

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: P1029321

Luminaire Tested: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029321  
REPORT IS A COMBINATION OF REPORTS P985507 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K  
Description: Define 2 Direct/Indirect Wall Mount with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

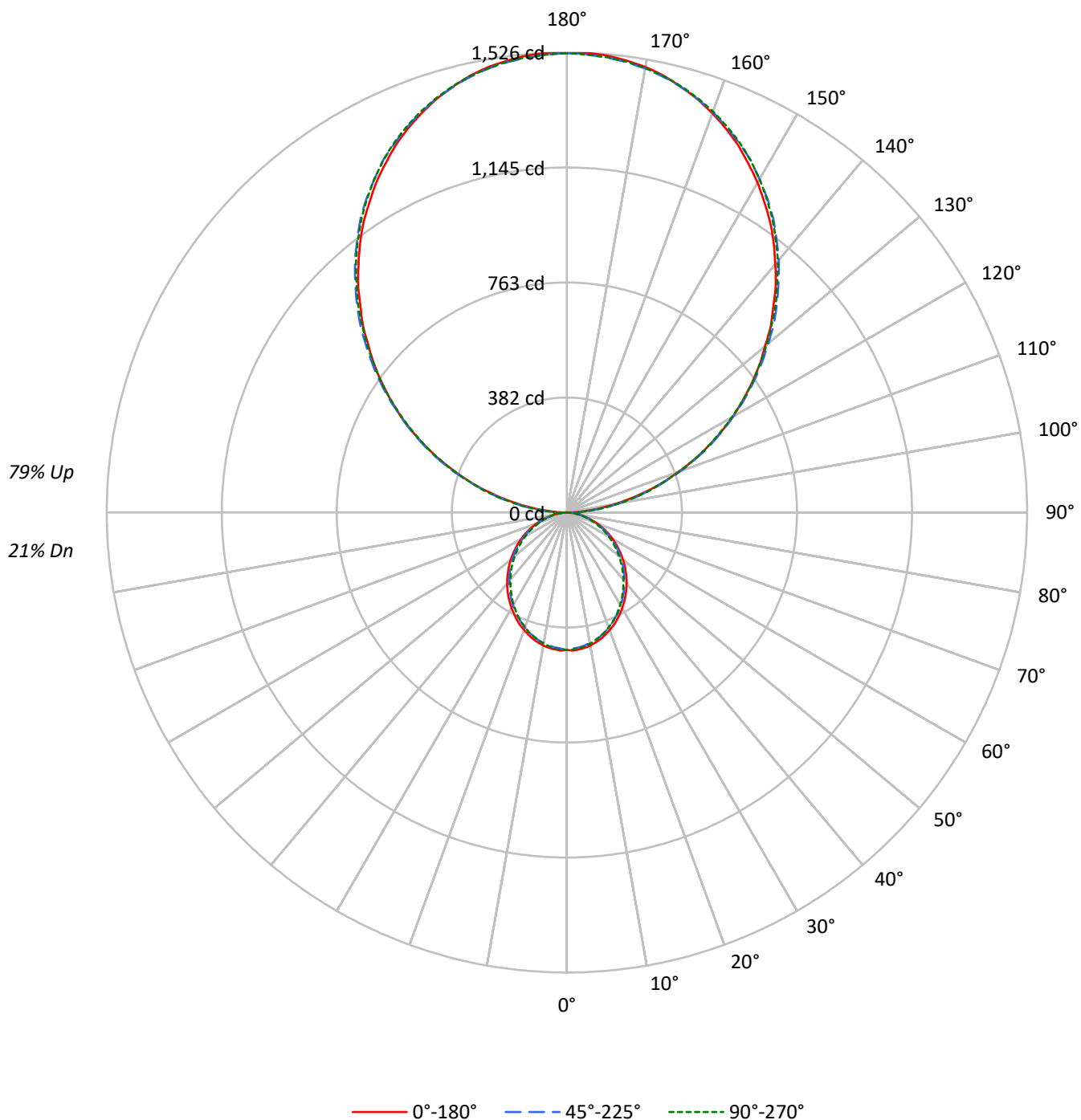
Lumens per Lamp: N/A  
Luminaire Lumens: 5425.0 lumens  
Efficiency: N/A  
Efficacy: 98.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 55.1  
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

