

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: P1032997

Luminaire Tested: S124RDIW-B575D1050UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1032997  
REPORT IS A COMBINATION OF REPORTS P1000496 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B575D1050UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 4 Regressed Direct/Indirect Wall Mount with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

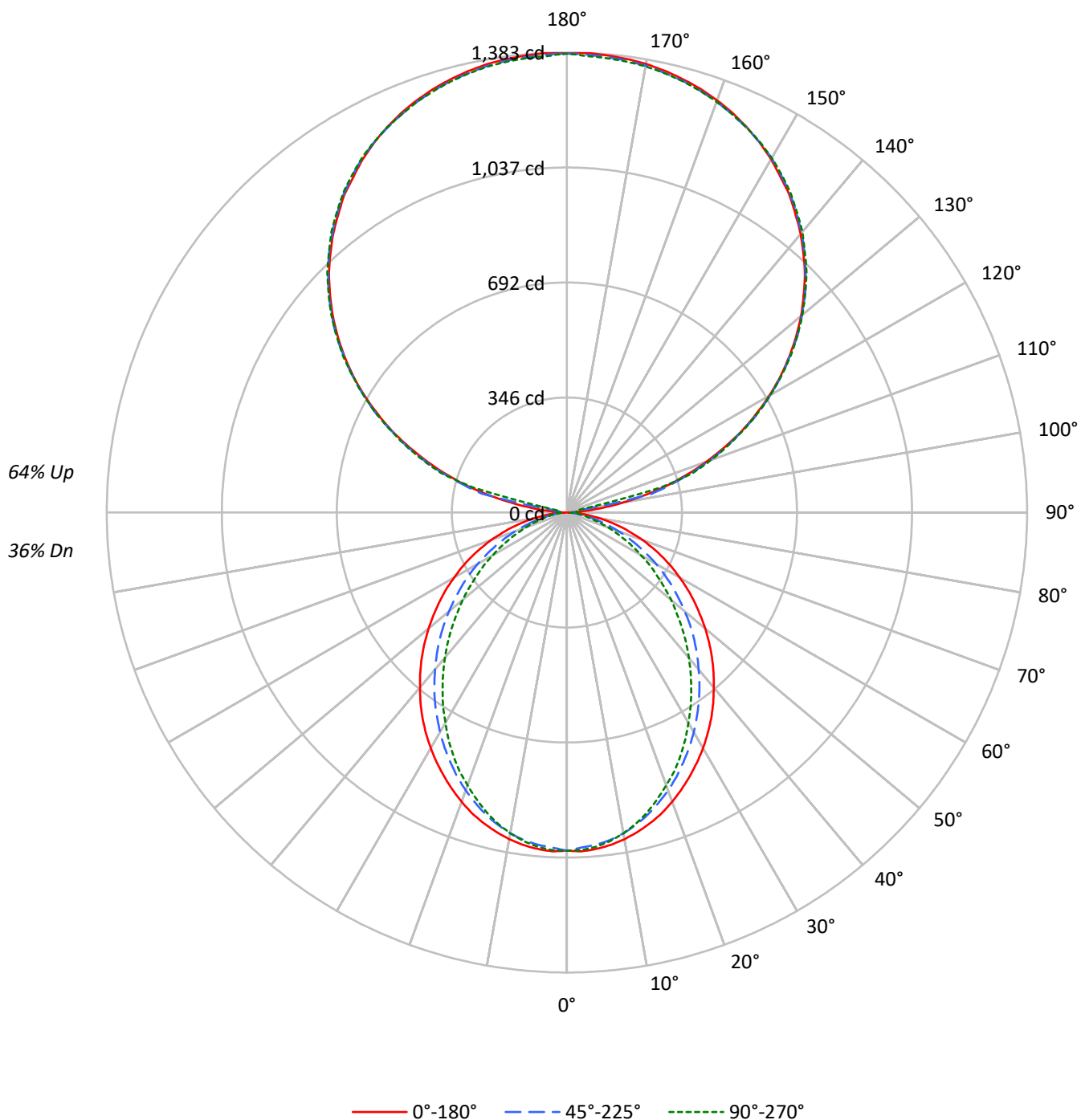
Lumens per Lamp: N/A  
Luminaire Lumens: 6621.0 lumens  
Efficiency: N/A  
Efficacy: 119.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 104 | 104 | 104 | 104 | 94 | 94 | 94 | 94 | 75 | 75 | 75 | 58 | 58 | 58 | 43 | 43 | 43 |    |    | 36 |
| 1   | 95  | 91  | 87  | 83  | 86 | 82 | 79 | 76 | 66 | 64 | 62 | 52 | 50 | 49 | 38 | 37 | 37 |    |    | 30 |
| 2   | 86  | 79  | 73  | 68  | 78 | 72 | 67 | 63 | 58 | 55 | 52 | 45 | 43 | 41 | 34 | 32 | 31 |    |    | 26 |
| 3   | 79  | 70  | 63  | 57  | 71 | 63 | 57 | 53 | 51 | 47 | 44 | 40 | 37 | 35 | 30 | 28 | 27 |    |    | 22 |
| 4   | 72  | 62  | 54  | 48  | 65 | 56 | 50 | 45 | 46 | 41 | 37 | 36 | 33 | 30 | 27 | 25 | 23 |    |    | 19 |
| 5   | 66  | 55  | 47  | 41  | 60 | 50 | 43 | 38 | 41 | 36 | 32 | 32 | 29 | 26 | 24 | 22 | 20 |    |    | 17 |
| 6   | 61  | 49  | 42  | 36  | 55 | 45 | 38 | 33 | 37 | 32 | 28 | 29 | 26 | 23 | 22 | 20 | 18 |    |    | 15 |
| 7   | 56  | 44  | 37  | 31  | 51 | 41 | 34 | 29 | 33 | 28 | 25 | 27 | 23 | 20 | 20 | 18 | 16 |    |    | 13 |
| 8   | 52  | 40  | 33  | 28  | 47 | 37 | 30 | 26 | 30 | 25 | 22 | 24 | 21 | 18 | 19 | 16 | 14 |    |    | 12 |
| 9   | 49  | 37  | 30  | 25  | 44 | 34 | 27 | 23 | 28 | 23 | 20 | 22 | 19 | 16 | 17 | 15 | 13 |    |    | 11 |
| 10  | 45  | 34  | 27  | 22  | 41 | 31 | 25 | 21 | 26 | 21 | 18 | 21 | 17 | 15 | 16 | 13 | 12 |    |    | 10 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8290 | 8290 | 8290 |
| 5°  | 8291 | 8044 | 8044 |
| 10° | 8221 | 7790 | 7698 |
| 15° | 8108 | 7474 | 7287 |
| 20° | 7959 | 7114 | 6820 |
| 25° | 7775 | 6724 | 6364 |
| 30° | 7594 | 6328 | 5852 |
| 35° | 7394 | 5926 | 5350 |
| 40° | 7159 | 5493 | 4836 |
| 45° | 6936 | 5064 | 4326 |
