

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: P1013111

Luminaire Tested: S124DIP-B575D590UB2750-4F0-XX-W2A-D\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1013111  
REPORT IS A COMBINATION OF REPORTS P996217 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B575D590UB2750-4F0-XX-W2A-D\_5000K  
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

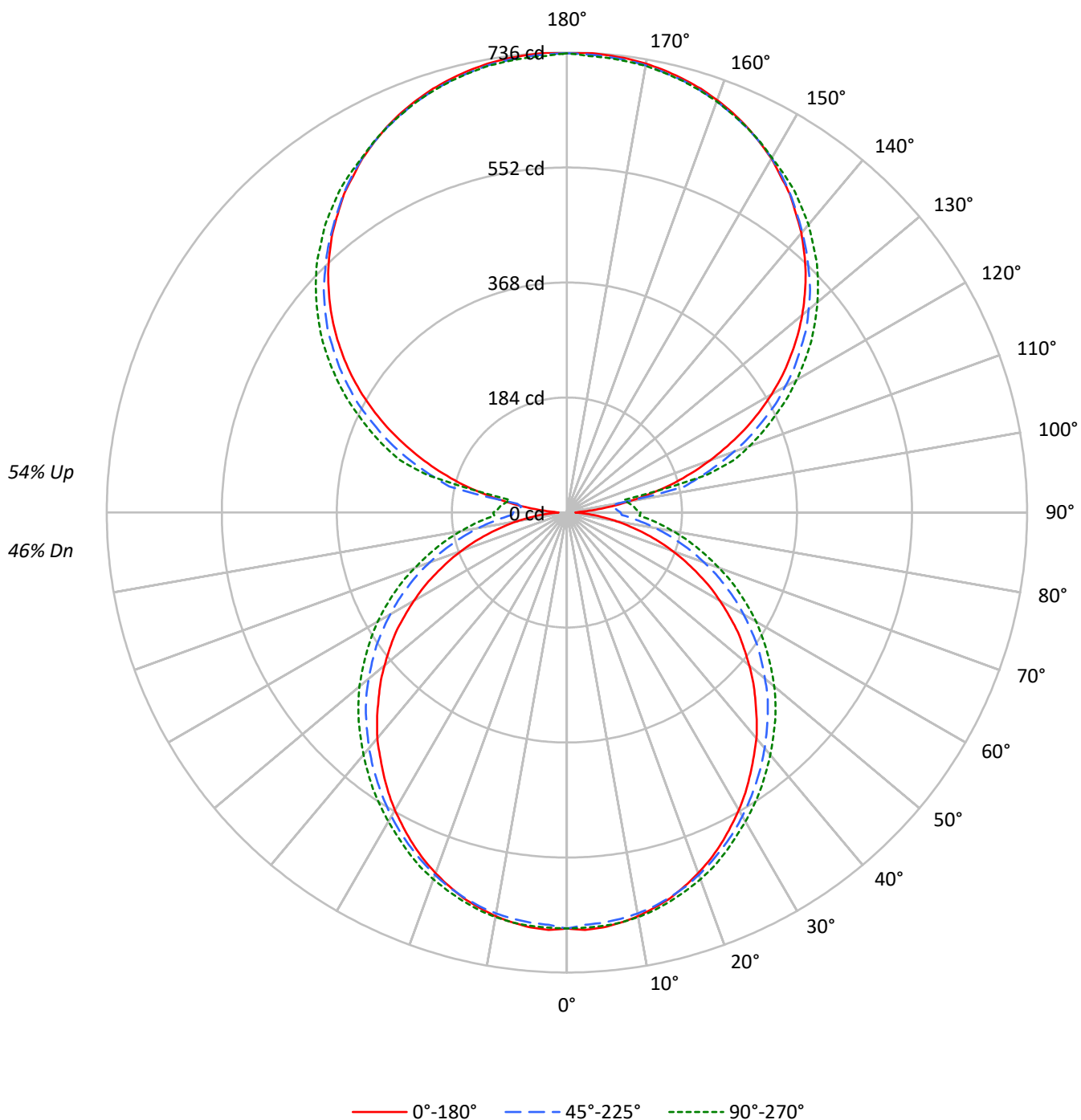
Lumens per Lamp: N/A  
Luminaire Lumens: 4544.0 lumens  
Efficiency: N/A  
Efficacy: 115.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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°  | 5427 | 5427 | 5427 |
| 5°  | 5442 | 5285 | 5295 |
| 10° | 5406 | 5182 | 5167 |
| 15° | 5356 | 5065 | 5022 |
| 20° | 5281 | 4938 | 4881 |
| 25° | 5197 | 4798 | 4729 |
| 30° | 5105 | 4660 | 4575 |
| 35° | 5001 | 4518 | 4437 |
| 40° | 4918 | 4383 | 4294 |
| 45° | 4796 | 4255 | 4168 |
| 50° | 4691 | 4111 | 4036 |
| 55° | 4583 | 3972 | 3883 |
| 60° | 4416 | 3798 | 3738 |
| 65° | 4230 | 3611 | 3565 |
| 70° | 4007 | 3397 | 3364 |
| 75° | 3694 | 3160 | 3173 |
| 80° | 3340 | 2916 | 2975 |
| 85° | 2874 | 2673 | 2811 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4796 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 63.1   | 1.4       |
| 10°-20°   | 180.7  | 4.0       |
| 20°-30°   | 273.2  | 6.0       |
| 30°-40°   | 330.5  | 7.3       |
| 40°-50°   | 349.4  | 7.7       |
| 50°-60°   | 328.8  | 7.2       |
| 60°-70°   | 272.9  | 6.0       |
| 70°-80°   | 191.5  | 4.2       |
| 80°-90°   | 109.5  | 2.4       |
| 90°-100°  | 88.6   | 2.0       |
| 100°-110° | 208.2  | 4.6       |
| 110°-120° | 338.6  | 7.5       |
| 120°-130° | 407.3  | 9.0       |
| 130°-140° | 424.3  | 9.3       |
| 140°-150° | 391.0  | 8.6       |
| 150°-160° | 314.1  | 6.9       |
| 160°-170° | 202.6  | 4.5       |
| 170°-180° | 69.8   | 1.5       |
| 0°-30°    | 516.9  | 11.4      |
| 0°-40°    | 847.4  | 18.6      |
| 0°-60°    | 1525.6 | 33.6      |
| 0°-90°    | 2099.4 | 46.2      |
| 90°-120°  | 635.5  | 14.0      |
| 90°-150°  | 1858.1 | 40.9      |
| 90°-180°  | 2445.0 | 53.8      |
| 0°-180°   | 4544.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 666 | 666   | 666 | 666   | 666 |      |
| 5°   | 666 | 664   | 659 | 665   | 664 | 63   |
| 15°  | 639 | 639   | 637 | 644   | 643 | 180  |
| 25°  | 584 | 589   | 591 | 599   | 600 | 269  |
