

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: P1033078

Luminaire Tested: S124RDIW-B795D470UB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033078  
REPORT IS A COMBINATION OF REPORTS P1000850 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B795D470UB2750-4F0-XX-W2A-F\_5000K  
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**

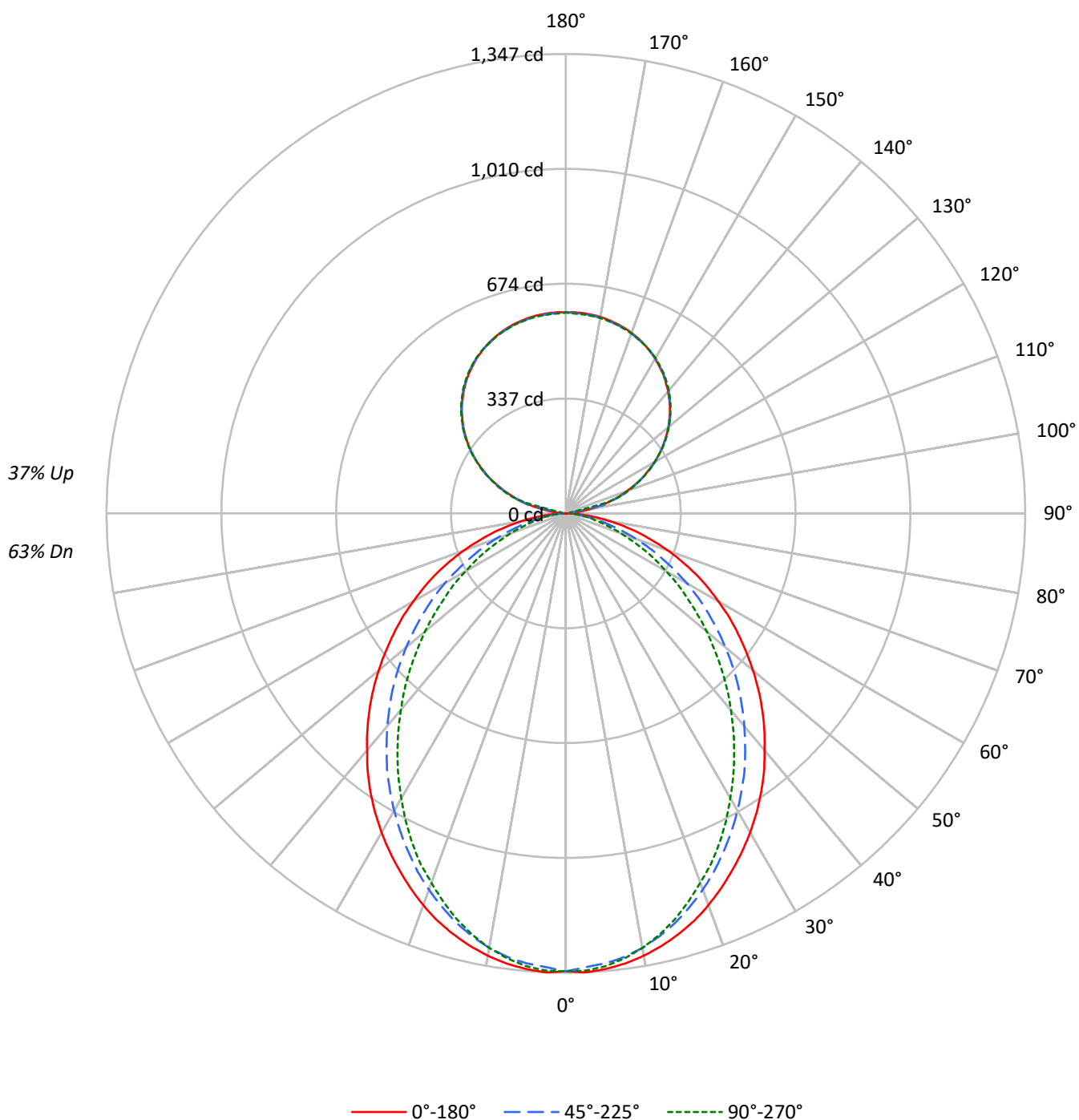
Lumens per Lamp: N/A  
Luminaire Lumens: 4927.0 lumens  
Efficiency: N/A  
Efficacy: 100.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 49.1  
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

