

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: P1025277

Luminaire Tested: S124DIP-B350D1035UB35-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025277  
REPORT IS A COMBINATION OF REPORTS P995757 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B350D1035UB35-4F0-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**

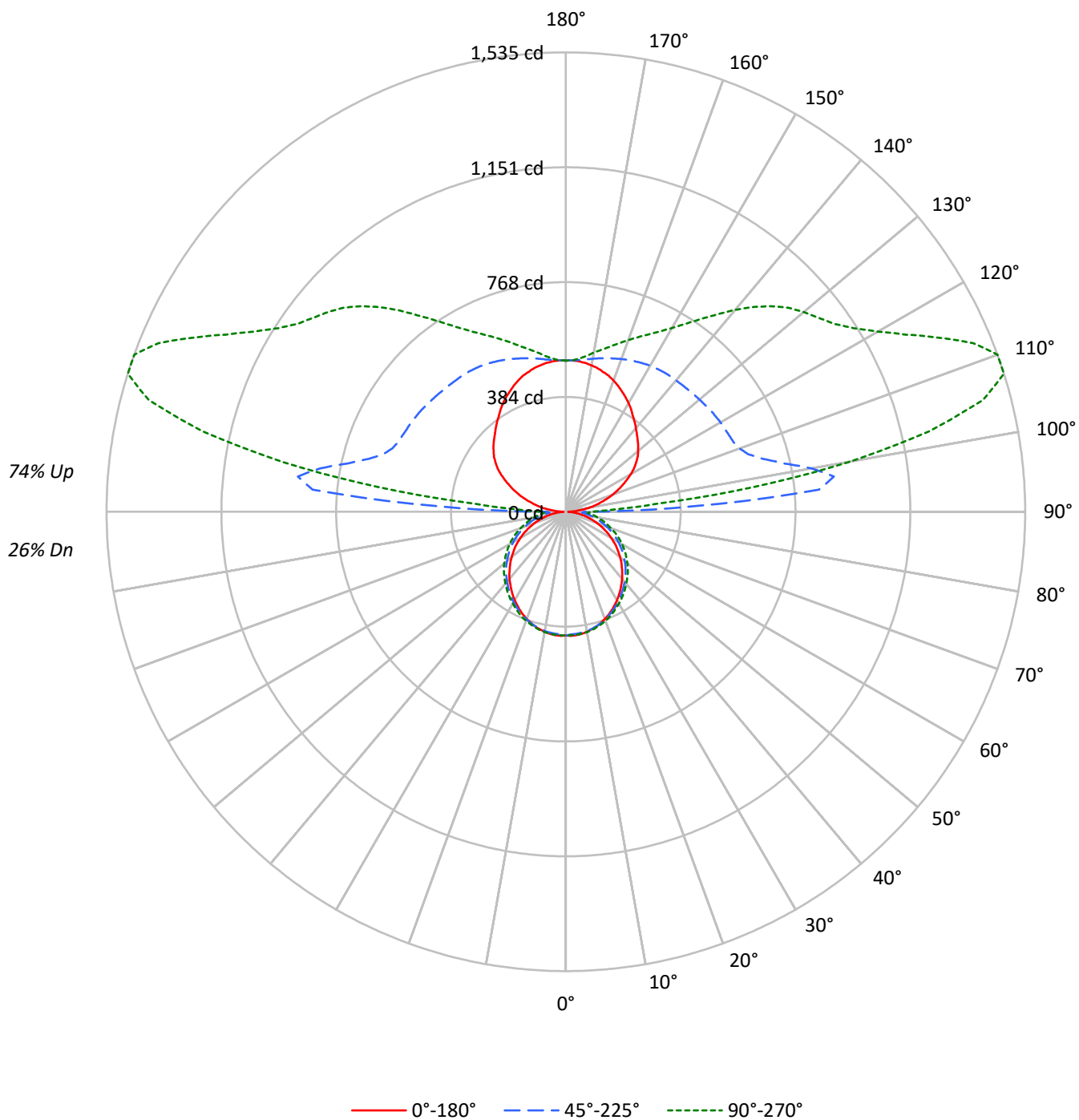
Lumens per Lamp: N/A  
Luminaire Lumens: 5098.4 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 41.5  
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 | 70 | 70 | 70 | 51 | 51 | 51 | 34 | 34 | 34 |
| 1   | 92  | 87  | 83  | 80  | 82 | 78 | 75 | 72 | 60 | 58 | 56 | 44 | 43 | 41 | 29 | 28 | 27 |
| 2   | 83  | 76  | 70  | 65  | 74 | 68 | 63 | 58 | 52 | 49 | 46 | 38 | 36 | 34 | 25 | 24 | 23 |
| 3   | 76  | 67  | 59  | 54  | 67 | 59 | 53 | 48 | 46 | 42 | 38 | 34 | 31 | 28 | 22 | 20 | 19 |
| 4   | 69  | 59  | 51  | 45  | 61 | 52 | 46 | 41 | 41 | 36 | 32 | 30 | 27 | 24 | 20 | 18 | 16 |
| 5   | 63  | 52  | 44  | 38  | 56 | 46 | 40 | 35 | 36 | 31 | 28 | 27 | 23 | 21 | 18 | 16 | 14 |
| 6   | 58  | 46  | 38  | 33  | 52 | 42 | 35 | 30 | 32 | 27 | 24 | 24 | 20 | 18 | 16 | 14 | 12 |
| 7   | 54  | 42  | 34  | 29  | 48 | 37 | 31 | 26 | 29 | 24 | 21 | 22 | 18 | 16 | 14 | 12 | 11 |
| 8   | 50  | 38  | 30  | 25  | 44 | 34 | 27 | 23 | 26 | 22 | 18 | 20 | 16 | 14 | 13 | 11 | 10 |
| 9   | 46  | 34  | 27  | 22  | 41 | 31 | 24 | 20 | 24 | 19 | 16 | 18 | 15 | 12 | 12 | 10 | 9  |
| 10  | 43  | 31  | 24  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 14 | 17 | 13 | 11 | 11 | 9  | 8  |

