

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: P1025617

Luminaire Tested: S124DIP-B575D590UB27-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025617  
REPORT IS A COMBINATION OF REPORTS P996202 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B575D590UB27-4F0-XX-W2A-D  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

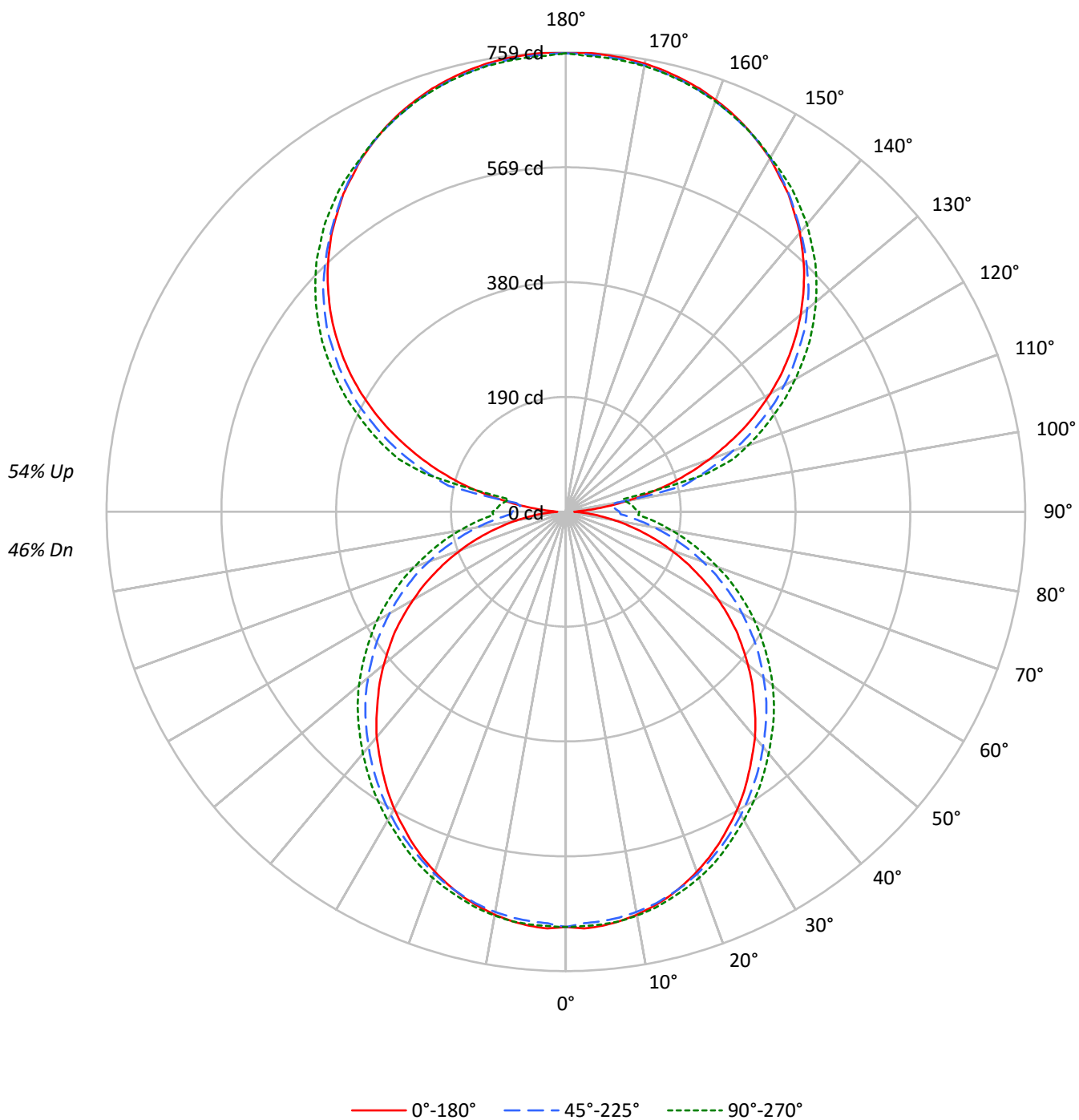
Lumens per Lamp: N/A  
Luminaire Lumens: 4685.0 lumens  
Efficiency: N/A  
Efficacy: 118.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 39.4  
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   | 106 | 106 | 106 | 106 | 98 | 98 | 98 | 98 | 81 | 81 | 81 | 66 | 66 | 66 | 53 | 53 | 53 |
| 1   | 96  | 91  | 87  | 83  | 88 | 84 | 80 | 77 | 70 | 67 | 65 | 57 | 55 | 53 | 45 | 44 | 43 |
| 2   | 87  | 79  | 73  | 67  | 79 | 73 | 67 | 62 | 61 | 56 | 53 | 49 | 46 | 44 | 39 | 37 | 35 |
| 3   | 79  | 69  | 62  | 55  | 72 | 64 | 57 | 52 | 53 | 48 | 44 | 43 | 40 | 37 | 34 | 32 | 29 |
| 4   | 72  | 61  | 53  | 47  | 66 | 56 | 49 | 43 | 47 | 41 | 37 | 38 | 34 | 31 | 30 | 27 | 25 |
| 5   | 66  | 54  | 46  | 40  | 60 | 50 | 43 | 37 | 42 | 36 | 32 | 34 | 30 | 27 | 27 | 24 | 22 |
| 6   | 61  | 48  | 40  | 34  | 55 | 45 | 37 | 32 | 38 | 32 | 28 | 31 | 27 | 23 | 25 | 21 | 19 |
| 7   | 56  | 44  | 36  | 30  | 51 | 40 | 33 | 28 | 34 | 28 | 24 | 28 | 24 | 20 | 22 | 19 | 17 |
| 8   | 52  | 40  | 32  | 26  | 48 | 37 | 30 | 25 | 31 | 25 | 21 | 26 | 21 | 18 | 21 | 17 | 15 |
| 9   | 48  | 36  | 28  | 23  | 44 | 33 | 27 | 22 | 28 | 23 | 19 | 23 | 19 | 16 | 19 | 16 | 13 |
| 10  | 45  | 33  | 26  | 21  | 41 | 31 | 24 | 20 | 26 | 21 | 17 | 22 | 18 | 15 | 18 | 14 | 12 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5594 | 5594 | 5594 |
| 5°  | 5610 | 5448 | 5458 |
| 10° | 5574 | 5341 | 5326 |
| 15° | 5521 | 5220 | 5177 |
| 20° | 5444 | 5090 | 5032 |
| 25° | 5357 | 4946 | 4875 |
| 30° | 5263 | 4804 | 4716 |
| 35° | 5156 | 4658 | 4574 |
| 40° | 5070 | 4518 | 4427 |
| 45° | 4944 | 4387 | 4297 |
| 50° | 4836 | 4238 | 4161 |
