

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: P1025268

Luminaire Tested: S124DIP-B350D1035UB30-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025268  
REPORT IS A COMBINATION OF REPORTS P995748 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B350D1035UB30-4F0-XX-W2A-D4  
Description: Define 4 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

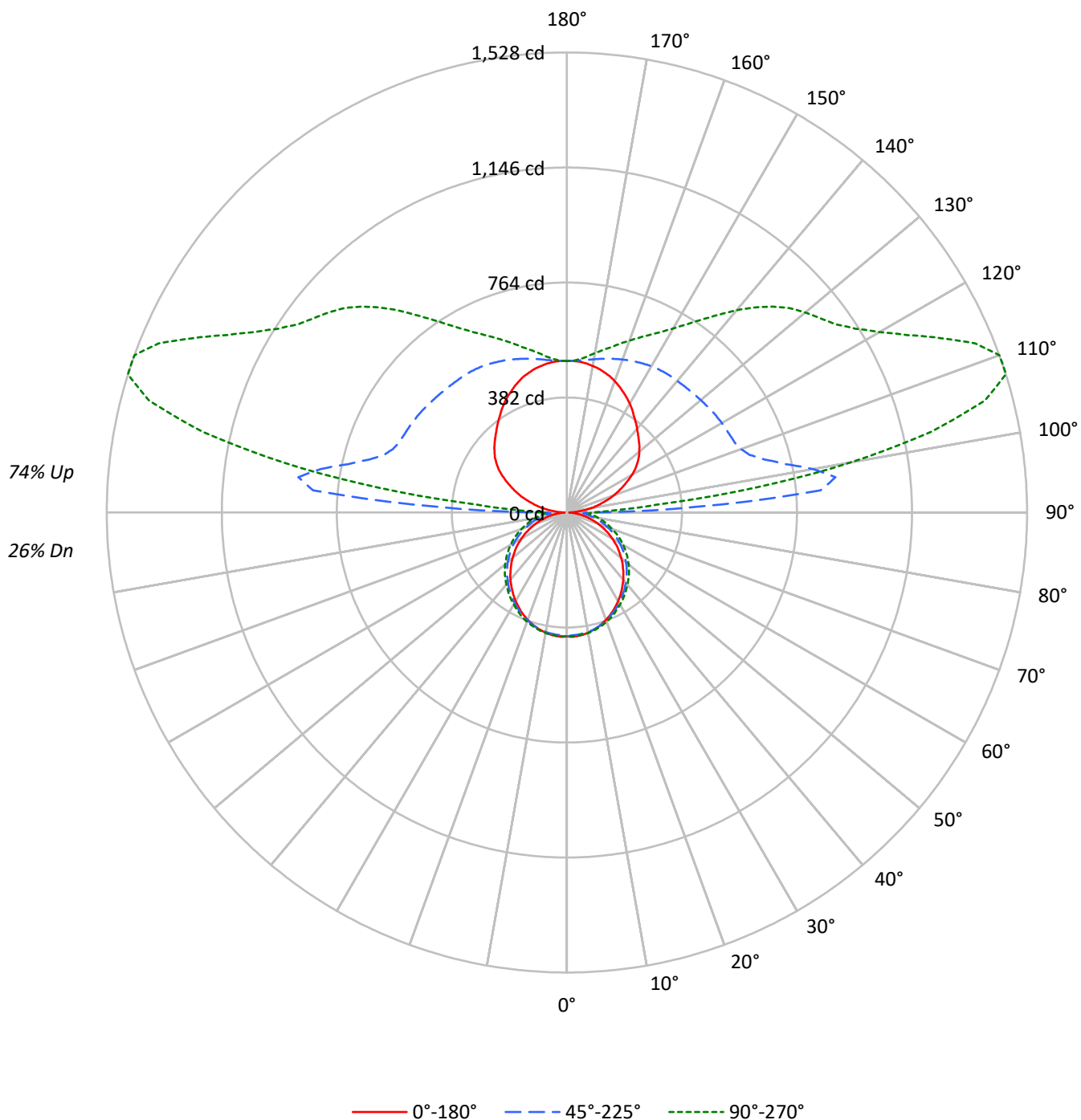
Lumens per Lamp: N/A  
Luminaire Lumens: 5076.4 lumens  
Efficiency: N/A  
Efficacy: 122.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

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 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 101 | 101 | 101 | 101 | 90 | 90 | 90 | 90 | 70 | 70 | 70 | 51 | 51 | 51 | 34 | 34 | 34 |    |    | 26 |
| 1   | 92  | 87  | 83  | 80  | 82 | 78 | 75 | 72 | 60 | 58 | 56 | 44 | 43 | 41 | 29 | 28 | 27 |    |    | 20 |
| 2   | 83  | 76  | 70  | 65  | 74 | 68 | 63 | 58 | 52 | 49 | 46 | 38 | 36 | 34 | 25 | 24 | 23 |    |    | 17 |
| 3   | 76  | 67  | 59  | 54  | 67 | 59 | 53 | 48 | 46 | 42 | 38 | 34 | 31 | 28 | 22 | 20 | 19 |    |    | 14 |
| 4   | 69  | 59  | 51  | 45  | 61 | 52 | 46 | 41 | 41 | 36 | 32 | 30 | 27 | 24 | 20 | 18 | 16 |    |    | 12 |
| 5   | 63  | 52  | 44  | 38  | 56 | 46 | 40 | 35 | 36 | 31 | 28 | 27 | 23 | 21 | 18 | 16 | 14 |    |    | 10 |
| 6   | 58  | 46  | 38  | 33  | 52 | 42 | 35 | 30 | 32 | 27 | 24 | 24 | 20 | 18 | 16 | 14 | 12 |    |    | 9  |
| 7   | 54  | 42  | 34  | 29  | 48 | 37 | 31 | 26 | 29 | 24 | 21 | 22 | 18 | 16 | 14 | 12 | 11 |    |    | 8  |
| 8   | 50  | 38  | 30  | 25  | 44 | 34 | 27 | 23 | 26 | 22 | 18 | 20 | 16 | 14 | 13 | 11 | 10 |    |    | 7  |
| 9   | 46  | 34  | 27  | 22  | 41 | 31 | 24 | 20 | 24 | 19 | 16 | 18 | 15 | 12 | 12 | 10 | 9  |    |    | 6  |
| 10  | 43  | 31  | 24  | 20  | 38 | 28 | 22 | 18 | 22 | 18 | 14 | 17 | 13 | 11 | 11 | 9  | 8  |    |    | 6  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3356 | 3356 | 3356 |
| 5°  | 3365 | 3268 | 3274 |
| 10° | 3343 | 3204 | 3194 |
| 15° | 3312 | 3132 | 3105 |
| 20° | 3265 | 3054 | 3018 |
| 25° | 3213 | 2967 | 2925 |
| 30° | 3157 | 2881 | 2829 |
| 35° | 3093 | 2794 | 2744 |
