

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: P1026364

Luminaire Tested: S124RDIP-B350D810UB35-4F0-XX-W2A-F

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026364  
REPORT IS A COMBINATION OF REPORTS P999404 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B350D810UB35-4F0-XX-W2A-F  
Description: Define 4 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

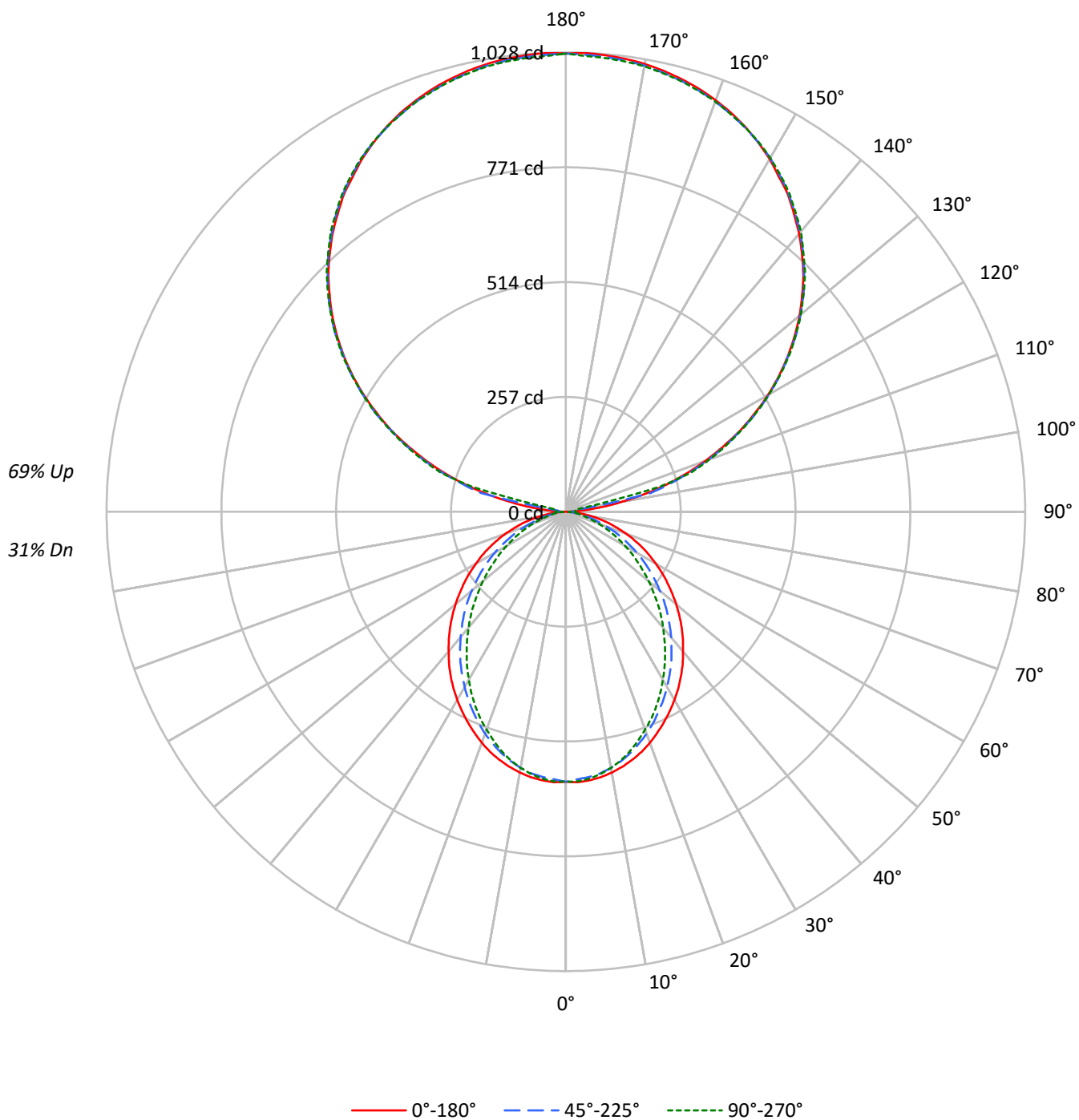
Lumens per Lamp: N/A  
Luminaire Lumens: 4571.0 lumens  
Efficiency: N/A  
Efficacy: 134.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 34.1  
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   | 103 | 103 | 103 | 103 | 92 | 92 | 92 | 92 | 73 | 73 | 73 | 55 | 55 | 55 | 38 | 38 | 38 |
| 1   | 94  | 89  | 86  | 82  | 84 | 81 | 77 | 75 | 64 | 62 | 60 | 48 | 47 | 46 | 34 | 33 | 33 |
| 2   | 85  | 78  | 72  | 68  | 76 | 71 | 66 | 61 | 56 | 53 | 50 | 43 | 40 | 38 | 30 | 29 | 28 |
| 3   | 78  | 69  | 62  | 56  | 70 | 62 | 56 | 51 | 49 | 45 | 42 | 38 | 35 | 33 | 27 | 25 | 24 |
| 4   | 71  | 61  | 53  | 48  | 64 | 55 | 49 | 44 | 44 | 39 | 36 | 34 | 31 | 28 | 24 | 22 | 21 |
| 5   | 65  | 54  | 46  | 41  | 58 | 49 | 42 | 37 | 39 | 34 | 31 | 30 | 27 | 24 | 22 | 20 | 18 |
| 6   | 60  | 49  | 41  | 35  | 54 | 44 | 37 | 32 | 35 | 30 | 27 | 27 | 24 | 21 | 20 | 18 | 16 |
| 7   | 56  | 44  | 36  | 31  | 50 | 40 | 33 | 28 | 32 | 27 | 24 | 25 | 21 | 19 | 18 | 16 | 14 |
| 8   | 51  | 40  | 32  | 27  | 46 | 36 | 30 | 25 | 29 | 24 | 21 | 23 | 19 | 17 | 17 | 14 | 13 |
| 9   | 48  | 36  | 29  | 24  | 43 | 33 | 27 | 22 | 27 | 22 | 19 | 21 | 17 | 15 | 15 | 13 | 11 |
| 10  | 45  | 33  | 26  | 21  | 40 | 30 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 13 | 14 | 12 | 10 |