| 35°  | 511 | 520   | 528 | 538   | 540 | 320  |
| 45°  | 426 | 440   | 455 | 467   | 471 | 329  |
| 55°  | 334 | 350   | 372 | 387   | 391 | 298  |
| 65°  | 231 | 255   | 280 | 299   | 305 | 229  |
| 75°  | 128 | 156   | 187 | 208   | 215 | 136  |
| 85°  | 40  | 71    | 104 | 127   | 134 | 41   |
| 90°  | 14  | 49    | 86  | 111   | 118 | 10   |
| 95°  | 40  | 46    | 77  | 100   | 108 | 45   |
| 105° | 172 | 190   | 221 | 244   | 230 | 181  |
| 115° | 313 | 322   | 345 | 362   | 368 | 309  |
| 125° | 437 | 438   | 456 | 472   | 477 | 391  |
| 135° | 540 | 540   | 547 | 560   | 566 | 416  |
| 145° | 622 | 623   | 623 | 628   | 632 | 389  |
| 155° | 681 | 681   | 680 | 682   | 680 | 314  |
| 165° | 718 | 716   | 716 | 720   | 715 | 203  |
| 175° | 735 | 731   | 732 | 737   | 730 | 70   |
| 180° | 735 | 735   | 735 | 735   | 735 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 665.5 | 665.5 | 665.5 | 665.5 | 665.5 |
| 2.5°   | 668.5 | 666.3 | 660.3 | 665.5 | 664.8 |
| 5°     | 666.3 | 664.0 | 658.8 | 664.8 | 664.0 |
| 7.5°   | 661.8 | 660.3 | 655.8 | 662.5 | 661.8 |
| 10°    | 655.8 | 655.1 | 651.4 | 658.1 | 657.3 |
| 12.5°  | 647.6 | 647.6 | 645.4 | 651.4 | 651.4 |
| 15°    | 638.7 | 639.4 | 637.2 | 643.9 | 643.2 |
| 17.5°  | 626.8 | 629.0 | 628.2 | 635.0 | 634.2 |
| 20°    | 614.1 | 616.3 | 617.1 | 624.5 | 624.5 |
| 22.5°  | 599.9 | 602.9 | 604.4 | 611.9 | 613.3 |
| 25°    | 584.3 | 588.7 | 591.0 | 599.2 | 599.9 |
| 27.5°  | 567.1 | 573.8 | 576.8 | 584.3 | 585.0 |
| 30°    | 550.0 | 556.0 | 561.2 | 569.4 | 570.9 |
| 32.5°  | 531.4 | 538.8 | 544.8 | 554.5 | 556.0 |
| 35°    | 511.2 | 520.2 | 527.6 | 538.1 | 540.3 |
| 37.5°  | 491.1 | 501.6 | 510.5 | 520.9 | 523.2 |
| 40°    | 471.7 | 481.4 | 491.9 | 503.0 | 506.0 |
| 42.5°  | 449.4 | 460.6 | 473.2 | 485.9 | 488.1 |
| 45°    | 426.3 | 440.4 | 454.6 | 467.3 | 471.0 |
| 47.5°  | 404.7 | 418.8 | 435.2 | 447.9 | 452.4 |
| 50°    | 380.8 | 397.2 | 413.6 | 428.5 | 433.0 |
| 52.5°  | 357.0 | 373.4 | 392.7 | 407.7 | 412.1 |
| 55°    | 333.9 | 349.5 | 371.9 | 386.8 | 391.3 |
| 57.5°  | 307.8 | 327.2 | 348.8 | 366.7 | 370.4 |
| 60°    | 282.5 | 301.8 | 326.4 | 343.6 | 349.5 |
| 62.5°  | 257.9 | 279.5 | 304.1 | 321.2 | 327.2 |
| 65°    | 231.0 | 254.9 | 280.2 | 298.8 | 304.8 |
| 67.5°  | 205.7 | 231.0 | 257.9 | 276.5 | 282.5 |