| 40° | 3041 | 2710 | 2656 |
| 45° | 2966 | 2631 | 2577 |
| 50° | 2901 | 2542 | 2495 |
| 55° | 2833 | 2455 | 2400 |
| 60° | 2729 | 2348 | 2311 |
| 65° | 2617 | 2233 | 2205 |
| 70° | 2479 | 2100 | 2080 |
| 75° | 2285 | 1954 | 1962 |
| 80° | 2065 | 1803 | 1838 |
| 85° | 1776 | 1653 | 1738 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2966 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.0   | 0.8       |
| 10°-20°   | 111.7  | 2.2       |
| 20°-30°   | 168.9  | 3.3       |
| 30°-40°   | 204.4  | 4.0       |
| 40°-50°   | 216.0  | 4.3       |
| 50°-60°   | 203.3  | 4.0       |
| 60°-70°   | 168.7  | 3.3       |
| 70°-80°   | 118.4  | 2.3       |
| 80°-90°   | 68.7   | 1.4       |
| 90°-100°  | 413.4  | 8.1       |
| 100°-110° | 789.5  | 15.6      |
| 110°-120° | 697.2  | 13.7      |
| 120°-130° | 580.2  | 11.4      |
| 130°-140° | 479.7  | 9.4       |
| 140°-150° | 363.6  | 7.2       |
| 150°-160° | 254.9  | 5.0       |
| 160°-170° | 149.9  | 3.0       |
| 170°-180° | 48.8   | 1.0       |
| 0°-30°    | 319.6  | 6.3       |
| 0°-40°    | 524.0  | 10.3      |
| 0°-60°    | 943.3  | 18.6      |
| 0°-90°    | 1299.1 | 25.6      |
| 90°-120°  | 1900.1 | 37.4      |
| 90°-150°  | 3323.6 | 65.5      |
| 90°-180°  | 3777.0 | 74.4      |
| 0°-180°   | 5076.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90°  | Flux |
|------|-----|-------|-----|-------|------|------|
| 0°   | 412 | 412   | 412 | 412   | 412  |      |
| 5°   | 412 | 411   | 407 | 411   | 411  | 39   |
| 15°  | 395 | 395   | 394 | 398   | 398  | 111  |
| 25°  | 361 | 364   | 365 | 370   | 371  | 166  |
| 35°  | 316 | 322   | 326 | 333   | 334  | 198  |
| 45°  | 264 | 272   | 281 | 289   | 291  | 204  |
| 55°  | 206 | 216   | 230 | 239   | 242  | 184  |
| 65°  | 143 | 158   | 173 | 185   | 188  | 142  |
| 75°  | 79  | 96    | 116 | 129   | 133  | 84   |
| 85°  | 24  | 44    | 64  | 78    | 83   | 25   |
| 90°  | 8   | 34    | 63  | 79    | 84   | 7    |
| 95°  | 39  | 124   | 846 | 451   | 298  | 41   |
| 105° | 120 | 181   | 679 | 1438  | 1436 | 128  |
| 115° | 206 | 262   | 600 | 1143  | 1370 | 205  |
| 125° | 286 | 338   | 588 | 967   | 1090 | 255  |
