

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: P1034235

Luminaire Tested: S124RDIW-B795D1050UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1034235  
REPORT IS A COMBINATION OF REPORTS P1000741 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B795D1050UB50-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Wall Mount with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

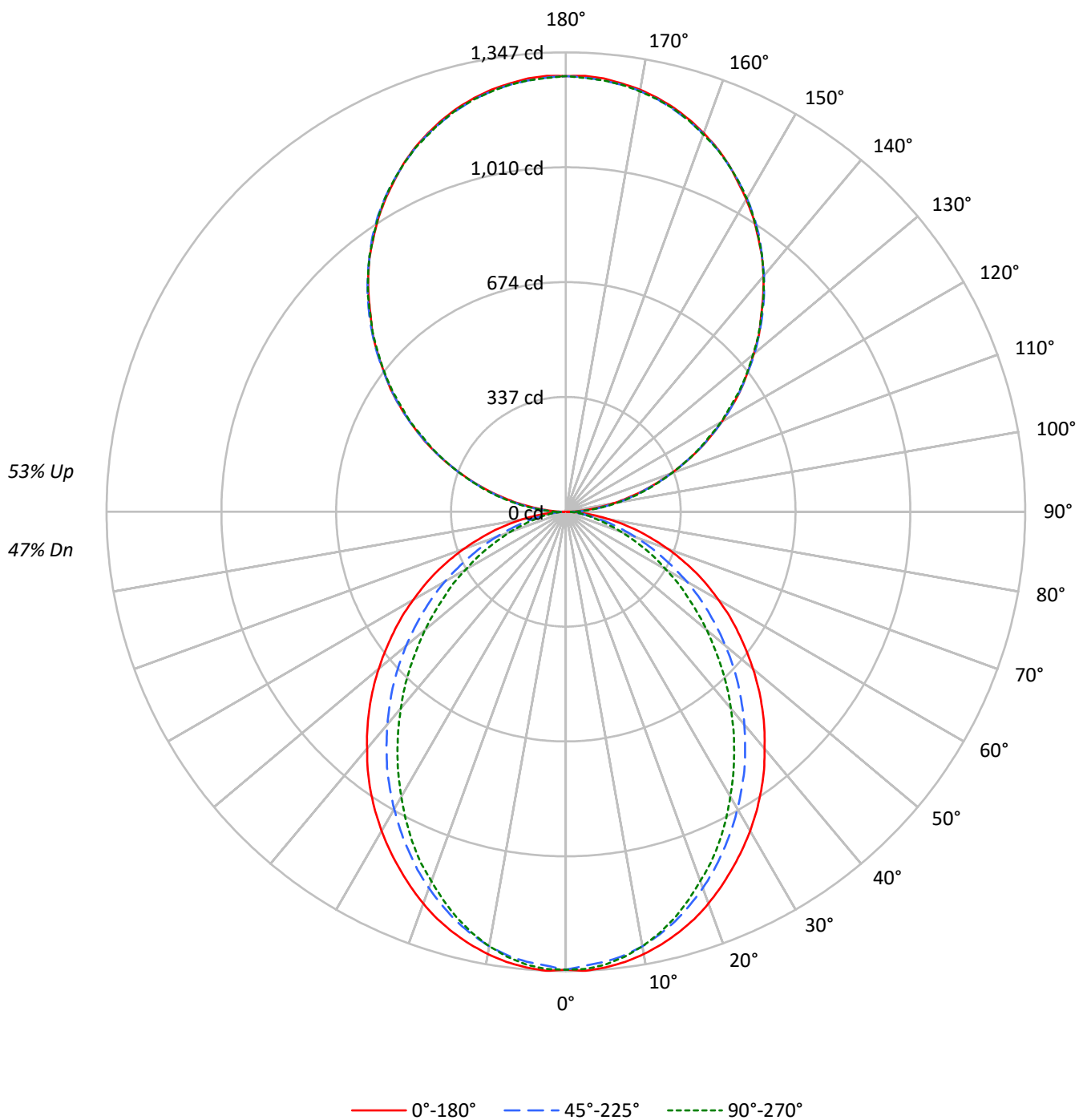
Lumens per Lamp: N/A  
Luminaire Lumens: 6650.0 lumens  
Efficiency: N/A  
Efficacy: 98.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 67.4  
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 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 106 | 106 | 106 | 106 | 98 | 98 | 98 | 98 | 82 | 82 | 82 | 67 | 67 | 67 | 53 | 53 | 53 | 47 | 47 | 47 |
| 1   | 97  | 93  | 89  | 86  | 89 | 86 | 82 | 80 | 72 | 70 | 67 | 59 | 57 | 56 | 47 | 46 | 45 | 40 | 40 | 40 |
| 2   | 89  | 82  | 76  | 71  | 81 | 75 | 70 | 66 | 63 | 59 | 56 | 52 | 50 | 47 | 42 | 40 | 39 | 34 | 34 | 34 |
| 3   | 81  | 72  | 65  | 59  | 74 | 66 | 60 | 55 | 56 | 51 | 48 | 46 | 43 | 40 | 37 | 35 | 33 | 29 | 29 | 29 |
| 4   | 74  | 64  | 56  | 50  | 68 | 59 | 52 | 47 | 50 | 45 | 41 | 41 | 38 | 35 | 34 | 31 | 29 | 25 | 25 | 25 |
| 5   | 68  | 57  | 49  | 43  | 63 | 53 | 46 | 40 | 45 | 39 | 35 | 37 | 33 | 30 | 30 | 27 | 25 | 22 | 22 | 22 |
| 6   | 63  | 51  | 43  | 37  | 58 | 47 | 40 | 35 | 40 | 35 | 31 | 34 | 30 | 26 | 28 | 25 | 22 | 19 | 19 | 19 |
| 7   | 58  | 46  | 38  | 33  | 53 | 43 | 36 | 31 | 37 | 31 | 27 | 31 | 27 | 23 | 25 | 22 | 20 | 17 | 17 | 17 |
| 8   | 54  | 42  | 34  | 29  | 50 | 39 | 32 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 23 | 20 | 18 | 15 | 15 | 15 |
| 9   | 50  | 38  | 31  | 26  | 46 | 36 | 29 | 25 | 31 | 25 | 22 | 26 | 22 | 19 | 21 | 18 | 16 | 14 | 14 | 14 |
| 10  | 47  | 35  | 28  | 23  | 43 | 33 | 26 | 22 | 28 | 23 | 20 | 24 | 20 | 17 | 20 | 17 | 15 | 13 | 13 | 13 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10951 | 10951 | 10951 |
| 5°  | 10952 | 10625 | 10627 |
| 10° | 10859 | 10290 | 10168 |
| 15° | 10710 | 9873  | 9627  |
| 20° | 10514 | 9397  | 9009  |
| 25° | 10271 | 8883  | 8406  |
| 30° | 10031 | 8360  | 7729  |
