

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: P1034281

Luminaire Tested: S124RDIW-B795D470UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1034281  
REPORT IS A COMBINATION OF REPORTS P1000855 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIW-B795D470UB30-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Wall Mount with 3000K BioUP LEDs {m-DER=0.589}  
{m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

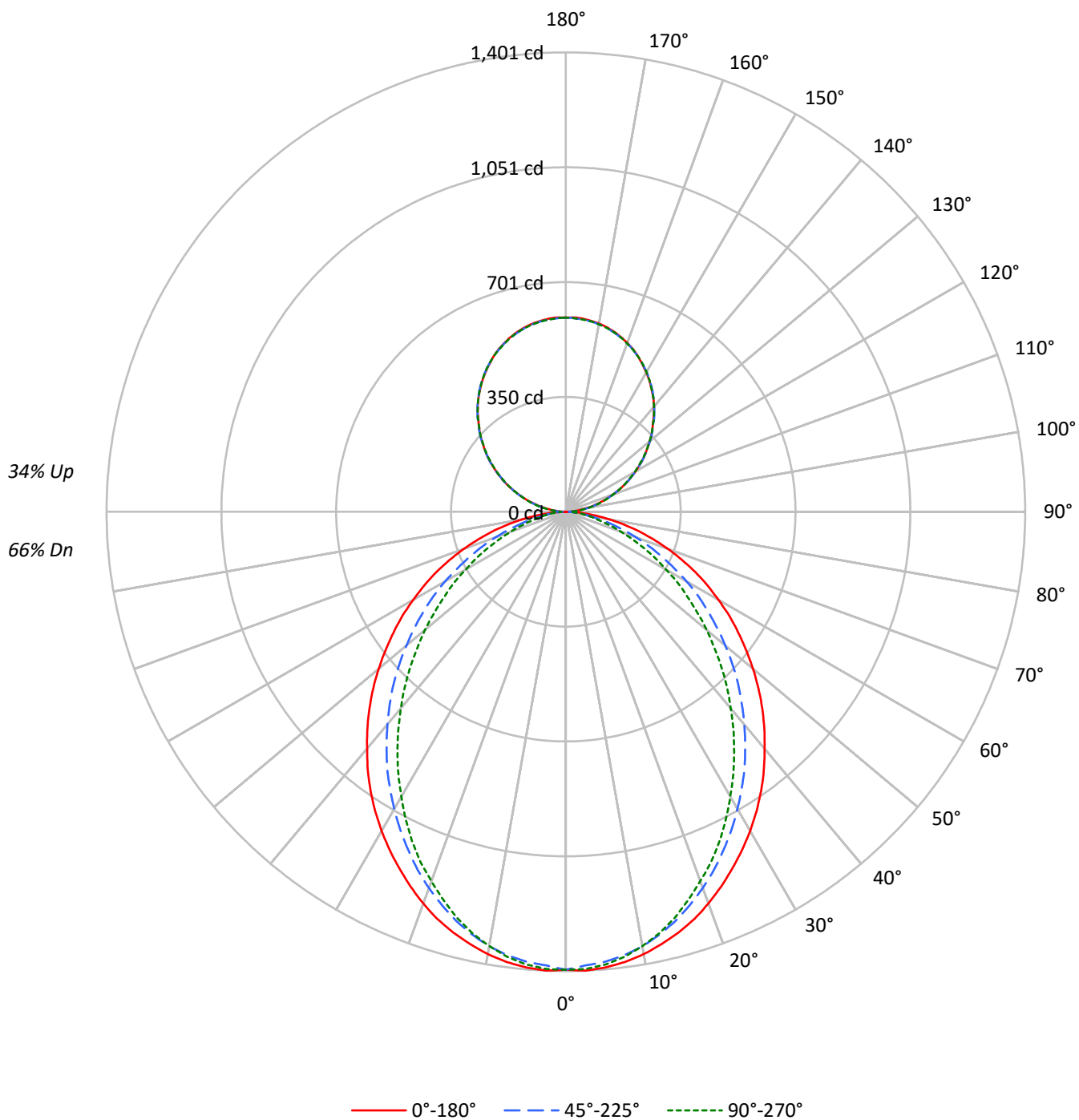
Lumens per Lamp: N/A  
Luminaire Lumens: 4872.0 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |
| 0   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 92 | 92 | 92 | 81 | 81 | 81 | 71 | 71 | 71 |
| 1   | 102 | 98  | 94  | 90  | 96  | 92  | 89  | 86  | 82 | 79 | 77 | 72 | 70 | 69 | 63 | 62 | 61 |
| 2   | 93  | 86  | 79  | 74  | 87  | 81  | 75  | 71  | 72 | 68 | 64 | 64 | 61 | 58 | 56 | 54 | 52 |
| 3   | 85  | 76  | 68  | 62  | 80  | 71  | 65  | 60  | 64 | 59 | 54 | 57 | 53 | 49 | 50 | 47 | 44 |
| 4   | 78  | 67  | 59  | 53  | 73  | 64  | 56  | 51  | 57 | 51 | 47 | 51 | 46 | 43 | 45 | 41 | 39 |
| 5   | 72  | 60  | 52  | 46  | 67  | 57  | 50  | 44  | 51 | 45 | 41 | 46 | 41 | 37 | 41 | 37 | 34 |
| 6   | 66  | 54  | 46  | 40  | 62  | 51  | 44  | 39  | 46 | 40 | 36 | 42 | 37 | 33 | 37 | 33 | 30 |
| 7   | 61  | 49  | 41  | 35  | 58  | 47  | 39  | 34  | 42 | 36 | 32 | 38 | 33 | 29 | 34 | 30 | 27 |
| 8   | 57  | 45  | 37  | 31  | 54  | 43  | 35  | 30  | 39 | 33 | 28 | 35 | 30 | 26 | 31 | 27 | 24 |
| 9   | 53  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 35 | 30 | 25 | 32 | 27 | 24 | 29 | 25 | 22 |
| 10  | 50  | 38  | 30  | 26  | 47  | 36  | 29  | 25  | 33 | 27 | 23 | 30 | 25 | 21 | 27 | 23 | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11389 | 11389 | 11389 |
| 5°  | 11390 | 11051 | 11051 |
| 10° | 11293 | 10702 | 10574 |
| 15° | 11138 | 10267 | 10012 |
| 20° | 10934 | 9772  | 9370  |
| 25° | 10681 | 9238  | 8742  |
| 30° | 10432 | 8693  | 8039  |
| 35° | 10159 | 8142  | 7351  |
| 40° | 9834  | 7546  | 6644  |
| 45° | 9528  | 6957  | 5944  |
| 50° | 9183  | 6313  | 5232  |
| 55° | 8807  | 5653  | 4499  |
