

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: P1031987

Luminaire Tested: S123RDIW-B1000D1030UB27-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1031987  
REPORT IS A COMBINATION OF REPORTS P993723 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIW-B1000D1030UB27-4F0-XX-W2A-F1  
Description: Define 3 Regressed Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

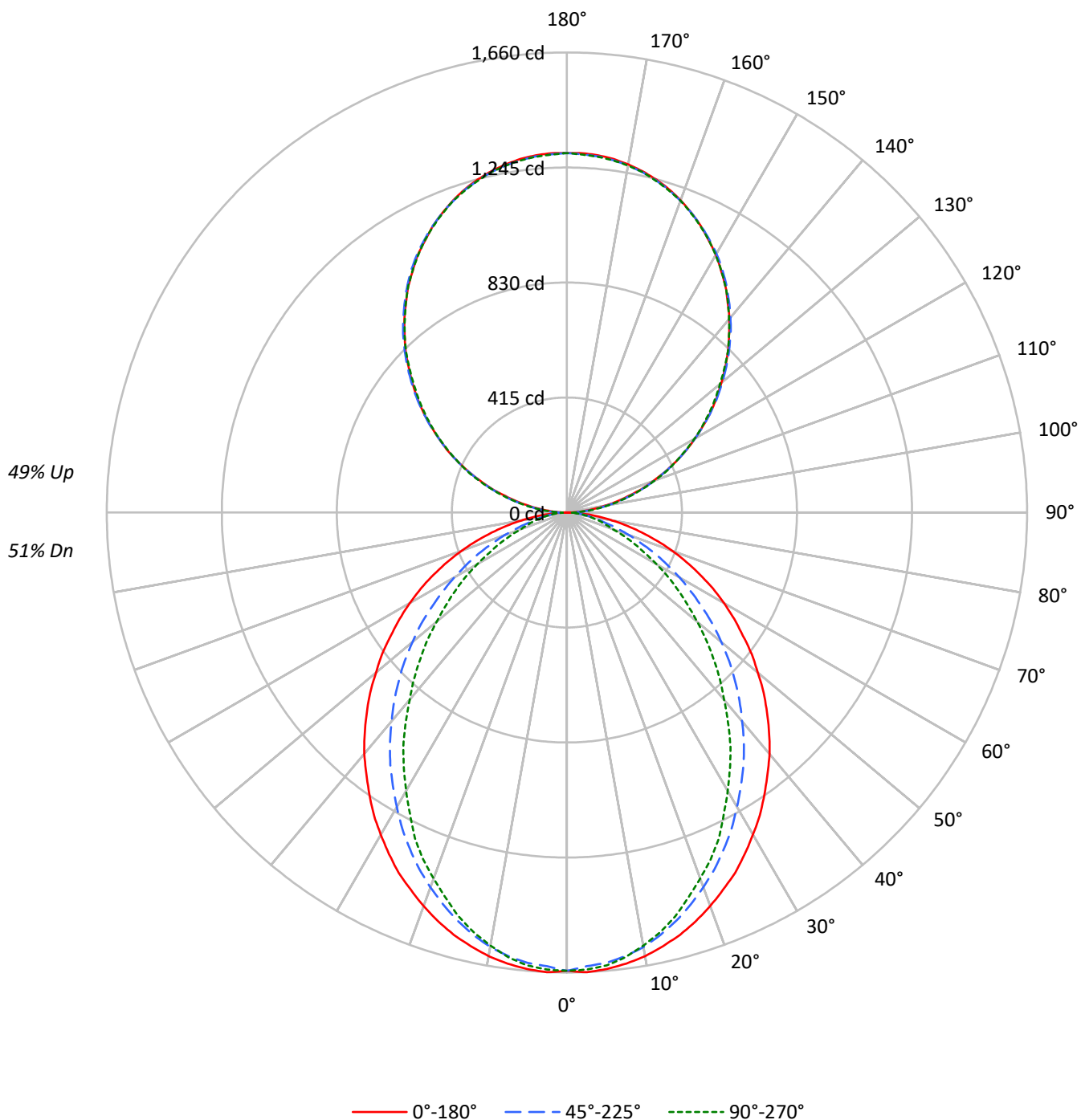
Lumens per Lamp: N/A  
Luminaire Lumens: 7332.0 lumens  
Efficiency: N/A  
Efficacy: 93.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 78.3  
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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 84 | 84 | 84 | 70 | 70 | 70 | 57 | 57 | 57 |
| 1   | 98  | 94  | 90  | 87  | 91 | 87 | 84 | 81 | 74 | 72 | 70 | 62 | 60 | 59 | 51 | 50 | 49 |
| 2   | 90  | 83  | 77  | 72  | 83 | 77 | 71 | 67 | 65 | 61 | 58 | 55 | 52 | 50 | 45 | 43 | 42 |
| 3   | 82  | 73  | 66  | 60  | 76 | 68 | 61 | 56 | 58 | 53 | 49 | 49 | 45 | 42 | 40 | 38 | 36 |
| 4   | 75  | 65  | 57  | 51  | 69 | 60 | 53 | 48 | 52 | 46 | 42 | 44 | 40 | 37 | 36 | 33 | 31 |
| 5   | 69  | 58  | 50  | 44  | 64 | 54 | 47 | 41 | 46 | 41 | 37 | 39 | 35 | 32 | 33 | 30 | 27 |
| 6   | 64  | 52  | 44  | 38  | 59 | 48 | 41 | 36 | 42 | 36 | 32 | 36 | 31 | 28 | 30 | 27 | 24 |
| 7   | 59  | 47  | 39  | 34  | 55 | 44 | 37 | 32 | 38 | 32 | 28 | 33 | 28 | 25 | 27 | 24 | 22 |
| 8   | 55  | 43  | 35  | 30  | 51 | 40 | 33 | 28 | 35 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 |
| 9   | 51  | 39  | 32  | 27  | 47 | 37 | 30 | 25 | 32 | 27 | 23 | 27 | 23 | 20 | 23 | 20 | 18 |
| 10  | 48  | 36  | 29  | 24  | 44 | 34 | 27 | 23 | 29 | 24 | 21 | 25 | 21 | 18 | 22 | 18 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17800 | 17800 | 17800 |
| 5°  | 17829 | 17170 | 17124 |
| 10° | 17689 | 16525 | 16199 |
| 15° | 17460 | 15727 | 15186 |
| 20° | 17158 | 14859 | 14055 |
| 25° | 16848 | 13958 | 12981 |
| 30° | 16449 | 12998 | 11714 |
| 35° | 16039 | 12056 | 10560 |
| 40° | 15652 | 11032 | 9284  |
| 45° | 15159 | 10031 | 8138  |
| 50° | 14612 | 8963  | 6950  |
| 55° | 14046 | 7819  | 5863  |
| 60° | 13505 | 6646  | 4759  |