| 50° | 6684 | 4596 | 3809 |
| 55° | 6412 | 4115 | 3275 |
| 60° | 6109 | 3604 | 2748 |
| 65° | 5816 | 3019 | 2240 |
| 70° | 5401 | 2403 | 1712 |
| 75° | 4867 | 1748 | 1198 |
| 80° | 4068 | 1073 | 860  |
| 85° | 3056 | 618  | 474  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6936 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 95.6   | 1.4       |
| 10°-20°   | 266.5  | 4.0       |
| 20°-30°   | 384.8  | 5.8       |
| 30°-40°   | 436.1  | 6.6       |
| 40°-50°   | 421.1  | 6.4       |
| 50°-60°   | 350.1  | 5.3       |
| 60°-70°   | 241.6  | 3.6       |
| 70°-80°   | 122.1  | 1.8       |
| 80°-90°   | 33.9   | 0.5       |
| 90°-100°  | 45.8   | 0.7       |
| 100°-110° | 301.6  | 4.6       |
| 110°-120° | 575.9  | 8.7       |
| 120°-130° | 731.1  | 11.0      |
| 130°-140° | 782.1  | 11.8      |
| 140°-150° | 731.3  | 11.0      |
| 150°-160° | 589.8  | 8.9       |
| 160°-170° | 380.4  | 5.7       |
| 170°-180° | 131.1  | 2.0       |
| 0°-30°    | 747.0  | 11.3      |
| 0°-40°    | 1183.1 | 17.9      |
| 0°-60°    | 1954.3 | 29.5      |
| 0°-90°    | 2351.9 | 35.5      |
| 90°-120°  | 923.3  | 13.9      |
| 90°-150°  | 3167.9 | 47.8      |
| 90°-180°  | 4269.0 | 64.5      |
| 0°-180°   | 6621.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1017 | 1017  | 1017 | 1017  | 1017 |      |
| 5°   | 1015 | 1012  | 1003 | 1010  | 1009 | 96   |
| 15°  | 967  | 960   | 940  | 939   | 933  | 272  |
| 25°  | 874  | 860   | 828  | 815   | 807  | 403  |
| 35°  | 756  | 731   | 692  | 666   | 652  | 472  |
| 45°  | 616  | 588   | 541  | 503   | 489  | 475  |
| 55°  | 467  | 436   | 385  | 345   | 330  | 418  |
| 65°  | 318  | 284   | 234  | 201   | 192  | 314  |
| 75°  | 169  | 140   | 104  | 86    | 81   | 178  |
| 85°  | 42   | 26    | 24   | 23    | 23   | 46   |
| 90°  | 3    | 14    | 23   | 29    | 31   | 5    |
| 95°  | 57   | 22    | 23   | 29    | 30   | 70   |
| 105° | 311  | 317   | 322  | 331   | 294  | 325  |
| 115° | 580  | 583   | 582  | 584   | 584  | 571  |
| 125° | 815  | 819   | 817  | 820   | 821  | 728  |
| 135° | 1011 | 1010  | 1014 | 1016  | 1018 | 779  |
| 145° | 1166 | 1169  | 1169 | 1170  | 1172 | 729  |
| 155° | 1278 | 1280  | 1276 | 1281  | 1278 | 590  |
