

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: P1025322

Luminaire Tested: S124DIP-B350D1205UB35-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025322  
REPORT IS A COMBINATION OF REPORTS P995817 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B350D1205UB35-4F0-XX-W2A-D4  
Description: Define 4 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

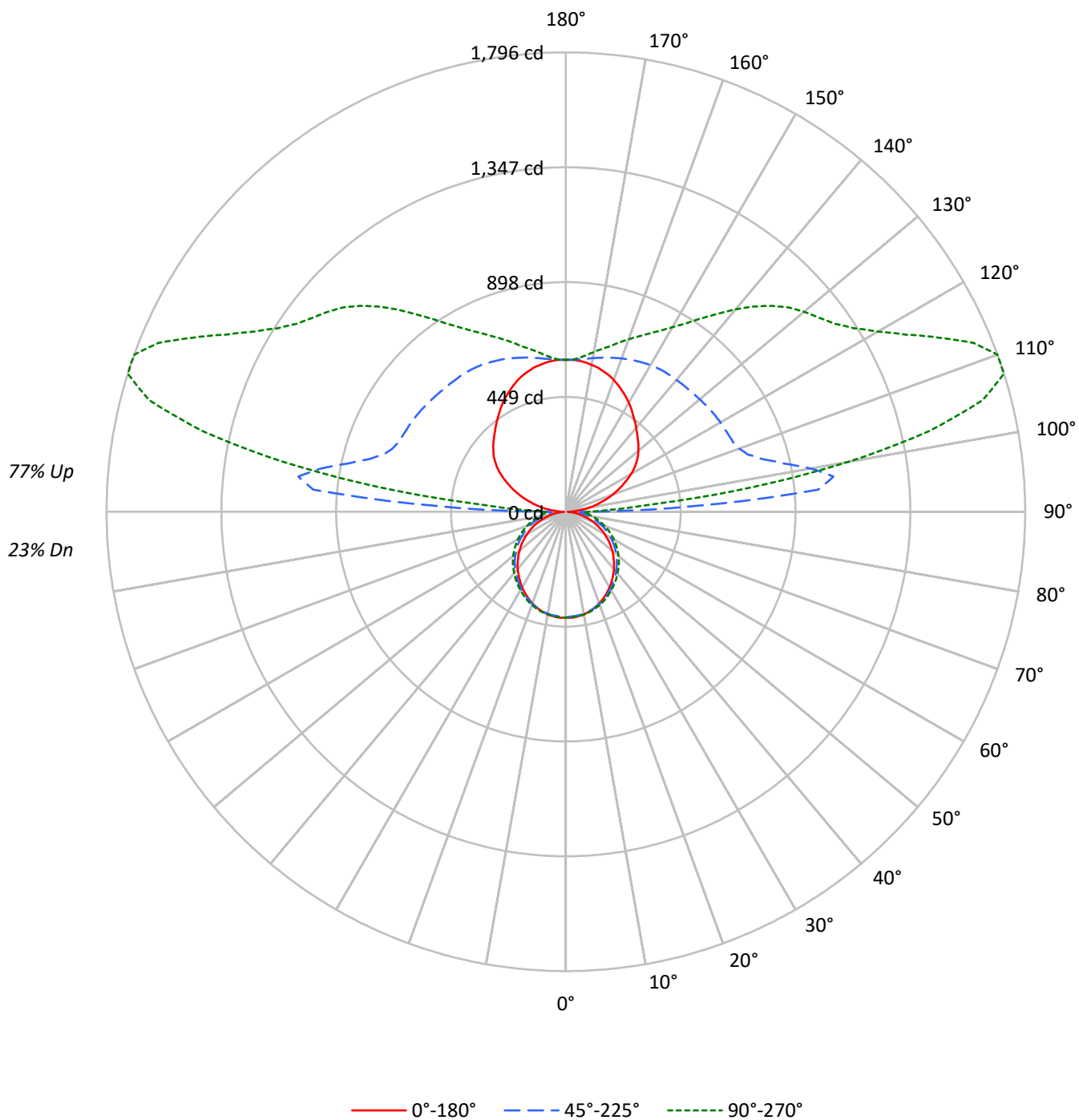
Lumens per Lamp: N/A  
Luminaire Lumens: 5743.7 lumens  
Efficiency: N/A  
Efficacy: 119.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 48  
Input Voltage (V):  
Input Current (A<sub>in</sub>): 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   | 101 | 101 | 101 | 101 | 89 | 89 | 89 | 89 | 68 | 68 | 68 | 49 | 49 | 49 | 31 | 31 | 31 | 31 | 31 | 23 |
| 1   | 91  | 87  | 83  | 79  | 81 | 77 | 74 | 71 | 59 | 57 | 55 | 42 | 41 | 40 | 27 | 26 | 25 | 25 | 25 | 18 |
| 2   | 83  | 76  | 69  | 64  | 73 | 67 | 62 | 58 | 51 | 48 | 45 | 37 | 34 | 33 | 23 | 22 | 21 | 21 | 21 | 15 |
| 3   | 75  | 66  | 59  | 53  | 66 | 59 | 53 | 48 | 45 | 41 | 37 | 32 | 30 | 27 | 20 | 19 | 18 | 18 | 18 | 12 |
| 4   | 69  | 58  | 51  | 45  | 61 | 52 | 45 | 40 | 40 | 35 | 32 | 29 | 26 | 23 | 18 | 16 | 15 | 15 | 15 | 10 |
| 5   | 63  | 52  | 44  | 38  | 55 | 46 | 39 | 34 | 35 | 31 | 27 | 25 | 22 | 20 | 16 | 14 | 13 | 13 | 13 | 9  |
| 6   | 58  | 46  | 38  | 33  | 51 | 41 | 34 | 29 | 32 | 27 | 23 | 23 | 20 | 17 | 15 | 13 | 11 | 11 | 11 | 8  |
| 7   | 53  | 41  | 34  | 28  | 47 | 37 | 30 | 26 | 29 | 24 | 20 | 21 | 17 | 15 | 13 | 11 | 10 | 10 | 10 | 7  |
| 8   | 49  | 37  | 30  | 25  | 44 | 33 | 27 | 22 | 26 | 21 | 18 | 19 | 16 | 13 | 12 | 10 | 9  | 9  | 9  | 6  |
| 9   | 46  | 34  | 27  | 22  | 40 | 30 | 24 | 20 | 24 | 19 | 16 | 17 | 14 | 12 | 11 | 9  | 8  | 8  | 8  | 5  |
| 10  | 43  | 31  | 24  | 19  | 38 | 28 | 22 | 18 | 22 | 17 | 14 | 16 | 13 | 11 | 10 | 8  | 7  | 7  | 7  | 5  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3370 | 3370 | 3370 |
