

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: P1029584

Luminaire Tested: S122DIW-B485D970UB2750-4F0-XX-W2A-D\_4000K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1029584  
REPORT IS A COMBINATION OF REPORTS P986315 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122DIW-B485D970UB2750-4F0-XX-W2A-D\_4000K  
Description: Define 2 Direct/Indirect Wall Mount with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

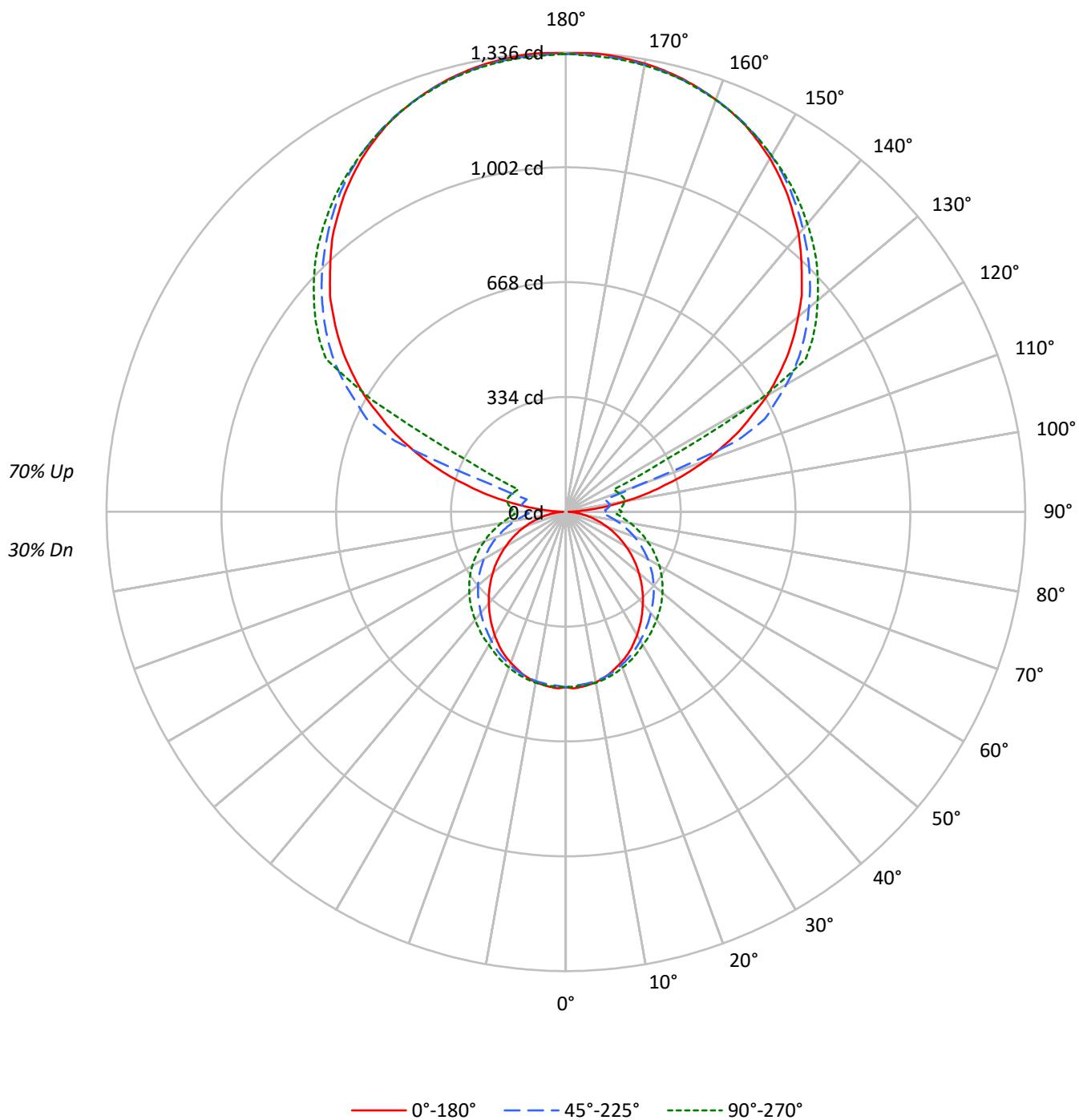
Lumens per Lamp: N/A  
Luminaire Lumens: 5853.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 55.5  
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   | 102 | 102 | 102 | 102 | 92 | 92 | 92 | 92 | 72 | 72 | 72 | 54 | 54 | 54 | 37 | 37 | 37 |
| 1   | 92  | 88  | 84  | 80  | 82 | 79 | 75 | 72 | 62 | 59 | 57 | 46 | 44 | 43 | 32 | 31 | 30 |
| 2   | 84  | 76  | 70  | 64  | 75 | 68 | 63 | 58 | 53 | 50 | 46 | 40 | 37 | 35 | 27 | 26 | 24 |
| 3   | 76  | 67  | 59  | 53  | 68 | 60 | 53 | 48 | 47 | 42 | 39 | 35 | 32 | 29 | 24 | 22 | 20 |
| 4   | 69  | 59  | 51  | 45  | 62 | 53 | 46 | 41 | 41 | 36 | 33 | 31 | 28 | 25 | 21 | 19 | 17 |
| 5   | 63  | 52  | 44  | 38  | 56 | 47 | 40 | 34 | 37 | 32 | 28 | 28 | 24 | 21 | 19 | 17 | 15 |
| 6   | 58  | 46  | 38  | 33  | 52 | 42 | 35 | 30 | 33 | 28 | 24 | 25 | 21 | 18 | 17 | 15 | 13 |
| 7   | 54  | 42  | 34  | 28  | 48 | 38 | 31 | 26 | 30 | 25 | 21 | 22 | 19 | 16 | 16 | 13 | 11 |
| 8   | 50  | 38  | 30  | 25  | 44 | 34 | 27 | 23 | 27 | 22 | 18 | 20 | 17 | 14 | 14 | 12 | 10 |
| 9   | 46  | 34  | 27  | 22  | 41 | 31 | 24 | 20 | 25 | 20 | 16 | 19 | 15 | 13 | 13 | 11 | 9  |
| 10  | 43  | 31  | 24  | 19  | 38 | 28 | 22 | 18 | 23 | 18 | 15 | 17 | 14 | 11 | 12 | 10 | 8  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8078 | 8078 | 8078 |
| 5°  | 8113 | 7733 | 7689 |
| 10° | 8059 | 7464 | 7356 |
| 15° | 7946 | 7188 | 7014 |
| 20° | 7802 | 6896 | 6690 |
| 25° | 7660 | 6618 | 6395 |
| 30° | 7461 | 6336 | 6104 |
| 35° | 7260 | 6063 | 5891 |
| 40° | 7049 | 5826 | 5678 |
| 45° | 6849 | 5612 | 5493 |
| 50° | 6631 | 5415 | 5310 |
| 55° | 6403 | 5205 | 5125 |