| 165° | 1349 | 1344  | 1344 | 1352  | 1342 | 381  |
| 175° | 1380 | 1374  | 1374 | 1384  | 1371 | 131  |
| 180° | 1380 | 1380  | 1380 | 1380  | 1380 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1016.6 | 1016.6 | 1016.6 | 1016.6 | 1016.6 |
| 2.5°   | 1019.7 | 1016.6 | 1008.1 | 1016.6 | 1015.8 |
| 5°     | 1015.1 | 1011.9 | 1002.6 | 1010.4 | 1008.8 |
| 7.5°   | 1008.1 | 1004.9 | 993.3  | 998.7  | 996.4  |
| 10°    | 997.2  | 993.3  | 979.3  | 982.4  | 979.3  |
| 12.5°  | 983.1  | 978.5  | 961.3  | 962.9  | 958.2  |
| 15°    | 966.8  | 959.8  | 940.3  | 938.8  | 933.3  |
| 17.5°  | 948.1  | 938.0  | 915.4  | 911.5  | 903.7  |
| 20°    | 925.5  | 915.4  | 889.0  | 882.7  | 872.6  |
| 22.5°  | 900.6  | 889.0  | 860.2  | 850.0  | 842.3  |
| 25°    | 874.2  | 860.2  | 828.2  | 815.0  | 807.2  |
| 27.5°  | 846.9  | 829.8  | 796.3  | 780.8  | 769.9  |
| 30°    | 818.1  | 798.7  | 762.1  | 742.6  | 730.2  |
| 32.5°  | 787.8  | 765.2  | 727.0  | 703.7  | 692.0  |
| 35°    | 755.8  | 730.9  | 692.0  | 665.5  | 651.5  |
| 37.5°  | 722.4  | 696.7  | 653.9  | 625.1  | 611.1  |
| 40°    | 686.6  | 660.9  | 616.5  | 583.8  | 569.8  |
| 42.5°  | 652.3  | 625.1  | 578.4  | 544.9  | 530.1  |
| 45°    | 616.5  | 587.7  | 541.0  | 502.9  | 488.8  |
| 47.5°  | 579.9  | 550.3  | 502.1  | 462.4  | 446.8  |
| 50°    | 542.6  | 512.2  | 462.4  | 423.5  | 408.7  |
| 52.5°  | 504.4  | 474.8  | 423.5  | 383.8  | 368.2  |
| 55°    | 467.1  | 435.9  | 385.3  | 344.8  | 330.1  |
| 57.5°  | 430.5  | 397.8  | 348.0  | 306.7  | 295.8  |
| 60°    | 390.8  | 359.6  | 309.8  | 269.3  | 256.9  |
| 62.5°  | 355.0  | 322.3  | 270.9  | 234.3  | 225.0  |
| 65°    | 317.6  | 284.1  | 234.3  | 200.8  | 191.5  |
| 67.5°  | 278.7  | 246.8  | 200.1  | 170.5  | 159.6  |
| 70°    | 242.1  | 209.4  | 165.0  | 139.3  | 131.6  |
| 72.5°  | 203.2  | 174.4  | 133.1  | 112.1  | 105.1  |
| 75°    | 168.9  | 140.1  | 103.5  | 85.6   | 81.0   |
| 77.5°  | 133.1  | 108.2  | 77.1   | 64.6   | 63.1   |
| 80°    | 98.9   | 76.3   | 52.9   | 50.6   | 49.8   |
| 82.5°  | 69.3   | 49.0   | 38.1   | 36.6   | 35.8   |
| 85°    | 42.0   | 26.5   | 24.1   | 22.6   | 22.6   |
