

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: P1025369

Luminaire Tested: S124DIP-B350D365UB35-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025369  
REPORT IS A COMBINATION OF REPORTS P995879 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B350D365UB35-4F0-XX-W2A-F1  
Description: Define 4 Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721} {m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

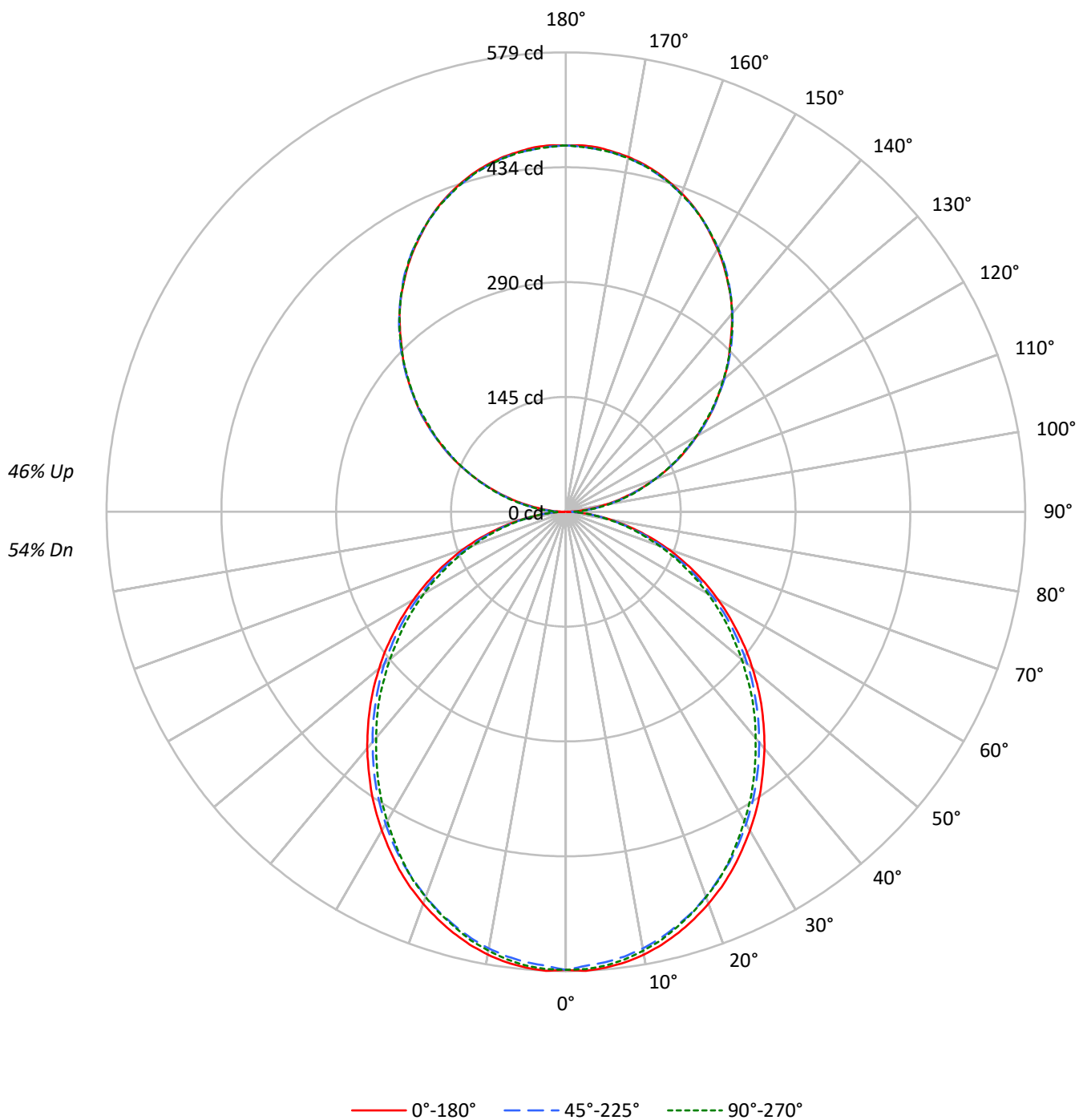
Lumens per Lamp: N/A  
Luminaire Lumens: 2764.0 lumens  
Efficiency: N/A  
Efficacy: 123.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 22.3  
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