| 65° | 12807 | 5442  | 3714  |
| 70° | 11927 | 4115  | 2654  |
| 75° | 10662 | 2788  | 2104  |
| 80° | 9099  | 1937  | 1475  |
| 85° | 6829  | 1047  | 774   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15159 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 155.5  | 2.1       |
| 10°-20°   | 432.5  | 5.9       |
| 20°-30°   | 622.7  | 8.5       |
| 30°-40°   | 701.2  | 9.6       |
| 40°-50°   | 670.7  | 9.1       |
| 50°-60°   | 549.1  | 7.5       |
| 60°-70°   | 370.2  | 5.0       |
| 70°-80°   | 185.7  | 2.5       |
| 80°-90°   | 51.3   | 0.7       |
| 90°-100°  | 83.5   | 1.1       |
| 100°-110° | 252.7  | 3.4       |
| 110°-120° | 430.1  | 5.9       |
| 120°-130° | 565.9  | 7.7       |
| 130°-140° | 636.1  | 8.7       |
| 140°-150° | 625.3  | 8.5       |
| 150°-160° | 526.5  | 7.2       |
| 160°-170° | 350.5  | 4.8       |
| 170°-180° | 122.7  | 1.7       |
| 0°-30°    | 1210.6 | 16.5      |
| 0°-40°    | 1911.8 | 26.1      |
| 0°-60°    | 3131.6 | 42.7      |
| 0°-90°    | 3738.7 | 51.0      |
| 90°-120°  | 766.3  | 10.5      |
| 90°-150°  | 2593.6 | 35.4      |
| 90°-180°  | 3593.0 | 49.0      |
| 0°-180°   | 7332.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1654 | 1654  | 1654 | 1654  | 1654 |      |
| 5°   | 1654 | 1647  | 1631 | 1643  | 1640 | 157  |
| 15°  | 1577 | 1562  | 1525 | 1518  | 1509 | 444  |
| 25°  | 1435 | 1402  | 1340 | 1312  | 1297 | 660  |
| 35°  | 1242 | 1194  | 1110 | 1053  | 1029 | 777  |
| 45°  | 1021 | 960   | 857  | 781   | 748  | 788  |
| 55°  | 775  | 710   | 596  | 518   | 491  | 695  |
| 65°  | 530  | 456   | 351  | 286   | 271  | 524  |
| 75°  | 280  | 216   | 142  | 129   | 126  | 299  |
| 85°  | 71   | 42    | 38   | 35    | 35   | 78   |
| 90°  | 1    | 11    | 24   | 28    | 31   | 9    |
| 95°  | 60   | 67    | 75   | 80    | 80   | 66   |
| 105° | 229  | 231   | 240  | 240   | 242  | 245  |
| 115° | 433  | 436   | 434  | 435   | 434  | 428  |
| 125° | 634  | 637   | 635  | 631   | 626  | 565  |
| 135° | 822  | 828   | 827  | 823   | 821  | 633  |
| 145° | 997  | 999   | 1002 | 1001  | 997  | 623  |
| 155° | 1142 | 1142  | 1143 | 1147  | 1140 | 526  |