| 70°    | 179.6 | 204.9 | 233.3 | 253.4 | 258.6 |
| 72.5°  | 154.3 | 180.4 | 210.9 | 230.3 | 236.2 |
| 75°    | 128.2 | 155.8 | 187.1 | 207.9 | 214.6 |
| 77.5°  | 103.6 | 132.7 | 165.4 | 186.3 | 193.8 |
| 80°    | 81.2  | 111.0 | 143.8 | 166.2 | 172.2 |
| 82.5°  | 58.9  | 90.2  | 123.0 | 146.1 | 152.8 |
| 85°    | 39.5  | 70.8  | 104.3 | 126.7 | 134.1 |
| 87.5°  | 24.6  | 55.1  | 87.9  | 109.6 | 116.3 |
| 90°    | 13.5  | 49.4  | 85.9  | 110.8 | 117.9 |
| 92.5°  | 19.4  | 44.4  | 80.8  | 105.0 | 110.9 |
| 95°    | 39.9  | 45.8  | 76.9  | 100.4 | 107.6 |
| 97.5°  | 66.6  | 100.4 | 73.2  | 95.3  | 102.6 |
| 100°   | 98.3  | 127.6 | 80.8  | 91.6  | 97.4  |
| 102.5° | 134.6 | 157.6 | 192.5 | 88.2  | 94.2  |
| 105°   | 172.1 | 190.3 | 220.7 | 244.2 | 230.4 |
| 107.5° | 207.8 | 222.2 | 252.1 | 273.5 | 280.9 |
| 110°   | 243.4 | 255.4 | 284.8 | 303.0 | 310.7 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 277.8 | 290.1 | 315.8 | 331.5 | 339.7 |
| 115°   | 313.3 | 321.7 | 344.9 | 362.4 | 367.6 |
| 117.5° | 345.8 | 352.4 | 376.4 | 391.6 | 397.5 |
| 120°   | 377.9 | 382.4 | 403.5 | 419.5 | 424.3 |
| 122.5° | 408.7 | 409.8 | 431.0 | 446.6 | 450.7 |
| 125°   | 437.1 | 438.5 | 456.1 | 471.9 | 476.9 |
| 127.5° | 465.2 | 464.9 | 482.6 | 495.5 | 500.2 |
| 130°   | 491.3 | 491.1 | 504.7 | 518.6 | 523.1 |
| 132.5° | 516.0 | 516.4 | 527.5 | 540.8 | 544.7 |
| 135°   | 540.0 | 539.5 | 546.9 | 559.9 | 565.5 |
| 137.5° | 562.0 | 561.2 | 567.0 | 579.3 | 582.4 |
| 140°   | 583.5 | 583.8 | 585.6 | 597.0 | 601.2 |
| 142.5° | 601.9 | 604.1 | 603.9 | 613.2 | 616.2 |
| 145°   | 621.7 | 622.6 | 622.6 | 627.7 | 631.8 |
| 147.5° | 637.1 | 639.7 | 639.1 | 640.4 | 643.9 |
| 150°   | 654.1 | 655.6 | 655.0 | 655.0 | 655.6 |
| 152.5° | 667.7 | 669.3 | 668.2 | 669.3 | 668.8 |
| 155°   | 680.9 | 681.4 | 679.8 | 682.0 | 680.3 |
| 157.5° | 692.4 | 692.4 | 690.2 | 693.0 | 690.2 |
| 160°   | 702.3 | 700.6 | 700.1 | 703.4 | 700.1 |
| 162.5° | 711.1 | 708.9 | 708.3 | 711.6 | 707.8 |
| 165°   | 718.2 | 715.5 | 715.5 | 719.9 | 714.9 |
| 167.5° | 724.3 | 721.5 | 721.0 | 725.9 | 720.4 |
| 170°   | 729.2 | 725.9 | 726.5 | 730.9 | 725.4 |
| 172.5° | 732.5 | 729.2 | 729.8 | 734.2 | 728.1 |
| 175°   | 734.7 | 731.4 | 732.0 | 736.9 | 730.3 |
| 177.5° | 736.4 | 732.5 | 733.6 | 738.0 | 731.4 |
| 180°   | 734.7 | 734.7 | 734.7 | 734.7 | 734.7 |

(END OF REPORT)