°   | 1229.2 | 1228.1 | 1246.0 | 1253.4 | 1248.1 |
| 147.5° | 1263.9 | 1260.8 | 1278.7 | 1284.0 | 1279.7 |
| 150°   | 1297.7 | 1290.3 | 1307.1 | 1313.5 | 1308.2 |
| 152.5° | 1326.1 | 1317.7 | 1333.5 | 1339.8 | 1332.4 |
| 155°   | 1353.5 | 1344.0 | 1356.6 | 1363.0 | 1354.5 |
| 157.5° | 1375.6 | 1367.2 | 1376.6 | 1384.0 | 1375.6 |
| 160°   | 1394.6 | 1388.2 | 1394.6 | 1400.9 | 1393.5 |
| 162.5° | 1411.4 | 1405.1 | 1410.4 | 1417.7 | 1408.2 |
| 165°   | 1426.2 | 1419.8 | 1423.0 | 1430.4 | 1423.0 |
| 167.5° | 1437.7 | 1431.4 | 1434.6 | 1442.0 | 1432.5 |
| 170°   | 1447.2 | 1440.9 | 1443.0 | 1450.4 | 1440.9 |
| 172.5° | 1453.5 | 1447.2 | 1449.3 | 1456.7 | 1447.2 |
| 175°   | 1458.8 | 1451.4 | 1453.5 | 1460.9 | 1450.4 |
| 177.5° | 1460.9 | 1453.5 | 1454.6 | 1462.0 | 1452.5 |
| 180°   | 1455.6 | 1455.6 | 1455.6 | 1455.6 | 1455.6 |

(END OF REPORT)