**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   | 1.2       |
| 10°-20°   | 158.4  | 3.5       |
| 20°-30°   | 228.7  | 5.0       |
| 30°-40°   | 259.2  | 5.7       |
| 40°-50°   | 250.3  | 5.5       |
| 50°-60°   | 208.1  | 4.6       |
| 60°-70°   | 143.6  | 3.1       |
| 70°-80°   | 72.6   | 1.6       |
| 80°-90°   | 20.5   | 0.4       |
| 90°-100°  | 34.0   | 0.7       |
| 100°-110° | 224.1  | 4.9       |
| 110°-120° | 428.0  | 9.4       |
| 120°-130° | 543.4  | 11.9      |
| 130°-140° | 581.3  | 12.7      |
| 140°-150° | 543.6  | 11.9      |
| 150°-160° | 438.3  | 9.6       |
| 160°-170° | 282.7  | 6.2       |
| 170°-180° | 97.4   | 2.1       |
| 0°-30°    | 443.9  | 9.7       |
| 0°-40°    | 703.1  | 15.4      |
| 0°-60°    | 1161.4 | 25.4      |
| 0°-90°    | 1398.1 | 30.6      |
| 90°-120°  | 686.2  | 15.0      |
| 90°-150°  | 2354.4 | 51.5      |
| 90°-180°  | 3173.0 | 69.4      |
| 0°-180°   | 4571.0 | 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°  | 2    | 11    | 17   | 22    | 23   | 4    |
| 95°  | 42   | 16    | 17   | 22    | 22   | 52   |
| 105° | 231  | 235   | 239  | 246   | 219  | 242  |
| 115° | 431  | 433   | 432  | 434   | 434  | 424  |
| 125° | 606  | 609   | 607  | 610   | 610  | 541  |
| 135° | 752  | 751   | 754  | 755   | 757  | 579  |
| 145° | 867  | 869   | 869  | 870   | 871  | 542  |
| 155° | 950  | 951   | 949  | 952   | 950  | 438  |
| 165° | 1002 | 998   | 998  | 1005  | 998  | 283  |
| 175° | 1025 | 1021  | 1022 | 1028  | 1019 | 98   |
| 180° | 1025 | 1025  | 1025 | 1025  | 1025 |      |