| 60° | 6127 | 4986 | 4929 |
| 65° | 5837 | 4736 | 4704 |
| 70° | 5509 | 4467 | 4462 |
| 75° | 5091 | 4198 | 4232 |
| 80° | 4431 | 3916 | 3996 |
| 85° | 3757 | 3653 | 3791 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6849 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 48.4   | 0.8       |
| 10°-20°   | 138.7  | 2.4       |
| 20°-30°   | 210.2  | 3.6       |
| 30°-40°   | 256.0  | 4.4       |
| 40°-50°   | 275.4  | 4.7       |
| 50°-60°   | 267.5  | 4.6       |
| 60°-70°   | 233.6  | 4.0       |
| 70°-80°   | 179.8  | 3.1       |
| 80°-90°   | 122.8  | 2.1       |
| 90°-100°  | 127.0  | 2.2       |
| 100°-110° | 224.3  | 3.8       |
| 110°-120° | 474.2  | 8.1       |
| 120°-130° | 742.3  | 12.7      |
| 130°-140° | 774.1  | 13.2      |
| 140°-150° | 712.4  | 12.2      |
| 150°-160° | 571.4  | 9.8       |
| 160°-170° | 368.2  | 6.3       |
| 170°-180° | 126.7  | 2.2       |
| 0°-30°    | 397.3  | 6.8       |
| 0°-40°    | 653.3  | 11.2      |
| 0°-60°    | 1196.2 | 20.4      |
| 0°-90°    | 1732.3 | 29.6      |
| 90°-120°  | 825.5  | 14.1      |
| 90°-150°  | 3054.3 | 52.2      |
| 90°-180°  | 4121.0 | 70.4      |
| 0°-180°   | 5853.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 510  | 510   | 510  | 510   | 510  |      |
| 5°   | 512  | 510   | 505  | 510   | 509  | 49   |
| 15°  | 488  | 490   | 490  | 496   | 496  | 137  |
| 25°  | 444  | 449   | 456  | 464   | 467  | 204  |
| 35°  | 382  | 395   | 409  | 425   | 430  | 239  |
| 45°  | 314  | 334   | 359  | 382   | 390  | 242  |
| 55°  | 240  | 267   | 305  | 332   | 342  | 215  |
| 65°  | 164  | 200   | 244  | 274   | 284  | 163  |
| 75°  | 91   | 132   | 180  | 212   | 221  | 96   |
| 85°  | 27   | 72    | 120  | 151   | 161  | 28   |
| 90°  | 8    | 62    | 117  | 151   | 162  | 9    |
| 95°  | 68   | 72    | 123  | 156   | 163  | 79   |
| 105° | 297  | 347   | 122  | 159   | 171  | 317  |
| 115° | 557  | 582   | 639  | 215   | 154  | 548  |
| 125° | 785  | 797   | 839  | 866   | 876  | 700  |
| 135° | 970  | 985   | 1002 | 1027  | 1031 | 750  |
| 145° | 1124 | 1123  | 1140 | 1151  | 1150 | 703  |