| 5°  | 3379 | 3282 | 3288 |
| 10° | 3358 | 3218 | 3209 |
| 15° | 3326 | 3145 | 3119 |
| 20° | 3279 | 3066 | 3031 |
| 25° | 3227 | 2980 | 2937 |
| 30° | 3170 | 2894 | 2841 |
| 35° | 3106 | 2806 | 2755 |
| 40° | 3054 | 2721 | 2667 |
| 45° | 2978 | 2643 | 2589 |
| 50° | 2913 | 2552 | 2506 |
| 55° | 2846 | 2466 | 2411 |
| 60° | 2742 | 2358 | 2321 |
| 65° | 2628 | 2242 | 2214 |
| 70° | 2488 | 2110 | 2089 |
| 75° | 2294 | 1962 | 1971 |
| 80° | 2073 | 1811 | 1847 |
| 85° | 1783 | 1660 | 1746 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2978 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.2   | 0.7       |
| 10°-20°   | 112.2  | 2.0       |
| 20°-30°   | 169.6  | 3.0       |
| 30°-40°   | 205.2  | 3.6       |
| 40°-50°   | 217.0  | 3.8       |
| 50°-60°   | 204.2  | 3.6       |
| 60°-70°   | 169.4  | 3.0       |
| 70°-80°   | 118.9  | 2.1       |
| 80°-90°   | 69.3   | 1.2       |
| 90°-100°  | 480.9  | 8.4       |
| 100°-110° | 926.4  | 16.1      |
| 110°-120° | 819.2  | 14.3      |
| 120°-130° | 682.7  | 11.9      |
| 130°-140° | 565.2  | 9.8       |
| 140°-150° | 428.9  | 7.5       |
| 150°-160° | 300.8  | 5.2       |
| 160°-170° | 176.9  | 3.1       |
| 170°-180° | 57.5   | 1.0       |
| 0°-30°    | 321.0  | 5.6       |
| 0°-40°    | 526.2  | 9.2       |
| 0°-60°    | 947.4  | 16.5      |
| 0°-90°    | 1305.0 | 22.7      |
| 90°-120°  | 2226.6 | 38.8      |
| 90°-150°  | 3903.4 | 68.0      |
| 90°-180°  | 4439.0 | 77.3      |
| 0°-180°   | 5743.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 413 | 413   | 413 | 413   | 413  |      |
| 5°   | 414 | 412   | 409 | 413   | 412  | 39   |
| 15°  | 397 | 397   | 396 | 400   | 399  | 112  |
| 25°  | 363 | 366   | 367 | 372   | 372  | 167  |
| 35°  | 318 | 323   | 328 | 334   | 336  | 199  |
| 45°  | 265 | 274   | 282 | 290   | 292  | 205  |
| 55°  | 207 | 217   | 231 | 240   | 243  | 185  |