TEST NUMBER: P1025369

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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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 59 | 59 | 59 |
| 1   | 99  | 94  | 90  | 87  | 91  | 87  | 84  | 81  | 75 | 72 | 70 | 63 | 61 | 60 | 53 | 51 | 50 |
| 2   | 90  | 82  | 76  | 71  | 83  | 76  | 71  | 66  | 66 | 61 | 58 | 55 | 53 | 50 | 46 | 44 | 42 |
| 3   | 82  | 72  | 65  | 59  | 76  | 67  | 61  | 56  | 58 | 53 | 49 | 49 | 45 | 42 | 41 | 38 | 36 |
| 4   | 75  | 64  | 56  | 50  | 69  | 60  | 53  | 47  | 51 | 46 | 42 | 44 | 40 | 36 | 37 | 34 | 31 |
| 5   | 69  | 57  | 49  | 43  | 63  | 53  | 46  | 40  | 46 | 40 | 36 | 39 | 35 | 31 | 33 | 30 | 27 |
| 6   | 63  | 51  | 43  | 37  | 59  | 48  | 41  | 35  | 41 | 36 | 31 | 35 | 31 | 28 | 30 | 26 | 24 |
| 7   | 59  | 46  | 38  | 33  | 54  | 43  | 36  | 31  | 38 | 32 | 28 | 32 | 28 | 24 | 27 | 24 | 21 |
| 8   | 54  | 42  | 34  | 29  | 50  | 39  | 32  | 27  | 34 | 29 | 25 | 30 | 25 | 22 | 25 | 22 | 19 |
| 9   | 51  | 38  | 31  | 26  | 47  | 36  | 29  | 24  | 31 | 26 | 22 | 27 | 23 | 20 | 23 | 20 | 17 |
| 10  | 47  | 35  | 28  | 23  | 44  | 33  | 26  | 22  | 29 | 24 | 20 | 25 | 21 | 18 | 22 | 18 | 16 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4708 | 4708 | 4708 |
| 5°  | 4712 | 4573 | 4579 |
| 10° | 4673 | 4446 | 4415 |
| 15° | 4606 | 4295 | 4230 |
| 20° | 4520 | 4132 | 4039 |
| 25° | 4424 | 3959 | 3834 |
| 30° | 4307 | 3772 | 3608 |
| 35° | 4187 | 3581 | 3389 |
| 40° | 4062 | 3376 | 3157 |
| 45° | 3930 | 3171 | 2940 |
| 50° | 3784 | 2971 | 2699 |
| 55° | 3627 | 2737 | 2461 |
| 60° | 3464 | 2482 | 2212 |
| 65° | 3278 | 2218 | 1932 |
| 70° | 3065 | 1900 | 1631 |
| 75° | 2746 | 1532 | 1307 |
| 80° | 2340 | 1107 | 919  |
| 85° | 1819 | 618  | 495  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3930 cd/sqm