TEST NUMBER: P1029321

CATALOG NUMBER: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K

### Luminous Intensity Polar Plot



TEST NUMBER: P1029321

CATALOG NUMBER: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 100 | 100 | 100 | 100 | 89 | 89 | 89 | 89 | 67 | 67 | 67 | 48 | 48 | 48 | 30 | 30 | 30 | 21 |    |    |
| 1   | 91  | 87  | 84  | 80  | 81 | 77 | 74 | 72 | 59 | 57 | 55 | 42 | 41 | 40 | 26 | 26 | 25 | 18 |    |    |
| 2   | 83  | 76  | 70  | 65  | 73 | 68 | 63 | 59 | 52 | 48 | 46 | 37 | 35 | 33 | 23 | 22 | 21 | 15 |    |    |
| 3   | 76  | 67  | 60  | 54  | 67 | 59 | 54 | 49 | 45 | 41 | 38 | 33 | 30 | 28 | 21 | 19 | 18 | 13 |    |    |
| 4   | 69  | 59  | 51  | 46  | 61 | 52 | 46 | 41 | 40 | 36 | 32 | 29 | 26 | 24 | 18 | 17 | 15 | 11 |    |    |
| 5   | 63  | 52  | 45  | 39  | 56 | 47 | 40 | 35 | 36 | 31 | 28 | 26 | 23 | 21 | 16 | 15 | 13 | 10 |    |    |
| 6   | 58  | 47  | 39  | 34  | 51 | 42 | 35 | 30 | 32 | 28 | 24 | 23 | 20 | 18 | 15 | 13 | 12 | 8  |    |    |
| 7   | 54  | 42  | 34  | 29  | 47 | 38 | 31 | 26 | 29 | 24 | 21 | 21 | 18 | 16 | 14 | 12 | 10 | 7  |    |    |
| 8   | 50  | 38  | 31  | 26  | 44 | 34 | 28 | 23 | 26 | 22 | 18 | 19 | 16 | 14 | 12 | 11 | 9  | 7  |    |    |
| 9   | 46  | 34  | 27  | 23  | 41 | 31 | 25 | 20 | 24 | 20 | 16 | 18 | 15 | 12 | 11 | 10 | 8  | 6  |    |    |
| 10  | 43  | 31  | 25  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 15 | 16 | 13 | 11 | 11 | 9  | 8  | 5  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7217 | 7217 | 7217 |
| 5°  | 7228 | 6880 | 6831 |
| 10° | 7171 | 6566 | 6435 |
| 15° | 7065 | 6250 | 6021 |
| 20° | 6923 | 5907 | 5626 |
| 25° | 6781 | 5548 | 5234 |
| 30° | 6604 | 5210 | 4822 |
| 35° | 6436 | 4855 | 4417 |
| 40° | 6230 | 4503 | 4033 |
| 45° | 6023 | 4155 | 3658 |
| 50° | 5797 | 3801 | 3269 |
| 55° | 5561 | 3422 | 2899 |
| 60° | 5295 | 3012 | 2517 |
| 65° | 5002 | 2595 | 2113 |
| 70° | 4634 | 2139 | 1707 |
| 75° | 4123 | 1649 | 1317 |
| 80° | 3497 | 1120 | 847  |
| 85° | 2543 | 521  | 360  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6023 cd/sqm