| 65°  | 144 | 158   | 174 | 186   | 189  | 142  |
| 75°  | 80  | 97    | 116 | 129   | 133  | 85   |
| 85°  | 24  | 44    | 65  | 79    | 83   | 26   |
| 90°  | 9   | 35    | 67  | 82    | 87   | 8    |
| 95°  | 44  | 143   | 991 | 523   | 342  | 47   |
| 105° | 141 | 211   | 796 | 1690  | 1687 | 150  |
| 115° | 243 | 308   | 704 | 1343  | 1611 | 241  |
| 125° | 337 | 399   | 692 | 1137  | 1282 | 300  |
| 135° | 399 | 474   | 677 | 1002  | 1139 | 308  |
| 145° | 459 | 525   | 670 | 838   | 922  | 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°     | 413.3 | 413.3 | 413.3  | 413.3  | 413.3  |
| 2.5°   | 415.1 | 413.7 | 410.0  | 413.3  | 412.8  |
| 5°     | 413.7 | 412.3 | 409.1  | 412.8  | 412.3  |
| 7.5°   | 411.0 | 410.0 | 407.3  | 411.4  | 411.0  |
| 10°    | 407.3 | 406.8 | 404.5  | 408.6  | 408.2  |
| 12.5°  | 402.2 | 402.2 | 400.8  | 404.5  | 404.5  |
| 15°    | 396.6 | 397.1 | 395.7  | 399.8  | 399.4  |
| 17.5°  | 389.2 | 390.6 | 390.1  | 394.3  | 393.8  |
| 20°    | 381.3 | 382.7 | 383.2  | 387.8  | 387.8  |
| 22.5°  | 372.5 | 374.4 | 375.3  | 379.9  | 380.9  |
| 25°    | 362.8 | 365.6 | 367.0  | 372.1  | 372.5  |
| 27.5°  | 352.2 | 356.3 | 358.2  | 362.8  | 363.3  |
| 30°    | 341.5 | 345.2 | 348.5  | 353.6  | 354.5  |
| 32.5°  | 330.0 | 334.6 | 338.3  | 344.3  | 345.2  |
| 35°    | 317.5 | 323.0 | 327.7  | 334.1  | 335.5  |
| 37.5°  | 305.0 | 311.5 | 317.0  | 323.5  | 324.9  |
| 40°    | 292.9 | 299.0 | 305.4  | 312.4  | 314.2  |
| 42.5°  | 279.1 | 286.0 | 293.9  | 301.7  | 303.1  |
| 45°    | 264.7 | 273.5 | 282.3  | 290.2  | 292.5  |
| 47.5°  | 251.3 | 260.1 | 270.3  | 278.1  | 280.9  |
| 50°    | 236.5 | 246.7 | 256.8  | 266.1  | 268.9  |
| 52.5°  | 221.7 | 231.9 | 243.9  | 253.1  | 255.9  |
| 55°    | 207.3 | 217.0 | 230.9  | 240.2  | 243.0  |
| 57.5°  | 191.1 | 203.2 | 216.6  | 227.7  | 230.0  |
| 60°    | 175.4 | 187.4 | 202.7  | 213.3  | 217.0  |
| 62.5°  | 160.1 | 173.5 | 188.8  | 199.5  | 203.2  |