| 35° | 9769  | 7828  | 7068  |
| 40° | 9456  | 7257  | 6388  |
| 45° | 9163  | 6690  | 5716  |
| 50° | 8829  | 6071  | 5031  |
| 55° | 8469  | 5436  | 4326  |
| 60° | 8069  | 4762  | 3629  |
| 65° | 7682  | 3988  | 2959  |
| 70° | 7135  | 3175  | 2261  |
| 75° | 6429  | 2310  | 1581  |
| 80° | 5371  | 1418  | 1137  |
| 85° | 4039  | 817   | 625   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9163 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.3  | 1.9       |
| 10°-20°   | 352.1  | 5.3       |
| 20°-30°   | 508.3  | 7.6       |
| 30°-40°   | 576.1  | 8.7       |
| 40°-50°   | 556.3  | 8.4       |
| 50°-60°   | 462.5  | 7.0       |
| 60°-70°   | 319.2  | 4.8       |
| 70°-80°   | 161.3  | 2.4       |
| 80°-90°   | 43.7   | 0.7       |
| 90°-100°  | 83.3   | 1.3       |
| 100°-110° | 249.4  | 3.8       |
| 110°-120° | 423.7  | 6.4       |
| 120°-130° | 558.7  | 8.4       |
| 130°-140° | 627.6  | 9.4       |
| 140°-150° | 616.8  | 9.3       |
| 150°-160° | 518.8  | 7.8       |
| 160°-170° | 345.2  | 5.2       |
| 170°-180° | 120.9  | 1.8       |
| 0°-30°    | 986.7  | 14.8      |
| 0°-40°    | 1562.8 | 23.5      |
| 0°-60°    | 2581.6 | 38.8      |
| 0°-90°    | 3105.7 | 46.7      |
| 90°-120°  | 756.3  | 11.4      |
| 90°-150°  | 2559.4 | 38.5      |
| 90°-180°  | 3544.0 | 53.3      |
| 0°-180°   | 6650.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1343 | 1343  | 1343 | 1343  | 1343 |      |
| 5°   | 1341 | 1337  | 1324 | 1335  | 1333 | 127  |
| 15°  | 1277 | 1268  | 1242 | 1240  | 1233 | 360  |
| 25°  | 1155 | 1136  | 1094 | 1077  | 1066 | 532  |
| 35°  | 998  | 966   | 914  | 879   | 861  | 624  |
| 45°  | 814  | 776   | 715  | 664   | 646  | 628  |
| 55°  | 617  | 576   | 509  | 456   | 436  | 552  |
| 65°  | 420  | 375   | 310  | 265   | 253  | 414  |
| 75°  | 223  | 185   | 137  | 113   | 107  | 235  |
| 85°  | 56   | 35    | 32   | 30    | 30   | 61   |
| 90°  | 3    | 14    | 22   | 28    | 30   | 8    |
| 95°  | 59   | 68    | 75   | 78    | 78   | 64   |
| 105° | 230  | 231   | 235  | 238   | 241  | 244  |
| 115° | 431  | 431   | 429  | 428   | 427  | 425  |
| 125° | 627  | 627   | 626  | 624   | 622  | 559  |
| 135° | 809  | 815   | 815  | 813   | 810  | 626  |