TEST NUMBER: P1029321

CATALOG NUMBER: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 42.9   | 0.8       |
| 10°-20°   | 120.7  | 2.2       |
| 20°-30°   | 177.4  | 3.3       |
| 30°-40°   | 206.1  | 3.8       |
| 40°-50°   | 205.8  | 3.8       |
| 50°-60°   | 179.5  | 3.3       |
| 60°-70°   | 132.7  | 2.4       |
| 70°-80°   | 75.1   | 1.4       |
| 80°-90°   | 24.1   | 0.4       |
| 90°-100°  | 94.3   | 1.7       |
| 100°-110° | 299.7  | 5.5       |
| 110°-120° | 512.8  | 9.5       |
| 120°-130° | 674.4  | 12.4      |
| 130°-140° | 757.0  | 14.0      |
| 140°-150° | 742.4  | 13.7      |
| 150°-160° | 622.7  | 11.5      |
| 160°-170° | 413.0  | 7.6       |
| 170°-180° | 144.3  | 2.7       |
| 0°-30°    | 341.1  | 6.3       |
| 0°-40°    | 547.2  | 10.1      |
| 0°-60°    | 932.5  | 17.2      |
| 0°-90°    | 1164.3 | 21.5      |
| 90°-120°  | 906.8  | 16.7      |
| 90°-150°  | 3080.6 | 56.8      |
| 90°-180°  | 4261.0 | 78.5      |
| 0°-180°   | 5425.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 456  | 456   | 456  | 456   | 456  |      |
| 5°   | 456  | 454   | 449  | 453   | 452  | 43   |
| 15°  | 434  | 431   | 426  | 427   | 425  | 122  |
| 25°  | 393  | 389   | 382  | 383   | 382  | 181  |
| 35°  | 339  | 334   | 328  | 325   | 323  | 212  |
| 45°  | 276  | 273   | 266  | 261   | 260  | 213  |
| 55°  | 209  | 206   | 201  | 196   | 193  | 187  |
| 65°  | 141  | 138   | 134  | 130   | 128  | 139  |
| 75°  | 74   | 73    | 71   | 68    | 69   | 79   |
| 85°  | 18   | 18    | 17   | 16    | 15   | 20   |
| 90°  | 1    | 17    | 45   | 42    | 44   | 5    |
| 95°  | 67   | 80    | 82   | 82    | 80   | 75   |
| 105° | 276  | 280   | 283  | 286   | 286  | 292  |
| 115° | 514  | 522   | 520  | 518   | 514  | 509  |
| 125° | 748  | 760   | 756  | 752   | 751  | 669  |
| 135° | 968  | 982   | 985  | 984   | 980  | 748  |
| 145° | 1175 | 1184  | 1192 | 1193  | 1188 | 734  |
| 155° | 1344 | 1348  | 1352 | 1358  | 1354 | 619  |
| 165° | 1462 | 1461  | 1461 | 1470  | 1464 | 412  |
| 175° | 1521 | 1518  | 1515 | 1524  | 1516 | 145  |
| 180° | 1524 | 1524  | 1524 | 1524  | 1524 |      |

TEST NUMBER: P1029321

CATALOG NUMBER: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 455.9 | 455.9 | 455.9 | 455.9 | 455.9 |
| 2.5°   | 458.6 | 456.4 | 451.6 | 455.9 | 455.1 |
| 5°     | 455.9 | 454.2 | 449.4 | 452.9 | 452.0 |
| 7.5°   | 452.9 | 450.2 | 445.4 | 448.9 | 448.1 |
| 10°    | 448.1 | 445.0 | 439.7 | 443.2 | 441.9 |
| 12.5°  | 441.5 | 438.8 | 433.6 | 435.8 | 434.9 |
| 15°    | 434.0 | 431.4 | 425.7 | 427.4 | 425.3 |
| 17.5°  | 424.8 | 422.2 | 416.5 | 418.7 | 416.5 |
| 20°    | 414.7 | 412.1 | 406.0 | 407.3 | 405.5 |
| 22.5°  | 404.7 | 400.7 | 395.0 | 395.0 | 394.1 |
| 25°    | 392.8 | 389.3 | 381.9 | 382.7 | 381.9 |
| 27.5°  | 379.7 | 376.6 | 370.9 | 369.6 | 367.4 |
| 30°    | 366.5 | 363.0 | 356.4 | 355.1 | 353.4 |
| 32.5°  | 352.5 | 349.9 | 342.8 | 340.2 | 338.5 |
| 35°    | 338.9 | 334.5 | 327.5 | 324.9 | 322.7 |
| 37.5°  | 323.5 | 319.6 | 312.6 | 309.5 | 307.3 |
| 40°    | 307.8 | 304.3 | 297.2 | 293.3 | 291.5 |
| 42.5°  | 292.4 | 288.9 | 281.9 | 277.5 | 274.9 |
| 45°    | 275.8 | 272.7 | 266.1 | 261.3 | 259.5 |
| 47.5°  | 259.5 | 256.5 | 249.5 | 244.6 | 242.0 |
| 50°    | 242.4 | 240.2 | 234.1 | 228.0 | 225.8 |
| 52.5°  | 225.8 | 222.7 | 217.0 | 212.2 | 209.1 |
| 55°    | 208.7 | 206.1 | 200.8 | 195.5 | 193.3 |
| 57.5°  | 191.6 | 189.4 | 183.7 | 178.4 | 176.7 |
| 60°    | 174.5 | 172.7 | 166.6 | 161.8 | 160.5 |
| 62.5°  | 157.8 | 154.8 | 150.4 | 146.0 | 144.2 |
| 65°    | 140.7 | 138.1 | 133.7 | 129.8 | 127.6 |
| 67.5°  | 123.2 | 121.0 | 117.1 | 114.0 | 112.2 |
| 70°    | 107.0 | 105.2 | 101.3 | 98.2  | 96.5  |
| 72.5°  | 90.3  | 88.6  | 86.4  | 83.3  | 82.0  |
| 75°    | 73.7  | 72.8  | 70.6  | 68.0  | 68.8  |
| 77.5°  | 58.7  | 57.0  | 56.1  | 54.8  | 53.5  |
| 80°    | 43.8  | 43.4  | 42.5  | 41.2  | 40.3  |
| 82.5°  | 29.8  | 29.8  | 29.4  | 27.6  | 27.6  |
| 85°    | 18.0  | 17.5  | 17.1  | 15.8  | 15.3  |
| 87.5°  | 7.9   | 7.0   | 6.1   | 4.8   | 4.4   |
| 90°    | 1.3   | 16.7  | 45.0  | 42.4  | 43.7  |
| 92.5°  | 28.3  | 38.6  | 39.9  | 41.2  | 41.2  |
| 95°    | 66.9  | 79.7  | 82.3  | 82.3  | 79.7  |
| 97.5°  | 111.9 | 123.5 | 128.6 | 128.6 | 128.6 |
| 100°   | 163.3 | 173.6 | 177.5 | 177.5 | 176.2 |
| 102.5° | 217.3 | 225.1 | 230.2 | 231.5 | 230.2 |
| 105°   | 276.5 | 280.4 | 282.9 | 285.5 | 285.5 |
| 107.5° | 335.7 | 340.8 | 340.8 | 342.1 | 335.7 |
| 110°   | 392.2 | 400.0 | 400.0 | 400.0 | 396.1 |

