

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: P1025698

Luminaire Tested: S124DIP-B575D810UB50-4F0-XX-W2A-D

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025698  
REPORT IS A COMBINATION OF REPORTS P996313 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B575D810UB50-4F0-XX-W2A-D  
Description: Define 4 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

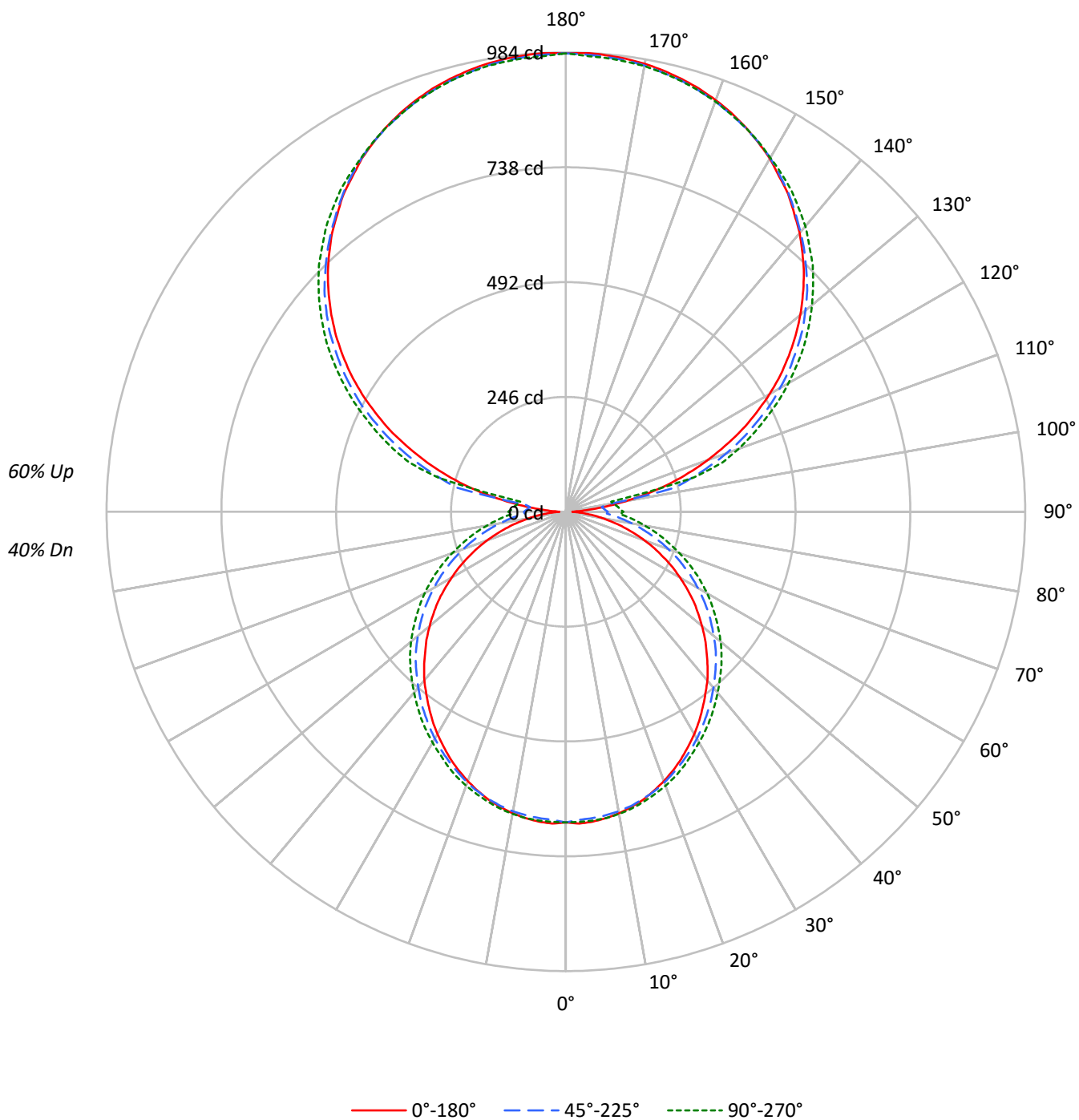
Lumens per Lamp: N/A  
Luminaire Lumens: 5309.0 lumens  
Efficiency: N/A  
Efficacy: 117.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Indirect