| 135° | 338 | 402   | 574 | 851   | 967  | 261  |
| 145° | 389 | 445   | 567 | 710   | 782  | 244  |
| 155° | 442 | 477   | 552 | 625   | 651  | 204  |
| 165° | 481 | 496   | 529 | 560   | 568  | 136  |
| 175° | 502 | 503   | 507 | 514   | 512  | 48   |
| 180° | 503 | 503   | 503 | 503   | 503  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 0°     | 411.5 | 411.5 | 411.5 | 411.5  | 411.5  |
| 2.5°   | 413.4 | 412.0 | 408.3 | 411.5  | 411.0  |
| 5°     | 412.0 | 410.6 | 407.4 | 411.0  | 410.6  |
| 7.5°   | 409.2 | 408.3 | 405.5 | 409.7  | 409.2  |
| 10°    | 405.5 | 405.1 | 402.8 | 406.9  | 406.4  |
| 12.5°  | 400.4 | 400.4 | 399.1 | 402.8  | 402.8  |
| 15°    | 394.9 | 395.4 | 394.0 | 398.1  | 397.7  |
| 17.5°  | 387.5 | 388.9 | 388.5 | 392.6  | 392.2  |
| 20°    | 379.7 | 381.1 | 381.6 | 386.2  | 386.2  |
| 22.5°  | 371.0 | 372.8 | 373.7 | 378.3  | 379.3  |
| 25°    | 361.3 | 364.0 | 365.4 | 370.5  | 371.0  |
| 27.5°  | 350.7 | 354.8 | 356.7 | 361.3  | 361.7  |
| 30°    | 340.1 | 343.8 | 347.0 | 352.1  | 353.0  |
| 32.5°  | 328.6 | 333.2 | 336.9 | 342.8  | 343.8  |
| 35°    | 316.1 | 321.6 | 326.3 | 332.7  | 334.1  |
| 37.5°  | 303.7 | 310.1 | 315.7 | 322.1  | 323.5  |
| 40°    | 291.7 | 297.7 | 304.1 | 311.1  | 312.9  |
| 42.5°  | 277.9 | 284.8 | 292.6 | 300.5  | 301.8  |
| 45°    | 263.6 | 272.3 | 281.1 | 288.9  | 291.2  |
| 47.5°  | 250.2 | 259.0 | 269.1 | 277.0  | 279.7  |
| 50°    | 235.5 | 245.6 | 255.8 | 265.0  | 267.7  |
| 52.5°  | 220.7 | 230.9 | 242.8 | 252.1  | 254.8  |
| 55°    | 206.4 | 216.1 | 229.9 | 239.2  | 241.9  |
| 57.5°  | 190.3 | 202.3 | 215.7 | 226.7  | 229.0  |
| 60°    | 174.6 | 186.6 | 201.8 | 212.4  | 216.1  |
| 62.5°  | 159.4 | 172.8 | 188.0 | 198.6  | 202.3  |
| 65°    | 142.9 | 157.6 | 173.3 | 184.8  | 188.5  |
| 67.5°  | 127.2 | 142.9 | 159.4 | 171.0  | 174.6  |
| 70°    | 111.1 | 126.7 | 144.2 | 156.7  | 159.9  |
| 72.5°  | 95.4  | 111.5 | 130.4 | 142.4  | 146.1  |
| 75°    | 79.3  | 96.3  | 115.7 | 128.6  | 132.7  |
| 77.5°  | 64.1  | 82.0  | 102.3 | 115.2  | 119.8  |
| 80°    | 50.2  | 68.7  | 88.9  | 102.8  | 106.4  |
| 82.5°  | 36.4  | 55.8  | 76.0  | 90.3   | 94.5   |
| 85°    | 24.4  | 43.8  | 64.5  | 78.3   | 82.9   |