| 165° | 1244 | 1241  | 1241 | 1247  | 1240 | 351  |
| 175° | 1294 | 1290  | 1290 | 1296  | 1289 | 123  |
| 180° | 1297 | 1297  | 1297 | 1297  | 1297 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1653.7 | 1653.7 | 1653.7 | 1653.7 | 1653.7 |
| 2.5°   | 1660.4 | 1655.0 | 1638.9 | 1653.7 | 1651.0 |
| 5°     | 1653.7 | 1647.0 | 1630.9 | 1643.0 | 1640.3 |
| 7.5°   | 1641.6 | 1634.9 | 1614.8 | 1622.9 | 1618.8 |
| 10°    | 1625.5 | 1616.1 | 1592.0 | 1593.3 | 1586.6 |
| 12.5°  | 1602.7 | 1592.0 | 1561.2 | 1559.8 | 1551.8 |
| 15°    | 1577.3 | 1562.5 | 1524.9 | 1518.2 | 1508.8 |
| 17.5°  | 1546.4 | 1530.3 | 1483.4 | 1470.0 | 1456.5 |
| 20°    | 1511.5 | 1490.1 | 1439.1 | 1421.7 | 1405.6 |
| 22.5°  | 1472.6 | 1447.2 | 1392.2 | 1369.4 | 1354.6 |
| 25°    | 1435.1 | 1401.6 | 1339.9 | 1311.7 | 1296.9 |
| 27.5°  | 1389.5 | 1353.3 | 1286.2 | 1248.7 | 1225.9 |
| 30°    | 1342.5 | 1302.3 | 1227.2 | 1181.6 | 1160.1 |
| 32.5°  | 1295.6 | 1248.7 | 1168.2 | 1117.2 | 1094.4 |
| 35°    | 1242.0 | 1193.7 | 1110.5 | 1052.8 | 1028.7 |
| 37.5°  | 1188.3 | 1136.0 | 1048.8 | 984.4  | 954.9  |
| 40°    | 1137.3 | 1078.3 | 983.1  | 913.4  | 882.5  |
| 42.5°  | 1079.7 | 1020.7 | 921.4  | 843.6  | 816.8  |
| 45°    | 1020.7 | 960.3  | 857.0  | 780.6  | 748.4  |
| 47.5°  | 963.0  | 895.9  | 794.0  | 710.8  | 682.7  |
| 50°    | 898.6  | 835.6  | 726.9  | 643.8  | 612.9  |
| 52.5°  | 840.9  | 771.2  | 663.9  | 576.7  | 549.9  |
| 55°    | 775.2  | 709.5  | 595.5  | 517.7  | 490.9  |
| 57.5°  | 716.2  | 645.1  | 529.8  | 456.0  | 433.2  |
| 60°    | 654.5  | 580.7  | 469.4  | 397.0  | 374.2  |
| 62.5°  | 592.8  | 519.0  | 407.7  | 340.7  | 316.5  |
| 65°    | 529.8  | 456.0  | 351.4  | 285.7  | 270.9  |
| 67.5°  | 466.7  | 391.6  | 289.7  | 240.1  | 224.0  |
| 70°    | 405.0  | 332.6  | 238.7  | 191.8  | 177.0  |
| 72.5°  | 343.3  | 272.3  | 189.1  | 152.9  | 148.9  |
| 75°    | 280.3  | 215.9  | 142.2  | 128.8  | 126.1  |
| 77.5°  | 222.6  | 163.6  | 111.3  | 103.3  | 100.6  |
| 80°    | 167.6  | 112.7  | 84.5   | 80.5   | 77.8   |
| 82.5°  | 115.3  | 69.7   | 60.4   | 56.3   | 56.3   |
| 85°    | 71.1   | 41.6   | 37.6   | 34.9   | 34.9   |
