

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: P1026276

Luminaire Tested: S124RDIP-B350D1205UB35-4F0-XX-W2A-F4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026276  
REPORT IS A COMBINATION OF REPORTS P999286 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B350D1205UB35-4F0-XX-W2A-F4  
Description: Define 4 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

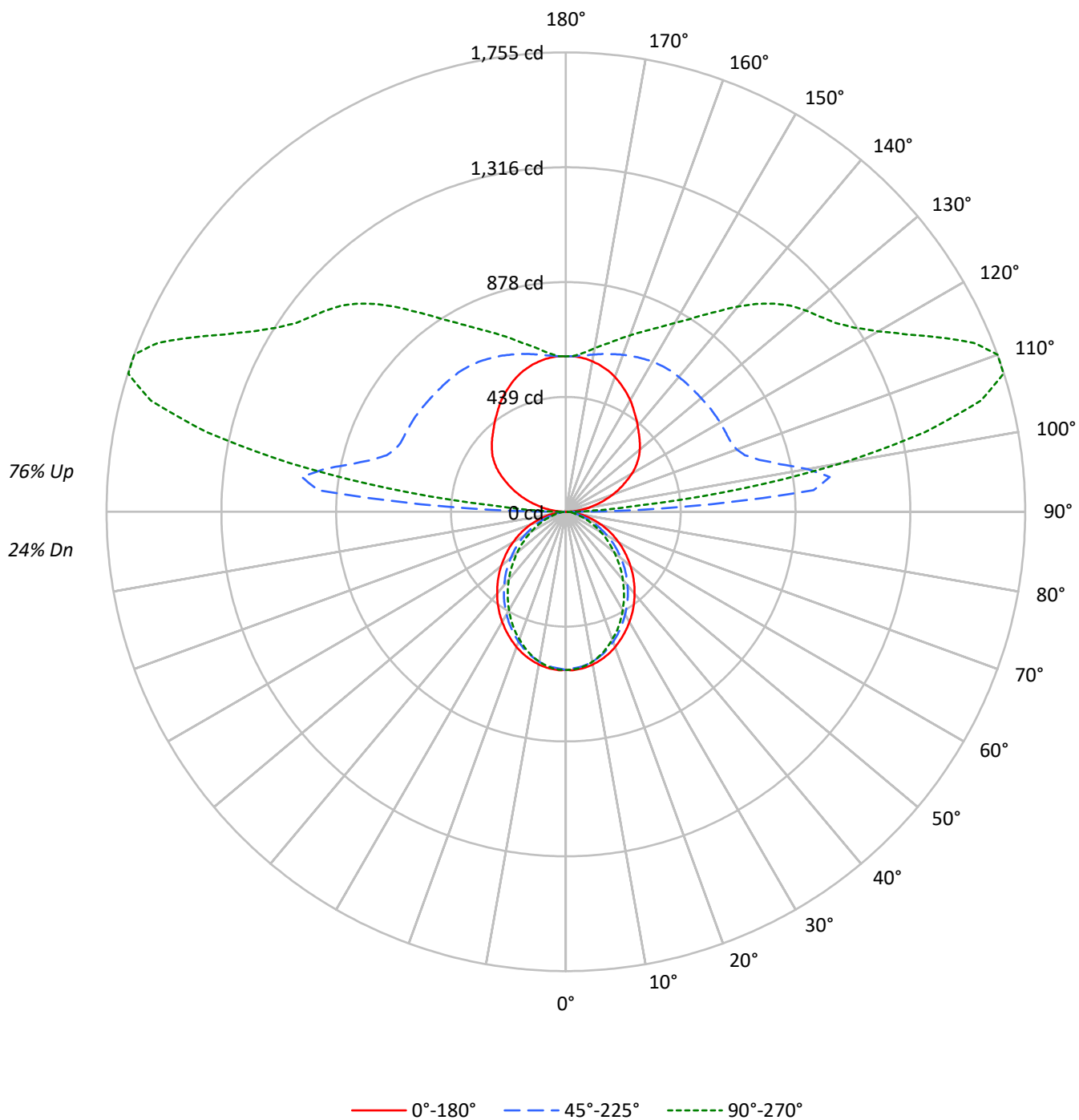
Lumens per Lamp: N/A  
Luminaire Lumens: 5730.6 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 48  
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   | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 69 | 69 | 69 | 50 | 50 | 50 | 33 | 33 | 33 |
| 1   | 92  | 88  | 84  | 81  | 82 | 79 | 75 | 73 | 61 | 59 | 57 | 44 | 43 | 42 | 29 | 28 | 28 |
| 2   | 84  | 77  | 71  | 66  | 75 | 69 | 64 | 60 | 53 | 50 | 47 | 39 | 37 | 35 | 26 | 25 | 24 |
| 3   | 77  | 68  | 61  | 55  | 68 | 61 | 55 | 50 | 47 | 43 | 40 | 34 | 32 | 30 | 23 | 21 | 20 |
| 4   | 70  | 60  | 52  | 47  | 62 | 54 | 47 | 42 | 42 | 37 | 34 | 31 | 28 | 25 | 20 | 19 | 17 |
| 5   | 64  | 53  | 46  | 40  | 57 | 48 | 41 | 36 | 37 | 33 | 29 | 27 | 24 | 22 | 18 | 17 | 15 |
| 6   | 59  | 48  | 40  | 34  | 52 | 43 | 36 | 31 | 33 | 29 | 25 | 25 | 22 | 19 | 17 | 15 | 13 |
| 7   | 54  | 43  | 35  | 30  | 48 | 38 | 32 | 27 | 30 | 26 | 22 | 23 | 19 | 17 | 15 | 13 | 12 |
| 8   | 50  | 39  | 31  | 26  | 45 | 35 | 28 | 24 | 27 | 23 | 20 | 21 | 17 | 15 | 14 | 12 | 11 |
| 9   | 47  | 35  | 28  | 23  | 42 | 32 | 26 | 21 | 25 | 21 | 17 | 19 | 16 | 13 | 13 | 11 | 10 |
| 10  | 44  | 32  | 25  | 21  | 39 | 29 | 23 | 19 | 23 | 19 | 16 | 17 | 14 | 12 | 12 | 10 | 9  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4927 | 4927 | 4927 |
| 5°  | 4927 | 4780 | 4781 |
| 10° | 4885 | 4630 | 4575 |
| 15° | 4819 | 4441 | 4331 |
| 20° | 4730 | 4228 | 4053 |
| 25° | 4620 | 3996 | 3782 |
| 30° | 4513 | 3761 | 3477 |
| 35° | 4395 | 3522 | 3180 |
| 40° | 4254 | 3265 | 2874 |
| 45° | 4122 | 3010 | 2571 |
| 50° | 3972 | 2731 | 2264 |
| 55° | 3811 | 2446 | 1946 |
| 60° | 3630 | 2142 | 1633 |
| 65° | 3456 | 1794 | 1331 |