| 55° | 4725 | 4094 | 4002 |
| 60° | 4552 | 3915 | 3854 |
| 65° | 4362 | 3723 | 3675 |
| 70° | 4130 | 3502 | 3469 |
| 75° | 3807 | 3256 | 3272 |
| 80° | 3442 | 3008 | 3066 |
| 85° | 2962 | 2757 | 2899 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4944 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 65.0   | 1.4       |
| 10°-20°   | 186.2  | 4.0       |
| 20°-30°   | 281.6  | 6.0       |
| 30°-40°   | 340.7  | 7.3       |
| 40°-50°   | 360.2  | 7.7       |
| 50°-60°   | 339.0  | 7.2       |
| 60°-70°   | 281.3  | 6.0       |
| 70°-80°   | 197.4  | 4.2       |
| 80°-90°   | 112.9  | 2.4       |
| 90°-100°  | 91.4   | 2.0       |
| 100°-110° | 214.7  | 4.6       |
| 110°-120° | 349.2  | 7.5       |
| 120°-130° | 420.0  | 9.0       |
| 130°-140° | 437.5  | 9.3       |
| 140°-150° | 403.2  | 8.6       |
| 150°-160° | 323.9  | 6.9       |
| 160°-170° | 208.9  | 4.5       |
| 170°-180° | 72.0   | 1.5       |
| 0°-30°    | 532.8  | 11.4      |
| 0°-40°    | 873.5  | 18.6      |
| 0°-60°    | 1572.7 | 33.6      |
| 0°-90°    | 2164.2 | 46.2      |
| 90°-120°  | 655.3  | 14.0      |
| 90°-150°  | 1916.0 | 40.9      |
| 90°-180°  | 2521.0 | 53.8      |
| 0°-180°   | 4685.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 686 | 686   | 686 | 686   | 686 |      |
| 5°   | 687 | 684   | 679 | 685   | 684 | 65   |
| 15°  | 658 | 659   | 657 | 664   | 663 | 186  |
| 25°  | 602 | 607   | 609 | 618   | 618 | 277  |
| 35°  | 527 | 536   | 544 | 555   | 557 | 330  |
| 45°  | 439 | 454   | 469 | 482   | 486 | 340  |
| 55°  | 344 | 360   | 383 | 399   | 403 | 307  |
| 65°  | 238 | 263   | 289 | 308   | 314 | 236  |
| 75°  | 132 | 161   | 193 | 214   | 221 | 140  |
| 85°  | 41  | 73    | 108 | 131   | 138 | 42   |
| 90°  | 14  | 51    | 89  | 114   | 122 | 10   |
| 95°  | 41  | 47    | 79  | 104   | 111 | 46   |
| 105° | 178 | 196   | 228 | 252   | 238 | 186  |
| 115° | 323 | 332   | 356 | 374   | 379 | 318  |
| 125° | 451 | 452   | 470 | 487   | 492 | 403  |
| 135° | 557 | 556   | 564 | 577   | 583 | 429  |