| 65°    | 143.5 | 158.3 | 174.0  | 185.6  | 189.3  |
| 67.5°  | 127.7 | 143.5 | 160.1  | 171.7  | 175.4  |
| 70°    | 111.5 | 127.3 | 144.9  | 157.3  | 160.6  |
| 72.5°  | 95.8  | 112.0 | 131.0  | 143.0  | 146.7  |
| 75°    | 79.6  | 96.7  | 116.2  | 129.1  | 133.3  |
| 77.5°  | 64.3  | 82.4  | 102.7  | 115.7  | 120.3  |
| 80°    | 50.4  | 69.0  | 89.3   | 103.2  | 106.9  |
| 82.5°  | 36.6  | 56.0  | 76.4   | 90.7   | 94.9   |
| 85°    | 24.5  | 44.0  | 64.8   | 78.7   | 83.3   |
| 87.5°  | 15.3  | 34.2  | 54.6   | 68.0   | 72.2   |
| 90°    | 8.6   | 35.2  | 66.8   | 82.5   | 87.4   |
| 92.5°  | 23.2  | 112.9 | 500.2  | 207.0  | 165.8  |
| 95°    | 44.5  | 142.6 | 990.8  | 523.4  | 341.5  |
| 97.5°  | 69.7  | 153.1 | 1054.9 | 1011.0 | 737.5  |
| 100°   | 93.7  | 168.8 | 972.9  | 1377.3 | 1120.4 |
| 102.5° | 117.1 | 187.9 | 871.5  | 1605.4 | 1454.0 |
| 105°   | 140.7 | 211.1 | 795.6  | 1689.5 | 1686.8 |
| 107.5° | 167.5 | 235.4 | 745.5  | 1661.0 | 1795.9 |
| 110°   | 193.8 | 259.2 | 721.5  | 1564.8 | 1796.0 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 219.0 | 283.4 | 708.7 | 1447.8 | 1724.4 |
| 115°   | 243.1 | 308.3 | 704.1 | 1342.8 | 1610.9 |
| 117.5° | 268.7 | 332.2 | 700.5 | 1259.6 | 1500.1 |
| 120°   | 293.9 | 354.7 | 698.2 | 1202.6 | 1408.7 |
| 122.5° | 317.2 | 377.2 | 694.8 | 1164.7 | 1335.9 |
| 125°   | 336.6 | 399.1 | 691.8 | 1137.4 | 1281.8 |
| 127.5° | 355.3 | 420.1 | 687.1 | 1110.6 | 1246.8 |
| 130°   | 369.9 | 440.0 | 683.6 | 1079.8 | 1216.0 |
| 132.5° | 385.1 | 457.5 | 680.6 | 1043.6 | 1182.2 |
| 135°   | 398.6 | 474.4 | 677.2 | 1001.8 | 1138.6 |
| 137.5° | 412.6 | 488.6 | 675.3 | 957.5  | 1088.1 |
| 140°   | 427.8 | 502.0 | 672.7 | 914.3  | 1033.3 |
| 142.5° | 443.7 | 514.2 | 671.8 | 874.6  | 974.9  |
| 145°   | 458.9 | 524.8 | 669.5 | 837.8  | 922.5  |
| 147.5° | 476.3 | 535.4 | 666.0 | 807.0  | 873.5  |
| 150°   | 492.7 | 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)