| 70° | 3210 | 1429 | 1017 |
| 75° | 2893 | 1039 | 711  |
| 80° | 2418 | 639  | 511  |
| 85° | 1819 | 366  | 281  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 4122 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.8   | 1.0       |
| 10°-20°   | 158.4  | 2.8       |
| 20°-30°   | 228.7  | 4.0       |
| 30°-40°   | 259.2  | 4.5       |
| 40°-50°   | 250.3  | 4.4       |
| 50°-60°   | 208.1  | 3.6       |
| 60°-70°   | 143.6  | 2.5       |
| 70°-80°   | 72.6   | 1.3       |
| 80°-90°   | 20.7   | 0.4       |
| 90°-100°  | 441.0  | 7.7       |
| 100°-110° | 896.9  | 15.7      |
| 110°-120° | 799.4  | 13.9      |
| 120°-130° | 671.5  | 11.7      |
| 130°-140° | 560.4  | 9.8       |
| 140°-150° | 428.0  | 7.5       |
| 150°-160° | 300.8  | 5.2       |
| 160°-170° | 176.9  | 3.1       |
| 170°-180° | 57.5   | 1.0       |
| 0°-30°    | 443.9  | 7.7       |
| 0°-40°    | 703.1  | 12.3      |
| 0°-60°    | 1161.4 | 20.3      |
| 0°-90°    | 1398.3 | 24.4      |
| 90°-120°  | 2137.3 | 37.3      |
| 90°-150°  | 3797.1 | 66.3      |
| 90°-180°  | 4332.0 | 75.6      |
| 0°-180°   | 5730.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 604 | 604   | 604 | 604   | 604  |      |
| 5°   | 603 | 601   | 596 | 600   | 600  | 57   |
| 15°  | 575 | 570   | 559 | 558   | 555  | 162  |
| 25°  | 520 | 511   | 492 | 484   | 480  | 239  |
| 35°  | 449 | 434   | 411 | 396   | 387  | 281  |
| 45°  | 366 | 349   | 322 | 299   | 290  | 283  |
| 55°  | 278 | 259   | 229 | 205   | 196  | 248  |
| 65°  | 189 | 169   | 139 | 119   | 114  | 186  |
| 75°  | 100 | 83    | 62  | 51    | 48   | 106  |
| 85°  | 25  | 16    | 14  | 13    | 13   | 27   |
| 90°  | 1   | 9     | 21  | 23    | 24   | 4    |
| 95°  | 38  | 121   | 950 | 471   | 285  | 42   |
| 105° | 136 | 198   | 765 | 1647  | 1641 | 145  |
| 115° | 240 | 301   | 682 | 1311  | 1576 | 238  |
| 125° | 335 | 398   | 679 | 1116  | 1257 | 298  |
| 135° | 398 | 474   | 673 | 990   | 1124 | 307  |
| 145° | 458 | 525   | 670 | 835   | 918  | 288  |
| 155° | 521 | 563   | 651 | 737   | 769  | 240  |
| 165° | 568 | 586   | 624 | 661   | 671  | 160  |