| 145° | 641 | 642   | 642 | 647   | 651 | 401  |
| 155° | 702 | 703   | 701 | 703   | 702 | 324  |
| 165° | 741 | 738   | 738 | 742   | 737 | 209  |
| 175° | 758 | 754   | 755 | 760   | 753 | 72   |
| 180° | 758 | 758   | 758 | 758   | 758 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 686.0 | 686.0 | 686.0 | 686.0 | 686.0 |
| 2.5°   | 689.1 | 686.8 | 680.7 | 686.0 | 685.3 |
| 5°     | 686.8 | 684.5 | 679.1 | 685.3 | 684.5 |
| 7.5°   | 682.2 | 680.7 | 676.1 | 683.0 | 682.2 |
| 10°    | 676.1 | 675.3 | 671.4 | 678.4 | 677.6 |
| 12.5°  | 667.6 | 667.6 | 665.3 | 671.4 | 671.4 |
| 15°    | 658.4 | 659.2 | 656.8 | 663.8 | 663.0 |
| 17.5°  | 646.1 | 648.4 | 647.6 | 654.5 | 653.8 |
| 20°    | 633.0 | 635.3 | 636.1 | 643.8 | 643.8 |
| 22.5°  | 618.4 | 621.5 | 623.0 | 630.7 | 632.3 |
| 25°    | 602.3 | 606.9 | 609.2 | 617.7 | 618.4 |
| 27.5°  | 584.6 | 591.5 | 594.6 | 602.3 | 603.1 |
| 30°    | 567.0 | 573.1 | 578.5 | 586.9 | 588.5 |
| 32.5°  | 547.8 | 555.4 | 561.6 | 571.6 | 573.1 |
| 35°    | 527.0 | 536.2 | 543.9 | 554.7 | 557.0 |
| 37.5°  | 506.3 | 517.0 | 526.2 | 537.0 | 539.3 |
| 40°    | 486.3 | 496.3 | 507.0 | 518.6 | 521.6 |
| 42.5°  | 463.3 | 474.8 | 487.8 | 500.9 | 503.2 |
| 45°    | 439.4 | 454.0 | 468.6 | 481.7 | 485.5 |
| 47.5°  | 417.2 | 431.8 | 448.7 | 461.7 | 466.3 |
| 50°    | 392.6 | 409.5 | 426.4 | 441.7 | 446.4 |
| 52.5°  | 368.0 | 384.9 | 404.9 | 420.2 | 424.8 |
| 55°    | 344.2 | 360.3 | 383.4 | 398.7 | 403.3 |
| 57.5°  | 317.3 | 337.3 | 359.5 | 378.0 | 381.8 |
| 60°    | 291.2 | 311.1 | 336.5 | 354.2 | 360.3 |
| 62.5°  | 265.8 | 288.1 | 313.4 | 331.1 | 337.3 |
| 65°    | 238.2 | 262.7 | 288.9 | 308.1 | 314.2 |
| 67.5°  | 212.0 | 238.2 | 265.8 | 285.0 | 291.2 |
| 70°    | 185.1 | 211.3 | 240.5 | 261.2 | 266.6 |
| 72.5°  | 159.0 | 185.9 | 217.4 | 237.4 | 243.5 |
| 75°    | 132.1 | 160.6 | 192.8 | 214.3 | 221.3 |
| 77.5°  | 106.8 | 136.7 | 170.6 | 192.1 | 199.7 |
| 80°    | 83.7  | 114.5 | 148.3 | 171.3 | 177.5 |
| 82.5°  | 60.7  | 93.0  | 126.8 | 150.6 | 157.5 |