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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   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 91 | 91 | 91 | 79 | 79 | 79 | 68 | 68 | 68 | 68 | 68 | 68 |
| 1   | 101 | 97  | 93  | 89  | 95  | 91  | 88  | 85  | 80 | 78 | 75 | 70 | 68 | 66 | 61 | 59 | 58 | 58 | 58 | 58 |
| 2   | 92  | 85  | 79  | 74  | 86  | 80  | 75  | 70  | 71 | 66 | 63 | 62 | 59 | 56 | 54 | 52 | 50 | 50 | 50 | 50 |
| 3   | 84  | 75  | 68  | 62  | 79  | 71  | 64  | 59  | 63 | 57 | 53 | 55 | 51 | 48 | 48 | 45 | 43 | 43 | 43 | 43 |
| 4   | 77  | 67  | 59  | 53  | 72  | 63  | 56  | 50  | 56 | 50 | 46 | 49 | 45 | 41 | 43 | 40 | 37 | 37 | 37 | 37 |
| 5   | 71  | 60  | 51  | 45  | 67  | 56  | 49  | 43  | 50 | 44 | 40 | 44 | 40 | 36 | 39 | 35 | 32 | 32 | 32 | 32 |
| 6   | 66  | 54  | 45  | 40  | 62  | 51  | 43  | 38  | 45 | 39 | 35 | 40 | 35 | 32 | 35 | 32 | 29 | 29 | 29 | 29 |
| 7   | 61  | 49  | 41  | 35  | 57  | 46  | 39  | 34  | 41 | 35 | 31 | 37 | 32 | 28 | 32 | 29 | 26 | 26 | 26 | 26 |
| 8   | 57  | 44  | 36  | 31  | 53  | 42  | 35  | 30  | 38 | 32 | 28 | 34 | 29 | 25 | 30 | 26 | 23 | 23 | 23 | 23 |
| 9   | 53  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 35 | 29 | 25 | 31 | 26 | 23 | 28 | 24 | 21 | 21 | 21 | 21 |
| 10  | 49  | 37  | 30  | 25  | 46  | 35  | 29  | 24  | 32 | 26 | 23 | 29 | 24 | 21 | 26 | 22 | 19 | 19 | 19 | 19 |

**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  | 2.6       |
| 10°-20°   | 352.1  | 7.1       |
| 20°-30°   | 508.3  | 10.3      |
| 30°-40°   | 576.1  | 11.7      |
| 40°-50°   | 556.3  | 11.3      |
| 50°-60°   | 462.5  | 9.4       |
| 60°-70°   | 319.2  | 6.5       |
| 70°-80°   | 161.3  | 3.3       |
| 80°-90°   | 42.2   | 0.9       |
| 90°-100°  | 19.6   | 0.4       |
| 100°-110° | 128.8  | 2.6       |
| 110°-120° | 245.9  | 5.0       |
| 120°-130° | 312.2  | 6.3       |
| 130°-140° | 333.9  | 6.8       |
| 140°-150° | 312.3  | 6.3       |
| 150°-160° | 251.8  | 5.1       |
| 160°-170° | 162.4  | 3.3       |
| 170°-180° | 56.0   | 1.1       |
| 0°-30°    | 986.7  | 20.0      |
| 0°-40°    | 1562.8 | 31.7      |
| 0°-60°    | 2581.6 | 52.4      |
| 0°-90°    | 3104.2 | 63.0      |
| 90°-120°  | 394.2  | 8.0       |
| 90°-150°  | 1352.6 | 27.5      |
| 90°-180°  | 1823.0 | 37.0      |
| 0°-180°   | 4927.0 | 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°  | 1    | 6     | 10   | 12    | 13   | 5    |
| 95°  | 24   | 9     | 10   | 12    | 13   | 30   |
| 105° | 133  | 135   | 138  | 141   | 126  | 139  |
| 115° | 248  | 249   | 248  | 249   | 249  | 244  |
| 125° | 348  | 350   | 349  | 350   | 351  | 311  |
| 135° | 432  | 431   | 433  | 434   | 435  | 333  |
| 145° | 498  | 499   | 499  | 500   | 500  | 311  |
| 155° | 546  | 546   | 545  | 547   | 545  | 252  |
| 165° | 576  | 574   | 574  | 577   | 573  | 163  |
| 175° | 589  | 586   | 587  | 591   | 586  | 56   |
| 180° | 589  | 589   | 589  | 589   | 589  |      |

