

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: P1033074

Luminaire Tested: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1033074  
REPORT IS A COMBINATION OF REPORTS P1000844 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-F1\_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**

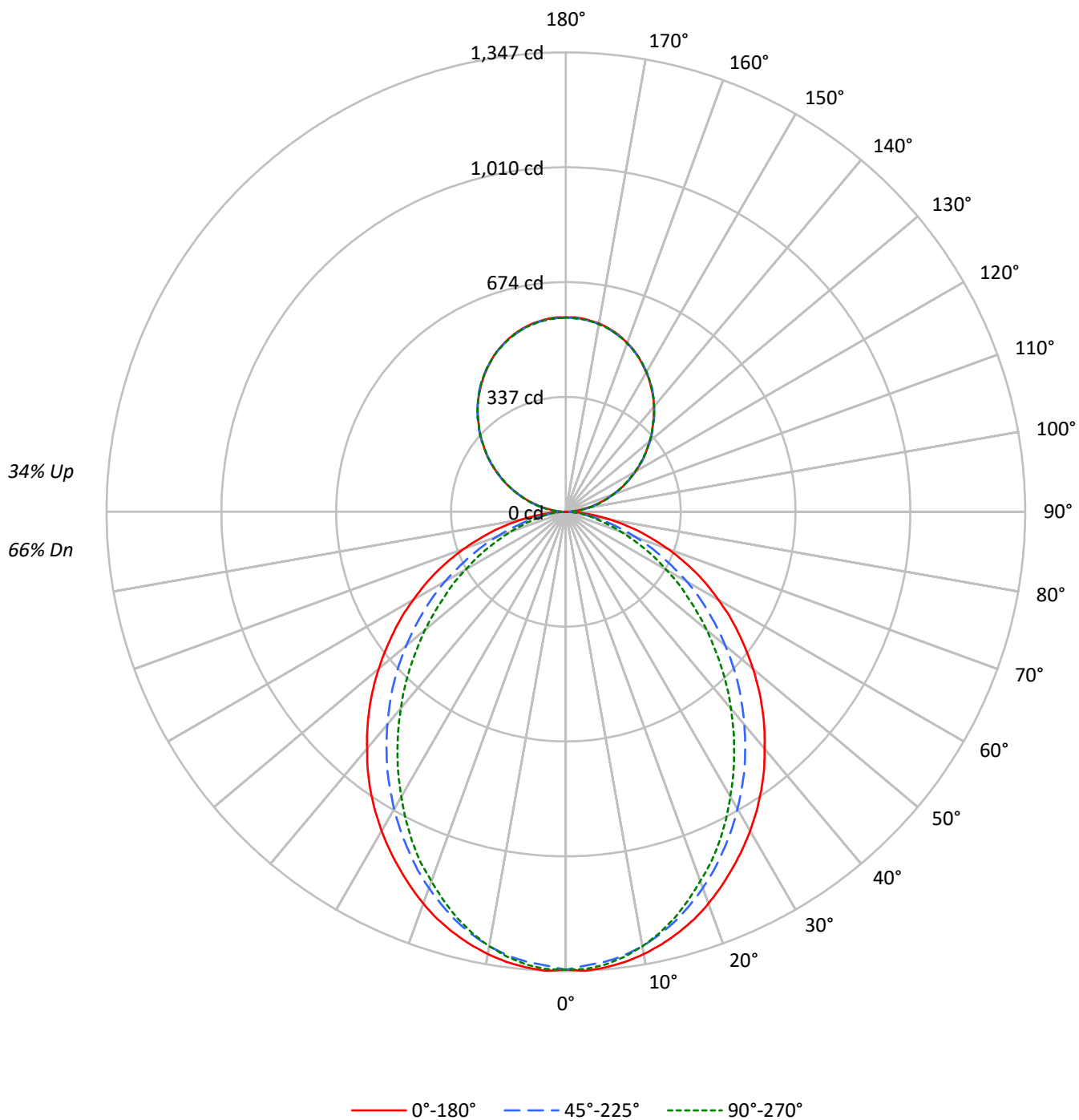
Lumens per Lamp: N/A  
Luminaire Lumens: 4685.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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