| 145° | 983  | 987   | 988  | 987   | 984  | 615  |
| 155° | 1126 | 1126  | 1125 | 1129  | 1125 | 518  |
| 165° | 1226 | 1223  | 1221 | 1227  | 1223 | 346  |
| 175° | 1275 | 1270  | 1270 | 1276  | 1270 | 121  |
| 180° | 1277 | 1277  | 1277 | 1277  | 1277 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1342.9 | 1342.9 | 1342.9 | 1342.9 | 1342.9 |
| 2.5°   | 1347.1 | 1342.9 | 1331.6 | 1342.9 | 1341.9 |
| 5°     | 1340.9 | 1336.8 | 1324.4 | 1334.7 | 1332.7 |
| 7.5°   | 1331.6 | 1327.5 | 1312.1 | 1319.3 | 1316.2 |
| 10°    | 1317.2 | 1312.1 | 1293.6 | 1297.7 | 1293.6 |
| 12.5°  | 1298.7 | 1292.6 | 1269.9 | 1272.0 | 1265.8 |
| 15°    | 1277.1 | 1267.9 | 1242.2 | 1240.1 | 1232.9 |
| 17.5°  | 1252.4 | 1239.1 | 1209.3 | 1204.1 | 1193.8 |
| 20°    | 1222.6 | 1209.3 | 1174.3 | 1166.1 | 1152.7 |
| 22.5°  | 1189.7 | 1174.3 | 1136.3 | 1122.9 | 1112.6 |
| 25°    | 1154.8 | 1136.3 | 1094.1 | 1076.6 | 1066.3 |
| 27.5°  | 1118.8 | 1096.1 | 1051.9 | 1031.4 | 1017.0 |
| 30°    | 1080.7 | 1055.0 | 1006.7 | 981.0  | 964.5  |
| 32.5°  | 1040.6 | 1010.8 | 960.4  | 929.6  | 914.1  |
| 35°    | 998.5  | 965.6  | 914.1  | 879.2  | 860.7  |
| 37.5°  | 954.2  | 920.3  | 863.8  | 825.7  | 807.2  |
| 40°    | 906.9  | 873.0  | 814.4  | 771.2  | 752.7  |
| 42.5°  | 861.7  | 825.7  | 764.0  | 719.8  | 700.3  |
| 45°    | 814.4  | 776.4  | 714.7  | 664.3  | 645.8  |
| 47.5°  | 766.1  | 727.0  | 663.2  | 610.8  | 590.2  |
| 50°    | 716.7  | 676.6  | 610.8  | 559.4  | 539.8  |
| 52.5°  | 666.3  | 627.3  | 559.4  | 506.9  | 486.4  |
| 55°    | 617.0  | 575.8  | 509.0  | 455.5  | 436.0  |
| 57.5°  | 568.6  | 525.5  | 459.6  | 405.1  | 390.7  |
| 60°    | 516.2  | 475.1  | 409.3  | 355.8  | 339.3  |
| 62.5°  | 468.9  | 425.7  | 357.8  | 309.5  | 297.2  |
| 65°    | 419.5  | 375.3  | 309.5  | 265.3  | 253.0  |
| 67.5°  | 368.1  | 326.0  | 264.3  | 225.2  | 210.8  |
| 70°    | 319.8  | 276.6  | 218.0  | 184.1  | 173.8  |
| 72.5°  | 268.4  | 230.3  | 175.8  | 148.1  | 138.8  |
| 75°    | 223.1  | 185.1  | 136.8  | 113.1  | 106.9  |
| 77.5°  | 175.8  | 142.9  | 101.8  | 85.3   | 83.3   |
| 80°    | 130.6  | 100.8  | 69.9   | 66.8   | 65.8   |
| 82.5°  | 91.5   | 64.8   | 50.4   | 48.3   | 47.3   |