| 60° | 8391  | 4952  | 3774  |
| 65° | 7990  | 4148  | 3077  |
| 70° | 7420  | 3301  | 2351  |
| 75° | 6689  | 2401  | 1644  |
| 80° | 5585  | 1474  | 1182  |
| 85° | 4199  | 851   | 650   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9528 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.3  | 2.7       |
| 10°-20°   | 366.2  | 7.5       |
| 20°-30°   | 528.7  | 10.9      |
| 30°-40°   | 599.1  | 12.3      |
| 40°-50°   | 578.5  | 11.9      |
| 50°-60°   | 480.9  | 9.9       |
| 60°-70°   | 331.9  | 6.8       |
| 70°-80°   | 167.7  | 3.4       |
| 80°-90°   | 43.9   | 0.9       |
| 90°-100°  | 38.6   | 0.8       |
| 100°-110° | 115.7  | 2.4       |
| 110°-120° | 196.5  | 4.0       |
| 120°-130° | 259.1  | 5.3       |
| 130°-140° | 291.1  | 6.0       |
| 140°-150° | 286.1  | 5.9       |
| 150°-160° | 240.6  | 4.9       |
| 160°-170° | 160.1  | 3.3       |
| 170°-180° | 56.1   | 1.2       |
| 0°-30°    | 1026.2 | 21.1      |
| 0°-40°    | 1625.3 | 33.4      |
| 0°-60°    | 2684.7 | 55.1      |
| 0°-90°    | 3228.3 | 66.3      |
| 90°-120°  | 350.7  | 7.2       |
| 90°-150°  | 1187.0 | 24.4      |
| 90°-180°  | 1644.0 | 33.7      |
| 0°-180°   | 4872.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1397 | 1397  | 1397 | 1397  | 1397 |      |
| 5°   | 1394 | 1390  | 1377 | 1388  | 1386 | 132  |
| 15°  | 1328 | 1318  | 1292 | 1290  | 1282 | 374  |
| 25°  | 1201 | 1182  | 1138 | 1120  | 1109 | 553  |
| 35°  | 1038 | 1004  | 951  | 914   | 895  | 649  |
| 45°  | 847  | 807   | 743  | 691   | 672  | 653  |
| 55°  | 642  | 599   | 529  | 474   | 453  | 574  |
| 65°  | 436  | 390   | 322  | 276   | 263  | 431  |
| 75°  | 232  | 192   | 142  | 118   | 111  | 245  |
| 85°  | 58   | 36    | 33   | 31    | 31   | 63   |
| 90°  | 1    | 6     | 10   | 13    | 14   | 5    |
| 95°  | 28   | 32    | 35   | 36    | 36   | 30   |
| 105° | 107  | 107   | 109  | 110   | 112  | 113  |
| 115° | 200  | 200   | 199  | 198   | 198  | 197  |
| 125° | 291  | 291   | 290  | 290   | 289  | 259  |
| 135° | 375  | 378   | 378  | 377   | 376  | 290  |
| 145° | 456  | 458   | 458  | 458   | 456  | 285  |