TEST NUMBER: P1025369

CATALOG NUMBER: S124DIP-B350D365UB35-4F0-XX-W2A-F1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 54.4   | 2.0       |
| 10°-20°   | 153.3  | 5.5       |
| 20°-30°   | 225.7  | 8.2       |
| 30°-40°   | 262.3  | 9.5       |
| 40°-50°   | 262.3  | 9.5       |
| 50°-60°   | 229.4  | 8.3       |
| 60°-70°   | 170.3  | 6.2       |
| 70°-80°   | 96.6   | 3.5       |
| 80°-90°   | 28.7   | 1.0       |
| 90°-100°  | 30.1   | 1.1       |
| 100°-110° | 90.1   | 3.3       |
| 110°-120° | 153.1  | 5.5       |
| 120°-130° | 201.9  | 7.3       |
| 130°-140° | 226.8  | 8.2       |
| 140°-150° | 222.9  | 8.1       |
| 150°-160° | 187.5  | 6.8       |
| 160°-170° | 124.8  | 4.5       |
| 170°-180° | 43.7   | 1.6       |
| 0°-30°    | 433.4  | 15.7      |
| 0°-40°    | 695.7  | 25.2      |
| 0°-60°    | 1187.4 | 43.0      |
| 0°-90°    | 1483.0 | 53.7      |
| 90°-120°  | 273.3  | 9.9       |
| 90°-150°  | 925.1  | 33.5      |
| 90°-180°  | 1281.0 | 46.3      |
| 0°-180°   | 2764.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 577 | 577   | 577 | 577   | 577 |      |
| 5°   | 577 | 575   | 570 | 575   | 574 | 55   |
| 15°  | 549 | 547   | 540 | 543   | 542 | 155  |
| 25°  | 497 | 494   | 488 | 488   | 486 | 229  |
| 35°  | 428 | 425   | 418 | 415   | 413 | 268  |
| 45°  | 349 | 346   | 339 | 334   | 332 | 269  |
| 55°  | 264 | 263   | 256 | 251   | 248 | 237  |
| 65°  | 179 | 177   | 172 | 168   | 165 | 177  |
| 75°  | 95  | 93    | 91  | 89    | 88  | 101  |
| 85°  | 25  | 25    | 24  | 24    | 24  | 27   |
| 90°  | 1   | 5     | 8   | 10    | 11  | 3    |
| 95°  | 21  | 25    | 27  | 28    | 28  | 23   |
| 105° | 83  | 84    | 85  | 86    | 87  | 88   |
| 115° | 156 | 156   | 155 | 155   | 154 | 154  |
| 125° | 227 | 227   | 226 | 226   | 225 | 202  |
| 135° | 292 | 295   | 295 | 294   | 293 | 226  |
| 145° | 355 | 357   | 357 | 357   | 356 | 222  |
| 155° | 407 | 407   | 407 | 408   | 407 | 187  |
| 165° | 443 | 442   | 441 | 444   | 442 | 125  |
| 175° | 461 | 459   | 459 | 461   | 459 | 44   |
| 180° | 462 | 462   | 462 | 462   | 462 |      |

TEST NUMBER: P1025369

CATALOG NUMBER: S124DIP-B350D365UB35-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 577.4 | 577.4 | 577.4 | 577.4 | 577.4 |
| 2.5°   | 579.2 | 577.9 | 572.8 | 577.4 | 576.9 |
| 5°     | 576.9 | 575.1 | 570.0 | 575.1 | 574.2 |
| 7.5°   | 572.8 | 570.9 | 565.4 | 569.5 | 569.1 |
| 10°    | 566.8 | 564.9 | 558.9 | 562.6 | 561.7 |
| 12.5°  | 558.9 | 557.0 | 550.6 | 554.7 | 553.3 |
| 15°    | 549.2 | 547.3 | 540.4 | 543.2 | 541.8 |
| 17.5°  | 538.1 | 535.8 | 529.3 | 531.1 | 530.2 |
| 20°    | 525.6 | 523.3 | 516.3 | 517.7 | 516.8 |
| 22.5°  | 512.2 | 508.9 | 502.0 | 504.8 | 502.9 |
| 25°    | 497.4 | 494.1 | 487.6 | 488.1 | 486.3 |
| 27.5°  | 480.7 | 477.5 | 471.4 | 470.5 | 468.2 |
| 30°    | 464.0 | 460.3 | 454.3 | 452.5 | 450.2 |
| 32.5°  | 446.5 | 443.2 | 436.7 | 434.4 | 432.1 |
| 35°    | 428.0 | 424.7 | 418.2 | 415.0 | 412.7 |
| 37.5°  | 408.5 | 405.8 | 398.8 | 395.6 | 392.3 |
| 40°    | 389.6 | 385.9 | 378.9 | 374.3 | 372.0 |
| 42.5°  | 369.2 | 367.3 | 359.5 | 353.9 | 352.5 |
| 45°    | 349.3 | 346.1 | 338.7 | 333.6 | 332.2 |
| 47.5°  | 328.5 | 326.2 | 319.2 | 313.7 | 310.0 |
| 50°    | 307.2 | 305.4 | 298.9 | 292.4 | 289.6 |
| 52.5°  | 286.4 | 284.1 | 277.1 | 271.6 | 267.9 |
| 55°    | 264.2 | 262.8 | 256.3 | 250.8 | 248.0 |
| 57.5°  | 243.4 | 242.0 | 235.5 | 229.9 | 227.2 |
| 60°    | 221.6 | 219.3 | 213.3 | 209.1 | 206.8 |
| 62.5°  | 200.3 | 198.5 | 192.0 | 188.3 | 186.0 |
| 65°    | 179.0 | 176.7 | 172.1 | 167.5 | 165.2 |
| 67.5°  | 157.3 | 155.5 | 150.8 | 146.2 | 145.7 |
| 70°    | 137.4 | 134.2 | 130.5 | 126.8 | 125.4 |
| 72.5°  | 116.1 | 112.9 | 110.1 | 107.3 | 105.9 |
| 75°    | 95.3  | 93.0  | 90.7  | 88.8  | 88.4  |
| 77.5°  | 75.0  | 74.0  | 71.7  | 71.2  | 69.9  |
| 80°    | 56.9  | 55.5  | 54.6  | 53.7  | 53.2  |
| 82.5°  | 39.3  | 38.9  | 38.9  | 38.4  | 37.9  |
| 85°    | 25.0  | 25.0  | 24.1  | 24.1  | 23.6  |
| 87.5°  | 12.0  | 11.6  | 11.1  | 11.1  | 11.1  |
| 90°    | 1.1   | 5.0   | 7.9   | 10.0  | 10.7  |
| 92.5°  | 9.3   | 13.9  | 15.7  | 16.8  | 17.1  |
| 95°    | 21.4  | 24.6  | 27.1  | 28.2  | 28.2  |
| 97.5°  | 34.3  | 37.1  | 40.0  | 41.4  | 41.4  |
| 100°   | 50.0  | 51.4  | 54.6  | 55.3  | 55.3  |
| 102.5° | 66.4  | 66.8  | 69.6  | 70.7  | 71.1  |
| 105°   | 83.2  | 83.6  | 85.0  | 86.1  | 87.1  |
| 107.5° | 100.7 | 101.0 | 101.4 | 102.8 | 102.5 |
| 110°   | 118.5 | 119.3 | 118.9 | 118.2 | 119.3 |