| 87.5°  | 17.9   | 11.7   | 10.9   | 10.1   | 10.9   |
| 90°    | 3.1    | 14.4   | 22.7   | 28.9   | 31.0   |
| 92.5°  | 15.5   | 13.4   | 21.7   | 27.9   | 27.9   |
| 95°    | 56.8   | 21.7   | 22.7   | 28.9   | 29.9   |
| 97.5°  | 108.4  | 131.1  | 22.7   | 27.9   | 28.9   |
| 100°   | 169.2  | 187.8  | 45.4   | 27.9   | 28.9   |
| 102.5° | 237.3  | 249.7  | 262.1  | 29.9   | 29.9   |
| 105°   | 310.6  | 316.8  | 322.0  | 331.2  | 294.1  |
| 107.5° | 377.7  | 380.8  | 388.0  | 393.2  | 397.3  |
| 110°   | 445.8  | 448.9  | 455.1  | 457.1  | 460.2  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 511.8  | 518.0  | 520.1  | 519.0  | 523.2  |
| 115°   | 579.9  | 583.0  | 582.0  | 584.1  | 584.1  |
| 117.5° | 640.8  | 644.9  | 648.0  | 647.0  | 647.0  |
| 120°   | 702.7  | 706.9  | 705.8  | 707.9  | 705.8  |
| 122.5° | 760.5  | 762.6  | 764.6  | 765.7  | 763.6  |
| 125°   | 815.2  | 819.3  | 817.3  | 820.4  | 821.4  |
| 127.5° | 867.8  | 868.9  | 874.0  | 873.0  | 872.0  |
| 130°   | 918.4  | 919.4  | 922.5  | 923.6  | 923.6  |
| 132.5° | 964.8  | 966.9  | 971.0  | 972.1  | 971.0  |
| 135°   | 1011.3 | 1010.2 | 1014.4 | 1016.4 | 1018.5 |
| 137.5° | 1052.5 | 1052.5 | 1057.7 | 1059.8 | 1058.7 |
| 140°   | 1092.8 | 1094.9 | 1096.9 | 1100.0 | 1101.0 |
| 142.5° | 1128.9 | 1133.0 | 1134.1 | 1136.1 | 1136.1 |
| 145°   | 1166.1 | 1169.1 | 1169.1 | 1170.2 | 1172.2 |
| 147.5° | 1194.9 | 1201.1 | 1200.1 | 1201.1 | 1202.2 |
| 150°   | 1226.9 | 1231.1 | 1230.0 | 1230.0 | 1231.1 |
| 152.5° | 1253.8 | 1256.9 | 1254.8 | 1256.9 | 1255.8 |
| 155°   | 1278.5 | 1279.6 | 1276.5 | 1280.6 | 1277.5 |
| 157.5° | 1300.2 | 1300.2 | 1296.1 | 1301.2 | 1296.1 |
| 160°   | 1318.8 | 1315.7 | 1314.6 | 1320.8 | 1314.6 |
| 162.5° | 1335.3 | 1331.2 | 1330.1 | 1336.3 | 1329.1 |
| 165°   | 1348.7 | 1343.5 | 1343.5 | 1351.8 | 1342.5 |
| 167.5° | 1360.1 | 1354.9 | 1353.9 | 1363.1 | 1352.8 |
| 170°   | 1369.3 | 1363.1 | 1364.2 | 1372.4 | 1362.1 |
| 172.5° | 1375.5 | 1369.3 | 1370.4 | 1378.6 | 1367.3 |
| 175°   | 1379.7 | 1373.5 | 1374.5 | 1383.8 | 1371.4 |
| 177.5° | 1382.8 | 1375.5 | 1377.6 | 1385.9 | 1373.5 |
| 180°   | 1379.7 | 1379.7 | 1379.7 | 1379.7 | 1379.7 |

(END OF REPORT)