**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   | 0.8       |
| 10°-20°   | 112.2  | 2.2       |
| 20°-30°   | 169.6  | 3.3       |
| 30°-40°   | 205.2  | 4.0       |
| 40°-50°   | 217.0  | 4.3       |
| 50°-60°   | 204.2  | 4.0       |
| 60°-70°   | 169.4  | 3.3       |
| 70°-80°   | 118.9  | 2.3       |
| 80°-90°   | 69.0   | 1.4       |
| 90°-100°  | 415.2  | 8.1       |
| 100°-110° | 792.9  | 15.6      |
| 110°-120° | 700.2  | 13.7      |
| 120°-130° | 582.7  | 11.4      |
| 130°-140° | 481.8  | 9.4       |
| 140°-150° | 365.2  | 7.2       |
| 150°-160° | 256.0  | 5.0       |
| 160°-170° | 150.6  | 3.0       |
| 170°-180° | 49.0   | 1.0       |
| 0°-30°    | 321.0  | 6.3       |
| 0°-40°    | 526.2  | 10.3      |
| 0°-60°    | 947.4  | 18.6      |
| 0°-90°    | 1304.7 | 25.6      |
| 90°-120°  | 1908.4 | 37.4      |
| 90°-150°  | 3338.1 | 65.5      |
| 90°-180°  | 3794.0 | 74.4      |
| 0°-180°   | 5098.4 | 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°  | 8   | 34    | 64  | 79    | 84   | 7    |
| 95°  | 39  | 125   | 849 | 453   | 299  | 41   |
| 105° | 120 | 182   | 682 | 1444  | 1442 | 128  |
| 115° | 207 | 264   | 602 | 1148  | 1376 | 206  |
| 125° | 287 | 340   | 591 | 971   | 1095 | 256  |
| 135° | 339 | 404   | 577 | 854   | 971  | 262  |
| 145° | 391 | 447   | 570 | 714   | 786  | 245  |
| 155° | 444 | 479   | 554 | 627   | 654  | 205  |
| 165° | 483 | 498   | 531 | 562   | 571  | 137  |
| 175° | 504 | 505   | 509 | 516   | 514  | 48   |
| 180° | 505 | 505   | 505 | 505   | 505  |      |