TEST NUMBER: P1033074

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_5000K

### Luminous Intensity Polar Plot



TEST NUMBER: P1033074

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_5000K

**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   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 | 66 |    |    |
| 1   | 102 | 98  | 94  | 90  | 96  | 92  | 89  | 86  | 82 | 79 | 77 | 72 | 70 | 69 | 63 | 62 | 61 | 57 |    |    |
| 2   | 93  | 86  | 79  | 74  | 87  | 81  | 75  | 71  | 72 | 68 | 64 | 64 | 61 | 58 | 56 | 54 | 52 | 48 |    |    |
| 3   | 85  | 76  | 68  | 62  | 80  | 71  | 65  | 60  | 64 | 59 | 54 | 57 | 53 | 49 | 50 | 47 | 44 | 41 |    |    |
| 4   | 78  | 67  | 59  | 53  | 73  | 64  | 56  | 51  | 57 | 51 | 47 | 51 | 46 | 43 | 45 | 41 | 39 | 35 |    |    |
| 5   | 72  | 60  | 52  | 46  | 67  | 57  | 50  | 44  | 51 | 45 | 41 | 46 | 41 | 37 | 41 | 37 | 34 | 31 |    |    |
| 6   | 66  | 54  | 46  | 40  | 62  | 51  | 44  | 39  | 46 | 40 | 36 | 42 | 37 | 33 | 37 | 33 | 30 | 27 |    |    |
| 7   | 61  | 49  | 41  | 35  | 58  | 47  | 39  | 34  | 42 | 36 | 32 | 38 | 33 | 29 | 34 | 30 | 27 | 24 |    |    |
| 8   | 57  | 45  | 37  | 31  | 54  | 43  | 35  | 30  | 39 | 33 | 28 | 35 | 30 | 26 | 31 | 27 | 24 | 22 |    |    |
| 9   | 53  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 35 | 30 | 25 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |    |    |
| 10  | 50  | 38  | 30  | 26  | 47  | 36  | 29  | 25  | 33 | 27 | 23 | 30 | 25 | 21 | 27 | 23 | 20 | 18 |    |    |

**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

TEST NUMBER: P1033074

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_5000K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 126.3  | 2.7       |
| 10°-20°   | 352.1  | 7.5       |
| 20°-30°   | 508.3  | 10.9      |
| 30°-40°   | 576.1  | 12.3      |
| 40°-50°   | 556.3  | 11.9      |
| 50°-60°   | 462.5  | 9.9       |
| 60°-70°   | 319.2  | 6.8       |
| 70°-80°   | 161.3  | 3.4       |
| 80°-90°   | 42.2   | 0.9       |
| 90°-100°  | 37.1   | 0.8       |
| 100°-110° | 111.2  | 2.4       |
| 110°-120° | 189.0  | 4.0       |
| 120°-130° | 249.2  | 5.3       |
| 130°-140° | 279.9  | 6.0       |
| 140°-150° | 275.1  | 5.9       |
| 150°-160° | 231.4  | 4.9       |
| 160°-170° | 153.9  | 3.3       |
| 170°-180° | 53.9   | 1.2       |
| 0°-30°    | 986.7  | 21.1      |
| 0°-40°    | 1562.8 | 33.4      |
| 0°-60°    | 2581.6 | 55.1      |
| 0°-90°    | 3104.2 | 66.3      |
| 90°-120°  | 337.3  | 7.2       |
| 90°-150°  | 1141.5 | 24.4      |
| 90°-180°  | 1581.0 | 33.7      |
| 0°-180°   | 4685.0 | 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°  | 26   | 30    | 34   | 35    | 35   | 29   |
| 105° | 103  | 103   | 105  | 106   | 108  | 109  |
| 115° | 192  | 192   | 191  | 191   | 190  | 189  |
| 125° | 280  | 280   | 279  | 278   | 278  | 249  |
| 135° | 361  | 364   | 364  | 363   | 361  | 279  |
| 145° | 438  | 440   | 441  | 440   | 439  | 274  |
| 155° | 502  | 502   | 502  | 504   | 502  | 231  |
| 165° | 547  | 546   | 545  | 547   | 546  | 154  |
| 175° | 569  | 567   | 566  | 569   | 566  | 54   |
| 180° | 570  | 570   | 570  | 570   | 570  |      |