| 155° | 1238 | 1229  | 1241 | 1247  | 1239 | 571  |
| 165° | 1305 | 1299  | 1302 | 1308  | 1302 | 369  |
| 175° | 1334 | 1328  | 1330 | 1336  | 1327 | 127  |
| 180° | 1332 | 1332  | 1332 | 1332  | 1332 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 510.3 | 510.3 | 510.3 | 510.3 | 510.3 |
| 2.5°   | 514.0 | 511.7 | 506.6 | 510.3 | 508.8 |
| 5°     | 511.7 | 509.5 | 505.1 | 509.5 | 508.8 |
| 7.5°   | 508.0 | 506.6 | 502.9 | 508.0 | 507.3 |
| 10°    | 503.6 | 502.1 | 499.9 | 505.8 | 505.1 |
| 12.5°  | 496.2 | 497.0 | 495.5 | 501.4 | 500.7 |
| 15°    | 488.1 | 489.6 | 489.6 | 496.2 | 495.5 |
| 17.5°  | 477.7 | 480.7 | 482.9 | 489.6 | 489.6 |
| 20°    | 467.4 | 471.1 | 474.0 | 482.2 | 482.2 |
| 22.5°  | 456.3 | 460.7 | 465.2 | 473.3 | 474.8 |
| 25°    | 443.7 | 448.9 | 455.5 | 464.4 | 466.6 |
| 27.5°  | 428.9 | 437.1 | 444.4 | 455.5 | 457.0 |
| 30°    | 414.1 | 423.7 | 433.4 | 445.2 | 447.4 |
| 32.5°  | 397.9 | 409.0 | 420.8 | 434.8 | 439.3 |
| 35°    | 382.3 | 394.9 | 409.0 | 425.2 | 430.4 |
| 37.5°  | 365.3 | 379.4 | 397.1 | 414.9 | 420.0 |
| 40°    | 348.3 | 364.6 | 384.5 | 403.8 | 410.4 |
| 42.5°  | 332.0 | 348.3 | 372.0 | 393.4 | 400.1 |
| 45°    | 313.6 | 333.5 | 359.4 | 382.3 | 389.7 |
| 47.5°  | 295.8 | 317.3 | 346.8 | 370.5 | 378.6 |
| 50°    | 277.3 | 300.2 | 333.5 | 358.7 | 366.8 |
| 52.5°  | 259.6 | 284.0 | 319.5 | 345.4 | 354.2 |
| 55°    | 240.3 | 267.0 | 305.4 | 332.0 | 341.7 |
| 57.5°  | 221.9 | 251.4 | 289.9 | 318.7 | 328.3 |
| 60°    | 201.9 | 233.7 | 275.8 | 303.9 | 314.3 |
| 62.5°  | 184.1 | 217.4 | 259.6 | 289.9 | 299.5 |
| 65°    | 164.2 | 200.4 | 244.0 | 274.4 | 284.0 |
| 67.5°  | 146.4 | 184.1 | 228.5 | 258.8 | 269.2 |
| 70°    | 127.2 | 165.7 | 211.5 | 243.3 | 252.2 |
| 72.5°  | 109.4 | 149.4 | 196.0 | 227.0 | 238.1 |
| 75°    | 91.0  | 132.4 | 179.7 | 211.5 | 221.1 |
| 77.5°  | 73.2  | 116.1 | 164.2 | 196.0 | 206.3 |
| 80°    | 55.5  | 100.6 | 148.6 | 179.7 | 190.1 |
| 82.5°  | 40.7  | 85.0  | 133.9 | 164.9 | 174.5 |
| 85°    | 26.6  | 72.5  | 119.8 | 150.9 | 161.2 |
| 87.5°  | 16.3  | 60.6  | 108.0 | 138.3 | 147.9 |