| 87.5°  | 32.2   | 17.4   | 17.4   | 16.1   | 14.8   |
| 90°    | 1.0    | 11.2   | 24.4   | 28.5   | 30.6   |
| 92.5°  | 30.6   | 36.7   | 42.8   | 45.8   | 43.8   |
| 95°    | 60.1   | 67.2   | 75.4   | 79.5   | 79.5   |
| 97.5°  | 98.8   | 103.9  | 110.0  | 115.1  | 114.1  |
| 100°   | 138.5  | 144.7  | 149.8  | 152.8  | 154.8  |
| 102.5° | 184.4  | 187.4  | 194.6  | 197.6  | 196.6  |
| 105°   | 229.2  | 231.2  | 240.4  | 240.4  | 242.5  |
| 107.5° | 282.2  | 283.2  | 287.3  | 290.3  | 289.3  |
| 110°   | 331.1  | 333.1  | 335.2  | 339.2  | 337.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 382.0  | 383.0  | 383.0  | 388.1  | 388.1  |
| 115°   | 433.0  | 436.0  | 434.0  | 435.0  | 434.0  |
| 117.5° | 484.9  | 485.9  | 483.9  | 483.9  | 480.8  |
| 120°   | 532.8  | 538.9  | 533.8  | 532.8  | 530.7  |
| 122.5° | 582.7  | 586.8  | 584.7  | 581.7  | 578.6  |
| 125°   | 633.6  | 636.7  | 634.7  | 630.6  | 626.5  |
| 127.5° | 680.5  | 686.6  | 684.6  | 678.5  | 674.4  |
| 130°   | 727.4  | 735.5  | 732.5  | 728.4  | 721.2  |
| 132.5° | 774.2  | 782.4  | 780.3  | 775.2  | 770.1  |
| 135°   | 822.1  | 828.2  | 827.2  | 823.1  | 821.1  |
| 137.5° | 865.9  | 871.0  | 874.1  | 869.0  | 865.9  |
| 140°   | 911.7  | 916.8  | 917.9  | 916.8  | 909.7  |
| 142.5° | 953.5  | 958.6  | 960.6  | 959.6  | 954.5  |
| 145°   | 997.3  | 999.4  | 1002.4 | 1001.4 | 997.3  |
| 147.5° | 1035.0 | 1039.1 | 1042.1 | 1042.1 | 1036.0 |
| 150°   | 1074.7 | 1076.8 | 1078.8 | 1078.8 | 1072.7 |
| 152.5° | 1107.3 | 1110.4 | 1111.4 | 1113.5 | 1108.4 |
| 155°   | 1142.0 | 1142.0 | 1143.0 | 1147.1 | 1139.9 |
| 157.5° | 1171.5 | 1170.5 | 1171.5 | 1175.6 | 1169.5 |
| 160°   | 1199.0 | 1197.0 | 1197.0 | 1202.1 | 1198.0 |
| 162.5° | 1223.5 | 1220.4 | 1221.4 | 1226.5 | 1219.4 |
| 165°   | 1243.8 | 1240.8 | 1240.8 | 1246.9 | 1239.8 |
| 167.5° | 1261.2 | 1257.1 | 1258.1 | 1264.2 | 1258.1 |
| 170°   | 1275.4 | 1271.4 | 1271.4 | 1278.5 | 1271.4 |
| 172.5° | 1286.6 | 1282.6 | 1282.6 | 1288.7 | 1281.5 |
| 175°   | 1293.8 | 1289.7 | 1289.7 | 1295.8 | 1288.7 |
| 177.5° | 1297.8 | 1293.8 | 1293.8 | 1299.9 | 1292.7 |
| 180°   | 1296.8 | 1296.8 | 1296.8 | 1296.8 | 1296.8 |

(END OF REPORT)