| 85°    | 55.5   | 35.0   | 31.9   | 29.8   | 29.8   |
| 87.5°  | 23.7   | 15.4   | 14.4   | 13.4   | 14.4   |
| 90°    | 3.0    | 13.8   | 21.7   | 27.7   | 29.6   |
| 92.5°  | 25.7   | 38.5   | 43.5   | 46.4   | 47.4   |
| 95°    | 59.3   | 68.2   | 75.1   | 78.0   | 78.0   |
| 97.5°  | 94.8   | 102.7  | 110.6  | 114.6  | 114.6  |
| 100°   | 138.3  | 142.3  | 151.2  | 153.1  | 153.1  |
| 102.5° | 183.8  | 184.7  | 192.6  | 195.6  | 196.6  |
| 105°   | 230.2  | 231.2  | 235.1  | 238.1  | 241.1  |
| 107.5° | 278.6  | 279.6  | 280.6  | 284.5  | 283.5  |
| 110°   | 328.0  | 330.0  | 329.0  | 327.0  | 330.0  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 379.4  | 379.4  | 377.4  | 377.4  | 377.4  |
| 115°   | 430.7  | 430.7  | 428.8  | 427.8  | 426.8  |
| 117.5° | 479.1  | 479.1  | 478.2  | 475.2  | 472.2  |
| 120°   | 527.6  | 531.5  | 528.5  | 523.6  | 525.6  |
| 122.5° | 577.9  | 578.9  | 577.9  | 575.0  | 570.0  |
| 125°   | 627.3  | 627.3  | 626.3  | 624.4  | 622.4  |
| 127.5° | 671.8  | 674.8  | 672.8  | 670.8  | 669.8  |
| 130°   | 719.2  | 722.2  | 722.2  | 720.2  | 716.2  |
| 132.5° | 767.6  | 769.6  | 768.6  | 766.6  | 765.6  |
| 135°   | 809.1  | 815.0  | 815.0  | 813.1  | 810.1  |
| 137.5° | 855.5  | 858.5  | 860.5  | 857.5  | 858.5  |
| 140°   | 902.0  | 903.9  | 903.9  | 903.0  | 902.0  |
| 142.5° | 944.5  | 946.4  | 945.4  | 945.4  | 945.4  |
| 145°   | 983.0  | 986.9  | 987.9  | 986.9  | 984.0  |
| 147.5° | 1022.5 | 1027.4 | 1026.5 | 1025.5 | 1024.5 |
| 150°   | 1058.1 | 1062.0 | 1062.0 | 1062.0 | 1061.0 |
| 152.5° | 1091.7 | 1093.6 | 1094.6 | 1097.6 | 1094.6 |
| 155°   | 1126.2 | 1126.2 | 1125.2 | 1129.2 | 1125.2 |
| 157.5° | 1155.9 | 1153.9 | 1153.9 | 1156.9 | 1153.9 |
| 160°   | 1181.6 | 1180.6 | 1179.6 | 1182.5 | 1177.6 |
| 162.5° | 1205.3 | 1202.3 | 1201.3 | 1207.2 | 1202.3 |
| 165°   | 1226.0 | 1223.0 | 1221.1 | 1227.0 | 1223.0 |
| 167.5° | 1242.8 | 1238.9 | 1238.9 | 1244.8 | 1238.9 |
| 170°   | 1256.6 | 1251.7 | 1252.7 | 1258.6 | 1251.7 |
| 172.5° | 1266.5 | 1262.6 | 1262.6 | 1269.5 | 1262.6 |
| 175°   | 1275.4 | 1270.5 | 1269.5 | 1276.4 | 1269.5 |
| 177.5° | 1279.4 | 1274.4 | 1274.4 | 1281.3 | 1273.4 |
| 180°   | 1277.4 | 1277.4 | 1277.4 | 1277.4 | 1277.4 |

(END OF REPORT)