| 175° | 592 | 594   | 598 | 606   | 604  | 56   |
| 180° | 594 | 594   | 594 | 594   | 594  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°    | 67.5°  | 90°    |
|--------|-------|-------|--------|--------|--------|
| 0°     | 604.2 | 604.2 | 604.2  | 604.2  | 604.2  |
| 2.5°   | 606.0 | 604.2 | 599.1  | 604.2  | 603.7  |
| 5°     | 603.2 | 601.4 | 595.8  | 600.5  | 599.5  |
| 7.5°   | 599.1 | 597.2 | 590.3  | 593.5  | 592.1  |
| 10°    | 592.6 | 590.3 | 582.0  | 583.8  | 582.0  |
| 12.5°  | 584.3 | 581.5 | 571.3  | 572.3  | 569.5  |
| 15°    | 574.6 | 570.4 | 558.8  | 557.9  | 554.7  |
| 17.5°  | 563.5 | 557.4 | 544.0  | 541.7  | 537.1  |
| 20°    | 550.0 | 544.0 | 528.3  | 524.6  | 518.6  |
| 22.5°  | 535.2 | 528.3 | 511.2  | 505.2  | 500.5  |
| 25°    | 519.5 | 511.2 | 492.2  | 484.4  | 479.7  |
| 27.5°  | 503.3 | 493.1 | 473.3  | 464.0  | 457.5  |
| 30°    | 486.2 | 474.6 | 452.9  | 441.3  | 433.9  |
| 32.5°  | 468.2 | 454.7 | 432.1  | 418.2  | 411.3  |
| 35°    | 449.2 | 434.4 | 411.3  | 395.5  | 387.2  |
| 37.5°  | 429.3 | 414.0 | 388.6  | 371.5  | 363.1  |
| 40°    | 408.0 | 392.8 | 366.4  | 347.0  | 338.6  |
| 42.5°  | 387.7 | 371.5 | 343.7  | 323.8  | 315.0  |
| 45°    | 366.4 | 349.3 | 321.5  | 298.8  | 290.5  |
| 47.5°  | 344.6 | 327.1 | 298.4  | 274.8  | 265.5  |
| 50°    | 322.4 | 304.4 | 274.8  | 251.7  | 242.9  |
| 52.5°  | 299.8 | 282.2 | 251.7  | 228.1  | 218.8  |
| 55°    | 277.6 | 259.1 | 229.0  | 204.9  | 196.1  |
| 57.5°  | 255.8 | 236.4 | 206.8  | 182.3  | 175.8  |
| 60°    | 232.2 | 213.7 | 184.1  | 160.1  | 152.7  |
| 62.5°  | 211.0 | 191.5 | 161.0  | 139.2  | 133.7  |
| 65°    | 188.7 | 168.9 | 139.2  | 119.4  | 113.8  |
| 67.5°  | 165.6 | 146.6 | 118.9  | 101.3  | 94.8   |
| 70°    | 143.9 | 124.4 | 98.1   | 82.8   | 78.2   |
| 72.5°  | 120.7 | 103.6 | 79.1   | 66.6   | 62.5   |
| 75°    | 100.4 | 83.3  | 61.5   | 50.9   | 48.1   |
| 77.5°  | 79.1  | 64.3  | 45.8   | 38.4   | 37.5   |
| 80°    | 58.8  | 45.3  | 31.5   | 30.1   | 29.6   |
| 82.5°  | 41.2  | 29.1  | 22.7   | 21.7   | 21.3   |
| 85°    | 25.0  | 15.7  | 14.3   | 13.4   | 13.4   |