TEST NUMBER: P1029321

CATALOG NUMBER: S122DIW-B290D1240UB2750-4F0-XX-W2A-F1\_2700K

**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 454.0  | 461.7  | 460.4  | 456.5  | 454.0  |
| 115°   | 514.4  | 522.1  | 519.6  | 518.3  | 514.4  |
| 117.5° | 574.9  | 585.1  | 578.7  | 574.9  | 571.0  |
| 120°   | 635.3  | 645.6  | 635.3  | 635.3  | 631.4  |
| 122.5° | 690.6  | 703.5  | 697.0  | 693.2  | 690.6  |
| 125°   | 748.5  | 760.0  | 756.2  | 752.3  | 751.0  |
| 127.5° | 805.1  | 819.2  | 814.1  | 808.9  | 805.1  |
| 130°   | 857.8  | 874.5  | 871.9  | 869.4  | 864.2  |
| 132.5° | 916.9  | 929.8  | 931.1  | 924.7  | 920.8  |
| 135°   | 968.4  | 982.5  | 985.1  | 983.8  | 980.0  |
| 137.5° | 1025.0 | 1036.5 | 1039.1 | 1037.8 | 1032.7 |
| 140°   | 1075.1 | 1086.7 | 1093.1 | 1093.1 | 1088.0 |
| 142.5° | 1126.6 | 1138.1 | 1142.0 | 1143.3 | 1138.1 |
| 145°   | 1175.4 | 1184.4 | 1192.1 | 1193.4 | 1188.3 |
| 147.5° | 1219.2 | 1230.7 | 1235.9 | 1238.4 | 1233.3 |
| 150°   | 1264.2 | 1271.9 | 1277.0 | 1280.9 | 1277.0 |
| 152.5° | 1304.0 | 1311.8 | 1318.2 | 1323.3 | 1318.2 |
| 155°   | 1343.9 | 1347.8 | 1351.6 | 1358.0 | 1354.2 |
| 157.5° | 1378.6 | 1381.2 | 1383.8 | 1392.8 | 1386.3 |
| 160°   | 1409.5 | 1412.1 | 1413.3 | 1421.1 | 1415.9 |
| 162.5° | 1437.8 | 1437.8 | 1439.1 | 1448.1 | 1441.6 |
| 165°   | 1462.2 | 1460.9 | 1460.9 | 1469.9 | 1463.5 |
| 167.5° | 1484.1 | 1480.2 | 1480.2 | 1489.2 | 1482.8 |
| 170°   | 1500.8 | 1496.9 | 1495.7 | 1504.7 | 1496.9 |
| 172.5° | 1512.4 | 1508.5 | 1507.2 | 1516.2 | 1508.5 |
| 175°   | 1521.4 | 1517.5 | 1514.9 | 1523.9 | 1516.2 |
| 177.5° | 1526.5 | 1522.7 | 1520.1 | 1527.8 | 1520.1 |
| 180°   | 1523.9 | 1523.9 | 1523.9 | 1523.9 | 1523.9 |

(END OF REPORT)