TEST NUMBER: P1033078

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F\_5000K

**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°    | 1.3    | 6.2    | 9.7    | 12.3   | 13.2   |
| 92.5°  | 6.6    | 5.7    | 9.3    | 11.9   | 11.9   |
| 95°    | 24.2   | 9.3    | 9.7    | 12.3   | 12.8   |
| 97.5°  | 46.3   | 56.0   | 9.7    | 11.9   | 12.3   |
| 100°   | 72.3   | 80.2   | 19.4   | 11.9   | 12.3   |
| 102.5° | 101.3  | 106.6  | 111.9  | 12.8   | 12.8   |
| 105°   | 132.6  | 135.3  | 137.5  | 141.4  | 125.6  |
| 107.5° | 161.3  | 162.6  | 165.7  | 167.9  | 169.6  |
| 110°   | 190.3  | 191.7  | 194.3  | 195.2  | 196.5  |

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CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F\_5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 218.5 | 221.2 | 222.1 | 221.6 | 223.4 |
| 115°   | 247.6 | 248.9 | 248.5 | 249.4 | 249.4 |
| 117.5° | 273.6 | 275.4 | 276.7 | 276.2 | 276.2 |
| 120°   | 300.0 | 301.8 | 301.4 | 302.2 | 301.4 |
| 122.5° | 324.7 | 325.6 | 326.5 | 326.9 | 326.0 |
| 125°   | 348.1 | 349.8 | 348.9 | 350.3 | 350.7 |
| 127.5° | 370.5 | 371.0 | 373.2 | 372.7 | 372.3 |
| 130°   | 392.1 | 392.6 | 393.9 | 394.3 | 394.3 |
| 132.5° | 412.0 | 412.8 | 414.6 | 415.0 | 414.6 |
| 135°   | 431.8 | 431.3 | 433.1 | 434.0 | 434.9 |
| 137.5° | 449.4 | 449.4 | 451.6 | 452.5 | 452.0 |
| 140°   | 466.6 | 467.5 | 468.3 | 469.7 | 470.1 |
| 142.5° | 482.0 | 483.8 | 484.2 | 485.1 | 485.1 |
| 145°   | 497.9 | 499.2 | 499.2 | 499.6 | 500.5 |
| 147.5° | 510.2 | 512.8 | 512.4 | 512.8 | 513.3 |
| 150°   | 523.9 | 525.6 | 525.2 | 525.2 | 525.6 |
| 152.5° | 535.3 | 536.6 | 535.8 | 536.6 | 536.2 |
| 155°   | 545.9 | 546.3 | 545.0 | 546.8 | 545.4 |
| 157.5° | 555.1 | 555.1 | 553.4 | 555.6 | 553.4 |
| 160°   | 563.1 | 561.8 | 561.3 | 564.0 | 561.3 |
| 162.5° | 570.1 | 568.4 | 567.9 | 570.6 | 567.5 |
| 165°   | 575.9 | 573.6 | 573.6 | 577.2 | 573.2 |
| 167.5° | 580.7 | 578.5 | 578.1 | 582.0 | 577.6 |
| 170°   | 584.7 | 582.0 | 582.5 | 586.0 | 581.6 |
| 172.5° | 587.3 | 584.7 | 585.1 | 588.6 | 583.8 |
| 175°   | 589.1 | 586.4 | 586.9 | 590.8 | 585.5 |
| 177.5° | 590.4 | 587.3 | 588.2 | 591.7 | 586.4 |
| 180°   | 589.1 | 589.1 | 589.1 | 589.1 | 589.1 |

(END OF REPORT)