TEST NUMBER: P1033074

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_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°  | 11.5   | 17.2   | 19.4   | 20.7   | 21.1   |
| 95°    | 26.4   | 30.4   | 33.5   | 34.8   | 34.8   |
| 97.5°  | 42.3   | 45.8   | 49.3   | 51.1   | 51.1   |
| 100°   | 61.7   | 63.4   | 67.4   | 68.3   | 68.3   |
| 102.5° | 82.0   | 82.4   | 85.9   | 87.2   | 87.7   |
| 105°   | 102.7  | 103.1  | 104.9  | 106.2  | 107.5  |
| 107.5° | 124.3  | 124.7  | 125.1  | 126.9  | 126.5  |
| 110°   | 146.3  | 147.2  | 146.7  | 145.8  | 147.2  |

TEST NUMBER: P1033074

CATALOG NUMBER: S124RDIW-B795D470UB2750-4F0-XX-W2A-F1\_5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 169.2 | 169.2 | 168.3 | 168.3 | 168.3 |
| 115°   | 192.1 | 192.1 | 191.2 | 190.8 | 190.3 |
| 117.5° | 213.7 | 213.7 | 213.3 | 211.9 | 210.6 |
| 120°   | 235.3 | 237.1 | 235.7 | 233.5 | 234.4 |
| 122.5° | 257.8 | 258.2 | 257.8 | 256.4 | 254.2 |
| 125°   | 279.8 | 279.8 | 279.4 | 278.5 | 277.6 |
| 127.5° | 299.6 | 300.9 | 300.1 | 299.2 | 298.7 |
| 130°   | 320.8 | 322.1 | 322.1 | 321.2 | 319.5 |
| 132.5° | 342.4 | 343.2 | 342.8 | 341.9 | 341.5 |
| 135°   | 360.9 | 363.5 | 363.5 | 362.6 | 361.3 |
| 137.5° | 381.6 | 382.9 | 383.8 | 382.5 | 382.9 |
| 140°   | 402.3 | 403.2 | 403.2 | 402.7 | 402.3 |
| 142.5° | 421.2 | 422.1 | 421.7 | 421.7 | 421.7 |
| 145°   | 438.4 | 440.2 | 440.6 | 440.2 | 438.9 |
| 147.5° | 456.0 | 458.2 | 457.8 | 457.4 | 456.9 |
| 150°   | 471.9 | 473.7 | 473.7 | 473.7 | 473.2 |
| 152.5° | 486.9 | 487.8 | 488.2 | 489.5 | 488.2 |
| 155°   | 502.3 | 502.3 | 501.9 | 503.6 | 501.9 |
| 157.5° | 515.5 | 514.6 | 514.6 | 516.0 | 514.6 |
| 160°   | 527.0 | 526.5 | 526.1 | 527.4 | 525.2 |
| 162.5° | 537.6 | 536.2 | 535.8 | 538.4 | 536.2 |
| 165°   | 546.8 | 545.5 | 544.6 | 547.3 | 545.5 |
| 167.5° | 554.3 | 552.5 | 552.5 | 555.2 | 552.5 |
| 170°   | 560.5 | 558.3 | 558.7 | 561.4 | 558.3 |
| 172.5° | 564.9 | 563.1 | 563.1 | 566.2 | 563.1 |
| 175°   | 568.8 | 566.6 | 566.2 | 569.3 | 566.2 |
| 177.5° | 570.6 | 568.4 | 568.4 | 571.5 | 568.0 |
| 180°   | 569.7 | 569.7 | 569.7 | 569.7 | 569.7 |

(END OF REPORT)