| 87.5°  | 10.6  | 6.9   | 6.5    | 6.0    | 6.5    |
| 90°    | 1.2   | 9.3   | 21.0   | 23.3   | 24.5   |
| 92.5°  | 16.3  | 89.8  | 457.2  | 151.0  | 106.1  |
| 95°    | 38.5  | 121.3 | 950.5  | 470.6  | 284.6  |
| 97.5°  | 64.1  | 134.1 | 1017.0 | 961.0  | 683.4  |
| 100°   | 88.6  | 151.6 | 937.7  | 1329.6 | 1069.5 |
| 102.5° | 112.0 | 172.6 | 838.6  | 1560.5 | 1405.4 |
| 105°   | 136.5 | 197.7 | 765.1  | 1647.4 | 1641.0 |
| 107.5° | 163.3 | 223.4 | 717.3  | 1621.2 | 1752.9 |
| 110°   | 190.1 | 249.0 | 695.1  | 1527.8 | 1755.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 215.8 | 274.6 | 684.6 | 1413.6 | 1686.5 |
| 115°   | 240.3 | 301.4 | 682.3 | 1310.9 | 1575.7 |
| 117.5° | 265.9 | 326.5 | 681.1 | 1230.4 | 1467.2 |
| 120°   | 291.6 | 351.0 | 681.1 | 1176.2 | 1378.6 |
| 122.5° | 314.9 | 375.0 | 680.0 | 1140.6 | 1308.6 |
| 125°   | 334.7 | 397.7 | 678.8 | 1115.6 | 1257.3 |
| 127.5° | 353.4 | 418.7 | 676.5 | 1091.6 | 1224.6 |
| 130°   | 368.5 | 439.1 | 675.3 | 1063.1 | 1196.6 |
| 132.5° | 383.7 | 456.6 | 674.1 | 1029.2 | 1165.1 |
| 135°   | 397.7 | 473.6 | 673.0 | 990.2  | 1124.3 |
| 137.5° | 411.7 | 488.1 | 673.0 | 948.2  | 1076.5 |
| 140°   | 426.9 | 501.5 | 671.8 | 907.4  | 1024.0 |
| 142.5° | 443.2 | 513.8 | 671.8 | 869.5  | 968.0  |
| 145°   | 458.4 | 524.8 | 669.5 | 835.0  | 917.9  |
| 147.5° | 475.8 | 535.4 | 666.0 | 806.5  | 871.2  |
| 150°   | 492.2 | 545.2 | 662.5 | 780.2  | 832.7  |
| 152.5° | 507.3 | 554.6 | 656.6 | 758.1  | 797.7  |
| 155°   | 521.3 | 562.8 | 650.8 | 737.1  | 768.6  |
| 157.5° | 535.3 | 570.3 | 645.0 | 717.2  | 741.8  |
| 160°   | 548.2 | 576.7 | 638.0 | 697.4  | 717.3  |
| 162.5° | 559.8 | 582.0 | 631.0 | 678.2  | 693.9  |
| 165°   | 568.0 | 585.5 | 624.0 | 660.7  | 670.6  |
| 167.5° | 577.3 | 588.4 | 617.0 | 645.6  | 652.0  |
| 170°   | 583.1 | 590.8 | 610.0 | 630.4  | 634.5  |
| 172.5° | 589.0 | 592.4 | 603.0 | 617.0  | 617.0  |
| 175°   | 592.5 | 593.6 | 598.3 | 606.5  | 604.1  |
| 177.5° | 594.8 | 593.6 | 594.8 | 598.9  | 594.8  |
| 180°   | 593.6 | 593.6 | 593.6 | 593.6  | 593.6  |

(END OF REPORT)