| 155° | 522  | 522   | 522  | 524   | 522  | 240  |
| 165° | 569  | 567   | 566  | 569   | 567  | 160  |
| 175° | 592  | 589   | 589  | 592   | 589  | 56   |
| 180° | 592  | 592   | 592  | 592   | 592  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1396.6 | 1396.6 | 1396.6 | 1396.6 | 1396.6 |
| 2.5°   | 1400.9 | 1396.6 | 1384.8 | 1396.6 | 1395.5 |
| 5°     | 1394.5 | 1390.2 | 1377.4 | 1388.0 | 1385.9 |
| 7.5°   | 1384.8 | 1380.6 | 1364.5 | 1372.0 | 1368.8 |
| 10°    | 1369.9 | 1364.5 | 1345.3 | 1349.6 | 1345.3 |
| 12.5°  | 1350.6 | 1344.2 | 1320.7 | 1322.8 | 1316.4 |
| 15°    | 1328.2 | 1318.5 | 1291.8 | 1289.7 | 1282.2 |
| 17.5°  | 1302.5 | 1288.6 | 1257.6 | 1252.2 | 1241.5 |
| 20°    | 1271.5 | 1257.6 | 1221.2 | 1212.7 | 1198.8 |
| 22.5°  | 1237.3 | 1221.2 | 1181.7 | 1167.8 | 1157.1 |
| 25°    | 1200.9 | 1181.7 | 1137.8 | 1119.6 | 1108.9 |
| 27.5°  | 1163.5 | 1140.0 | 1094.0 | 1072.6 | 1057.6 |
| 30°    | 1123.9 | 1097.2 | 1046.9 | 1020.2 | 1003.1 |
| 32.5°  | 1082.2 | 1051.2 | 998.8  | 966.7  | 950.7  |
| 35°    | 1038.4 | 1004.1 | 950.7  | 914.3  | 895.1  |
| 37.5°  | 992.4  | 957.1  | 898.3  | 858.7  | 839.5  |
| 40°    | 943.2  | 907.9  | 846.9  | 802.0  | 782.8  |
| 42.5°  | 896.1  | 858.7  | 794.5  | 748.6  | 728.2  |
| 45°    | 846.9  | 807.4  | 743.2  | 690.8  | 671.6  |
| 47.5°  | 796.7  | 756.0  | 689.7  | 635.2  | 613.8  |
| 50°    | 745.4  | 703.6  | 635.2  | 581.7  | 561.4  |
| 52.5°  | 693.0  | 652.3  | 581.7  | 527.2  | 505.8  |
| 55°    | 641.6  | 598.8  | 529.3  | 473.7  | 453.4  |
| 57.5°  | 591.4  | 546.5  | 478.0  | 421.3  | 406.4  |
| 60°    | 536.8  | 494.1  | 425.6  | 370.0  | 352.9  |
| 62.5°  | 487.6  | 442.7  | 372.1  | 321.9  | 309.0  |
| 65°    | 436.3  | 390.3  | 321.9  | 275.9  | 263.1  |
| 67.5°  | 382.8  | 339.0  | 274.8  | 234.2  | 219.2  |
| 70°    | 332.6  | 287.7  | 226.7  | 191.4  | 180.7  |
| 72.5°  | 279.1  | 239.5  | 182.9  | 154.0  | 144.4  |
| 75°    | 232.1  | 192.5  | 142.2  | 117.6  | 111.2  |
| 77.5°  | 182.9  | 148.6  | 105.9  | 88.8   | 86.6   |
| 80°    | 135.8  | 104.8  | 72.7   | 69.5   | 68.4   |
| 82.5°  | 95.2   | 67.4   | 52.4   | 50.3   | 49.2   |