TEST NUMBER: P1025369

CATALOG NUMBER: S124DIP-B350D365UB35-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 137.1 | 137.1 | 136.4 | 136.4 | 136.4 |
| 115°   | 155.7 | 155.7 | 155.0 | 154.6 | 154.3 |
| 117.5° | 173.2 | 173.2 | 172.8 | 171.7 | 170.7 |
| 120°   | 190.7 | 192.1 | 191.0 | 189.2 | 190.0 |
| 122.5° | 208.9 | 209.2 | 208.9 | 207.8 | 206.0 |
| 125°   | 226.7 | 226.7 | 226.4 | 225.7 | 225.0 |
| 127.5° | 242.8 | 243.9 | 243.2 | 242.4 | 242.1 |
| 130°   | 259.9 | 261.0 | 261.0 | 260.3 | 258.9 |
| 132.5° | 277.4 | 278.2 | 277.8 | 277.1 | 276.7 |
| 135°   | 292.4 | 294.6 | 294.6 | 293.9 | 292.8 |
| 137.5° | 309.2 | 310.3 | 311.0 | 309.9 | 310.3 |
| 140°   | 326.0 | 326.7 | 326.7 | 326.4 | 326.0 |
| 142.5° | 341.4 | 342.1 | 341.7 | 341.7 | 341.7 |
| 145°   | 355.3 | 356.7 | 357.1 | 356.7 | 355.6 |
| 147.5° | 369.6 | 371.3 | 371.0 | 370.6 | 370.3 |
| 150°   | 382.4 | 383.8 | 383.8 | 383.8 | 383.5 |
| 152.5° | 394.6 | 395.3 | 395.6 | 396.7 | 395.6 |
| 155°   | 407.1 | 407.1 | 406.7 | 408.1 | 406.7 |
| 157.5° | 417.8 | 417.1 | 417.1 | 418.1 | 417.1 |
| 160°   | 427.1 | 426.7 | 426.3 | 427.4 | 425.6 |
| 162.5° | 435.6 | 434.6 | 434.2 | 436.3 | 434.6 |
| 165°   | 443.1 | 442.0 | 441.3 | 443.5 | 442.0 |
| 167.5° | 449.2 | 447.8 | 447.8 | 449.9 | 447.8 |
| 170°   | 454.2 | 452.4 | 452.8 | 454.9 | 452.4 |
| 172.5° | 457.8 | 456.3 | 456.3 | 458.8 | 456.3 |
| 175°   | 461.0 | 459.2 | 458.8 | 461.3 | 458.8 |
| 177.5° | 462.4 | 460.6 | 460.6 | 463.1 | 460.3 |
| 180°   | 461.7 | 461.7 | 461.7 | 461.7 | 461.7 |

(END OF REPORT)