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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°    | 2.3   | 10.7  | 16.9  | 21.5  | 23.0  |
| 92.5°  | 11.5  | 10.0  | 16.1  | 20.7  | 20.7  |
| 95°    | 42.2  | 16.1  | 16.9  | 21.5  | 22.2  |
| 97.5°  | 80.5  | 97.4  | 16.9  | 20.7  | 21.5  |
| 100°   | 125.8 | 139.6 | 33.7  | 20.7  | 21.5  |
| 102.5° | 176.4 | 185.6 | 194.8 | 22.2  | 22.2  |
| 105°   | 230.8 | 235.4 | 239.3 | 246.2 | 218.6 |
| 107.5° | 280.7 | 283.0 | 288.4 | 292.2 | 295.3 |
| 110°   | 331.3 | 333.6 | 338.2 | 339.7 | 342.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 380.4  | 385.0  | 386.5  | 385.8  | 388.8  |
| 115°   | 431.0  | 433.3  | 432.5  | 434.1  | 434.1  |
| 117.5° | 476.3  | 479.3  | 481.6  | 480.9  | 480.9  |
| 120°   | 522.3  | 525.3  | 524.6  | 526.1  | 524.6  |
| 122.5° | 565.2  | 566.8  | 568.3  | 569.1  | 567.5  |
| 125°   | 605.9  | 608.9  | 607.4  | 609.7  | 610.5  |
| 127.5° | 645.0  | 645.8  | 649.6  | 648.8  | 648.1  |
| 130°   | 682.6  | 683.3  | 685.6  | 686.4  | 686.4  |
| 132.5° | 717.1  | 718.6  | 721.7  | 722.4  | 721.7  |
| 135°   | 751.6  | 750.8  | 753.9  | 755.4  | 757.0  |
| 137.5° | 782.3  | 782.3  | 786.1  | 787.6  | 786.9  |
| 140°   | 812.2  | 813.7  | 815.2  | 817.5  | 818.3  |
| 142.5° | 839.0  | 842.1  | 842.9  | 844.4  | 844.4  |
| 145°   | 866.6  | 868.9  | 868.9  | 869.7  | 871.2  |
| 147.5° | 888.1  | 892.7  | 891.9  | 892.7  | 893.5  |
| 150°   | 911.9  | 914.9  | 914.2  | 914.2  | 914.9  |
| 152.5° | 931.8  | 934.1  | 932.6  | 934.1  | 933.3  |
| 155°   | 950.2  | 951.0  | 948.7  | 951.8  | 949.5  |
| 157.5° | 966.3  | 966.3  | 963.3  | 967.1  | 963.3  |
| 160°   | 980.1  | 977.8  | 977.1  | 981.7  | 977.1  |
| 162.5° | 992.4  | 989.3  | 988.6  | 993.2  | 987.8  |
| 165°   | 1002.4 | 998.5  | 998.5  | 1004.7 | 997.8  |
| 167.5° | 1010.8 | 1007.0 | 1006.2 | 1013.1 | 1005.4 |
| 170°   | 1017.7 | 1013.1 | 1013.9 | 1020.0 | 1012.3 |
| 172.5° | 1022.3 | 1017.7 | 1018.5 | 1024.6 | 1016.2 |
| 175°   | 1025.4 | 1020.8 | 1021.5 | 1028.4 | 1019.2 |
| 177.5° | 1027.7 | 1022.3 | 1023.8 | 1030.0 | 1020.8 |
| 180°   | 1025.4 | 1025.4 | 1025.4 | 1025.4 | 1025.4 |

(END OF REPORT)