| 87.5°  | 15.2  | 34.1  | 54.4  | 67.7   | 71.9   |
| 90°    | 8.4   | 33.7  | 63.4  | 78.8   | 83.5   |
| 92.5°  | 20.7  | 99.2  | 430.3 | 183.8  | 149.3  |
| 95°    | 38.6  | 124.0 | 845.6 | 451.3  | 297.9  |
| 97.5°  | 59.9  | 132.6 | 899.6 | 864.2  | 633.1  |
| 100°   | 80.2  | 145.6 | 829.6 | 1174.2 | 957.0  |
| 102.5° | 100.0 | 161.5 | 743.3 | 1367.1 | 1239.4 |
| 105°   | 119.7 | 181.0 | 678.8 | 1438.0 | 1436.2 |
| 107.5° | 142.5 | 201.2 | 635.9 | 1413.4 | 1528.4 |
| 110°   | 164.8 | 221.2 | 615.4 | 1331.6 | 1528.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5°  | 90°    |
|--------|-------|-------|-------|--------|--------|
| 112.5° | 186.0 | 241.6 | 604.2 | 1232.0 | 1467.0 |
| 115°   | 206.4 | 262.3 | 599.9 | 1142.8 | 1370.3 |
| 117.5° | 228.1 | 282.2 | 596.6 | 1071.7 | 1276.1 |
| 120°   | 249.4 | 301.2 | 594.3 | 1023.0 | 1198.2 |
| 122.5° | 269.2 | 320.0 | 590.9 | 990.6  | 1136.1 |
| 125°   | 285.5 | 338.4 | 588.1 | 967.0  | 1089.9 |
| 127.5° | 301.3 | 356.2 | 583.8 | 944.0  | 1059.9 |
| 130°   | 313.7 | 373.0 | 580.6 | 917.5  | 1033.5 |
| 132.5° | 326.6 | 387.8 | 577.8 | 886.5  | 1004.5 |
| 135°   | 337.9 | 402.2 | 574.4 | 850.6  | 967.1  |
| 137.5° | 349.8 | 414.2 | 572.6 | 812.8  | 923.8  |
| 140°   | 362.6 | 425.5 | 570.2 | 775.8  | 877.0  |
| 142.5° | 376.1 | 435.8 | 569.3 | 741.9  | 827.2  |
| 145°   | 388.9 | 444.8 | 567.3 | 710.4  | 782.4  |
| 147.5° | 403.8 | 453.6 | 564.4 | 684.0  | 740.6  |
| 150°   | 417.6 | 462.0 | 561.4 | 661.2  | 705.7  |
| 152.5° | 429.9 | 470.0 | 556.4 | 642.4  | 676.0  |
| 155°   | 441.8 | 476.9 | 551.5 | 624.7  | 651.3  |
| 157.5° | 453.7 | 483.3 | 546.6 | 607.8  | 628.6  |
| 160°   | 464.5 | 488.8 | 540.6 | 591.0  | 607.8  |
| 162.5° | 474.4 | 493.2 | 534.7 | 574.8  | 588.1  |
| 165°   | 481.3 | 496.2 | 528.8 | 559.9  | 568.3  |
| 167.5° | 489.2 | 498.6 | 522.8 | 547.0  | 552.5  |
| 170°   | 494.2 | 500.6 | 516.9 | 534.2  | 537.7  |
| 172.5° | 499.1 | 502.1 | 511.0 | 522.8  | 522.8  |
| 175°   | 502.1 | 503.1 | 507.0 | 513.9  | 512.0  |
| 177.5° | 504.1 | 503.1 | 504.1 | 507.5  | 504.1  |
| 180°   | 503.1 | 503.1 | 503.1 | 503.1  | 503.1  |

(END OF REPORT)