| 90°    | 8.4   | 61.9  | 116.9 | 151.3 | 162.1 |
| 92.5°  | 30.8  | 66.1  | 114.1 | 144.9 | 154.7 |
| 95°    | 68.5  | 71.5  | 122.6 | 155.5 | 163.4 |
| 97.5°  | 117.9 | 70.7  | 129.0 | 159.2 | 169.1 |
| 100°   | 175.7 | 71.0  | 128.9 | 163.9 | 174.0 |
| 102.5° | 238.5 | 261.0 | 125.6 | 162.8 | 173.8 |
| 105°   | 296.6 | 346.9 | 122.4 | 158.9 | 170.8 |
| 107.5° | 365.0 | 406.8 | 119.1 | 154.9 | 166.9 |
| 110°   | 429.8 | 464.8 | 222.6 | 149.9 | 161.9 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 491.5  | 520.6  | 538.3  | 146.7  | 157.7  |
| 115°   | 557.0  | 581.5  | 638.9  | 215.0  | 153.7  |
| 117.5° | 613.1  | 638.2  | 685.7  | 570.1  | 325.1  |
| 120°   | 676.6  | 694.1  | 741.0  | 773.3  | 651.3  |
| 122.5° | 730.6  | 746.8  | 793.4  | 819.2  | 826.7  |
| 125°   | 784.8  | 797.4  | 839.3  | 866.0  | 875.6  |
| 127.5° | 834.9  | 847.6  | 882.1  | 910.2  | 917.9  |
| 130°   | 882.1  | 896.8  | 923.0  | 951.3  | 956.2  |
| 132.5° | 930.3  | 942.0  | 963.7  | 989.4  | 994.4  |
| 135°   | 970.0  | 985.4  | 1001.5 | 1026.7 | 1030.7 |
| 137.5° | 1012.4 | 1023.9 | 1037.3 | 1061.0 | 1063.3 |
| 140°   | 1053.8 | 1060.8 | 1072.9 | 1093.4 | 1093.0 |
| 142.5° | 1088.5 | 1094.5 | 1107.1 | 1123.7 | 1122.6 |
| 145°   | 1124.4 | 1123.4 | 1139.8 | 1151.0 | 1149.8 |
| 147.5° | 1156.2 | 1153.3 | 1169.7 | 1175.2 | 1173.7 |
| 150°   | 1187.0 | 1180.3 | 1195.7 | 1201.5 | 1196.7 |
| 152.5° | 1213.0 | 1205.3 | 1219.8 | 1225.6 | 1218.8 |
| 155°   | 1238.1 | 1229.4 | 1241.0 | 1246.8 | 1239.1 |
| 157.5° | 1258.3 | 1250.6 | 1259.3 | 1266.0 | 1258.3 |
| 160°   | 1275.7 | 1269.9 | 1275.7 | 1281.5 | 1274.7 |
| 162.5° | 1291.1 | 1285.3 | 1290.1 | 1296.9 | 1288.2 |
| 165°   | 1304.6 | 1298.8 | 1301.7 | 1308.4 | 1301.7 |
| 167.5° | 1315.2 | 1309.4 | 1312.3 | 1319.0 | 1310.4 |
| 170°   | 1323.8 | 1318.1 | 1320.0 | 1326.7 | 1318.1 |
| 172.5° | 1329.6 | 1323.8 | 1325.8 | 1332.5 | 1323.8 |
| 175°   | 1334.4 | 1327.7 | 1329.6 | 1336.4 | 1326.7 |
| 177.5° | 1336.4 | 1329.6 | 1330.6 | 1337.3 | 1328.7 |
| 180°   | 1331.6 | 1331.6 | 1331.6 | 1331.6 | 1331.6 |

(END OF REPORT)