| 85°    | 57.7   | 36.4   | 33.2   | 31.0   | 31.0   |
| 87.5°  | 24.6   | 16.0   | 15.0   | 13.9   | 15.0   |
| 90°    | 1.4    | 6.4    | 10.1   | 12.8   | 13.7   |
| 92.5°  | 11.9   | 17.9   | 20.2   | 21.5   | 22.0   |
| 95°    | 27.5   | 31.6   | 34.8   | 36.2   | 36.2   |
| 97.5°  | 44.0   | 47.6   | 51.3   | 53.1   | 53.1   |
| 100°   | 64.1   | 66.0   | 70.1   | 71.0   | 71.0   |
| 102.5° | 85.2   | 85.7   | 89.3   | 90.7   | 91.2   |
| 105°   | 106.8  | 107.2  | 109.0  | 110.4  | 111.8  |
| 107.5° | 129.2  | 129.7  | 130.1  | 132.0  | 131.5  |
| 110°   | 152.1  | 153.0  | 152.6  | 151.7  | 153.0  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 175.9 | 175.9 | 175.0 | 175.0 | 175.0 |
| 115°   | 199.8 | 199.8 | 198.8 | 198.4 | 197.9 |
| 117.5° | 222.2 | 222.2 | 221.8 | 220.4 | 219.0 |
| 120°   | 244.7 | 246.5 | 245.1 | 242.8 | 243.7 |
| 122.5° | 268.0 | 268.5 | 268.0 | 266.7 | 264.4 |
| 125°   | 290.9 | 290.9 | 290.5 | 289.6 | 288.6 |
| 127.5° | 311.6 | 312.9 | 312.0 | 311.1 | 310.6 |
| 130°   | 333.5 | 334.9 | 334.9 | 334.0 | 332.2 |
| 132.5° | 356.0 | 356.9 | 356.5 | 355.5 | 355.1 |
| 135°   | 375.2 | 378.0 | 378.0 | 377.1 | 375.7 |
| 137.5° | 396.8 | 398.2 | 399.1 | 397.7 | 398.2 |
| 140°   | 418.3 | 419.2 | 419.2 | 418.8 | 418.3 |
| 142.5° | 438.0 | 438.9 | 438.5 | 438.5 | 438.5 |
| 145°   | 455.9 | 457.7 | 458.2 | 457.7 | 456.3 |
| 147.5° | 474.2 | 476.5 | 476.0 | 475.6 | 475.1 |
| 150°   | 490.7 | 492.5 | 492.5 | 492.5 | 492.1 |
| 152.5° | 506.3 | 507.2 | 507.7 | 509.0 | 507.7 |
| 155°   | 522.3 | 522.3 | 521.9 | 523.7 | 521.9 |
| 157.5° | 536.1 | 535.1 | 535.1 | 536.5 | 535.1 |
| 160°   | 548.0 | 547.5 | 547.1 | 548.4 | 546.1 |
| 162.5° | 559.0 | 557.6 | 557.1 | 559.9 | 557.6 |
| 165°   | 568.6 | 567.2 | 566.3 | 569.0 | 567.2 |
| 167.5° | 576.4 | 574.5 | 574.5 | 577.3 | 574.5 |
| 170°   | 582.8 | 580.5 | 581.0 | 583.7 | 580.5 |
| 172.5° | 587.4 | 585.5 | 585.5 | 588.7 | 585.5 |
| 175°   | 591.5 | 589.2 | 588.7 | 592.0 | 588.7 |
| 177.5° | 593.3 | 591.0 | 591.0 | 594.2 | 590.6 |
| 180°   | 592.4 | 592.4 | 592.4 | 592.4 | 592.4 |

(END OF REPORT)