| 85°    | 40.7  | 73.0  | 107.6 | 130.6 | 138.3 |
| 87.5°  | 25.4  | 56.9  | 90.7  | 112.9 | 119.8 |
| 90°    | 14.0  | 50.9  | 88.6  | 114.2 | 121.5 |
| 92.5°  | 20.0  | 45.8  | 83.3  | 108.3 | 114.4 |
| 95°    | 41.2  | 47.2  | 79.3  | 103.5 | 110.9 |
| 97.5°  | 68.7  | 103.5 | 75.5  | 98.3  | 105.8 |
| 100°   | 101.4 | 131.5 | 83.3  | 94.4  | 100.4 |
| 102.5° | 138.8 | 162.5 | 198.4 | 90.9  | 97.1  |
| 105°   | 177.5 | 196.3 | 227.5 | 251.8 | 237.6 |
| 107.5° | 214.3 | 229.1 | 260.0 | 282.0 | 289.6 |
| 110°   | 250.9 | 263.4 | 293.7 | 312.5 | 320.3 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 286.5 | 299.1 | 325.5 | 341.9 | 350.3 |
| 115°   | 323.1 | 331.7 | 355.7 | 373.7 | 379.1 |
| 117.5° | 356.5 | 363.4 | 388.2 | 403.7 | 409.8 |
| 120°   | 389.7 | 394.3 | 416.0 | 432.5 | 437.5 |
| 122.5° | 421.4 | 422.6 | 444.5 | 460.4 | 464.6 |
| 125°   | 450.8 | 452.2 | 470.3 | 486.6 | 491.8 |
| 127.5° | 479.7 | 479.4 | 497.7 | 510.9 | 515.7 |
| 130°   | 506.6 | 506.4 | 520.4 | 534.9 | 539.5 |
| 132.5° | 532.1 | 532.5 | 544.0 | 557.6 | 561.6 |
| 135°   | 556.8 | 556.3 | 563.9 | 577.4 | 583.1 |
| 137.5° | 579.5 | 578.8 | 584.6 | 597.4 | 600.6 |
| 140°   | 601.6 | 602.0 | 603.9 | 615.6 | 620.0 |
| 142.5° | 620.7 | 623.0 | 622.8 | 632.4 | 635.4 |
| 145°   | 641.1 | 642.0 | 642.0 | 647.2 | 651.4 |
| 147.5° | 657.0 | 659.6 | 659.0 | 660.4 | 664.0 |
| 150°   | 674.6 | 676.0 | 675.5 | 675.5 | 676.0 |
| 152.5° | 688.5 | 690.2 | 689.1 | 690.2 | 689.6 |
| 155°   | 702.1 | 702.7 | 701.0 | 703.2 | 701.5 |
| 157.5° | 714.0 | 714.0 | 711.7 | 714.6 | 711.7 |
| 160°   | 724.2 | 722.5 | 721.9 | 725.3 | 721.9 |
| 162.5° | 733.3 | 731.0 | 730.4 | 733.8 | 729.9 |
| 165°   | 740.6 | 737.8 | 737.8 | 742.3 | 737.2 |
| 167.5° | 746.9 | 744.0 | 743.5 | 748.6 | 742.9 |
| 170°   | 752.0 | 748.6 | 749.1 | 753.7 | 748.0 |
| 172.5° | 755.4 | 752.0 | 752.5 | 757.1 | 750.8 |
| 175°   | 757.6 | 754.2 | 754.8 | 759.9 | 753.1 |
| 177.5° | 759.3 | 755.4 | 756.5 | 761.0 | 754.2 |
| 180°   | 757.6 | 757.6 | 757.6 | 757.6 | 757.6 |

(END OF REPORT)