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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°    | 8.4   | 33.8  | 63.7  | 79.1   | 83.7   |
| 92.5°  | 20.8  | 99.5  | 432.1 | 184.6  | 150.0  |
| 95°    | 38.8  | 124.6 | 849.3 | 453.4  | 299.1  |
| 97.5°  | 60.2  | 133.2 | 903.5 | 868.0  | 635.8  |
| 100°   | 80.5  | 146.2 | 833.3 | 1179.4 | 961.2  |
| 102.5° | 100.4 | 162.2 | 746.6 | 1373.1 | 1244.8 |
| 105°   | 120.3 | 181.7 | 681.7 | 1444.2 | 1442.5 |
| 107.5° | 143.2 | 202.1 | 638.7 | 1419.6 | 1535.0 |
| 110°   | 165.5 | 222.1 | 618.0 | 1337.4 | 1534.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 186.8 | 242.6 | 606.8 | 1237.3 | 1473.3 |
| 115°   | 207.3 | 263.5 | 602.5 | 1147.6 | 1376.3 |
| 117.5° | 229.1 | 283.6 | 599.1 | 1076.5 | 1281.7 |
| 120°   | 250.5 | 302.5 | 596.8 | 1027.6 | 1203.4 |
| 122.5° | 270.3 | 321.4 | 593.5 | 995.0  | 1141.1 |
| 125°   | 286.8 | 339.9 | 590.7 | 971.3  | 1094.6 |
| 127.5° | 302.7 | 357.8 | 586.4 | 948.2  | 1064.5 |
| 130°   | 315.1 | 374.6 | 583.1 | 921.5  | 1037.9 |
| 132.5° | 328.0 | 389.5 | 580.3 | 890.3  | 1008.8 |
| 135°   | 339.4 | 403.9 | 577.0 | 854.4  | 971.2  |
| 137.5° | 351.3 | 415.9 | 575.1 | 816.3  | 927.8  |
| 140°   | 364.2 | 427.4 | 572.7 | 779.2  | 880.9  |
| 142.5° | 377.7 | 437.8 | 571.8 | 745.2  | 830.8  |
| 145°   | 390.6 | 446.7 | 569.8 | 713.6  | 785.8  |
| 147.5° | 405.5 | 455.6 | 566.8 | 686.9  | 743.8  |
| 150°   | 419.4 | 464.0 | 563.8 | 664.1  | 708.8  |
| 152.5° | 431.8 | 472.0 | 558.9 | 645.2  | 679.0  |
| 155°   | 443.7 | 479.0 | 553.9 | 627.3  | 654.2  |
| 157.5° | 455.6 | 485.4 | 548.9 | 610.5  | 631.3  |
| 160°   | 466.6 | 490.8 | 543.0 | 593.6  | 610.5  |
| 162.5° | 476.5 | 495.4 | 537.0 | 577.2  | 590.6  |
| 165°   | 483.4 | 498.3 | 531.1 | 562.3  | 570.8  |
| 167.5° | 491.4 | 500.8 | 525.1 | 549.4  | 554.9  |
| 170°   | 496.3 | 502.8 | 519.2 | 536.6  | 540.0  |
| 172.5° | 501.3 | 504.3 | 513.2 | 525.1  | 525.1  |
| 175°   | 504.3 | 505.3 | 509.2 | 516.2  | 514.2  |
| 177.5° | 506.3 | 505.3 | 506.3 | 509.7  | 506.3  |
| 180°   | 505.3 | 505.3 | 505.3 | 505.3  | 505.3  |

(END OF REPORT)