Input Watts (W): 45.1  
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 |    |    |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 61 | 61 | 61 | 47 | 47 | 47 | 40 | 40 | 40 |
| 1   | 95  | 90  | 86  | 82  | 86 | 82 | 78 | 75 | 67 | 64 | 62 | 53 | 51 | 49 | 40 | 39 | 38 | 32 | 32 | 32 |
| 2   | 86  | 78  | 72  | 66  | 78 | 71 | 66 | 61 | 58 | 54 | 51 | 46 | 43 | 41 | 35 | 33 | 31 | 26 | 26 | 26 |
| 3   | 78  | 68  | 61  | 55  | 71 | 62 | 56 | 51 | 51 | 46 | 42 | 40 | 37 | 34 | 30 | 28 | 26 | 22 | 22 | 22 |
| 4   | 71  | 60  | 52  | 46  | 64 | 55 | 48 | 43 | 45 | 40 | 36 | 36 | 32 | 29 | 27 | 24 | 22 | 18 | 18 | 18 |
| 5   | 65  | 53  | 45  | 39  | 59 | 49 | 42 | 36 | 40 | 35 | 30 | 32 | 28 | 25 | 24 | 21 | 19 | 16 | 16 | 16 |
| 6   | 60  | 48  | 40  | 34  | 54 | 44 | 36 | 31 | 36 | 30 | 26 | 29 | 25 | 21 | 22 | 19 | 17 | 14 | 14 | 14 |
| 7   | 55  | 43  | 35  | 29  | 50 | 39 | 32 | 27 | 32 | 27 | 23 | 26 | 22 | 19 | 20 | 17 | 15 | 12 | 12 | 12 |
| 8   | 51  | 39  | 31  | 26  | 46 | 36 | 29 | 24 | 29 | 24 | 20 | 24 | 20 | 17 | 18 | 15 | 13 | 11 | 11 | 11 |
| 9   | 48  | 35  | 28  | 23  | 43 | 33 | 26 | 21 | 27 | 22 | 18 | 22 | 18 | 15 | 17 | 14 | 12 | 10 | 10 | 10 |
| 10  | 44  | 32  | 25  | 20  | 40 | 30 | 23 | 19 | 25 | 20 | 16 | 20 | 16 | 13 | 16 | 13 | 11 | 9  | 9  | 9  |

**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   | 1.2       |
| 10°-20°   | 180.7  | 3.4       |
| 20°-30°   | 273.2  | 5.1       |
| 30°-40°   | 330.5  | 6.2       |
| 40°-50°   | 349.4  | 6.6       |
| 50°-60°   | 328.8  | 6.2       |
| 60°-70°   | 272.9  | 5.1       |
| 70°-80°   | 191.5  | 3.6       |
| 80°-90°   | 110.0  | 2.1       |
| 90°-100°  | 96.9   | 1.8       |
| 100°-110° | 262.2  | 4.9       |
| 110°-120° | 441.8  | 8.3       |
| 120°-130° | 538.3  | 10.1      |
| 130°-140° | 564.3  | 10.6      |
| 140°-150° | 522.0  | 9.8       |
| 150°-160° | 419.7  | 7.9       |
| 160°-170° | 270.7  | 5.1       |
| 170°-180° | 93.3   | 1.8       |
| 0°-30°    | 516.9  | 9.7       |
| 0°-40°    | 847.4  | 16.0      |
| 0°-60°    | 1525.6 | 28.7      |
| 0°-90°    | 2099.9 | 39.6      |
| 90°-120°  | 800.9  | 15.1      |
| 90°-150°  | 2425.4 | 45.7      |
| 90°-180°  | 3209.0 | 60.4      |
| 0°-180°   | 5309.0 | 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  | 52    | 90  | 116   | 123 | 10   |
| 95°  | 50  | 50    | 81  | 106   | 113 | 58   |
| 105° | 228 | 247   | 278 | 304   | 283 | 239  |
| 115° | 417 | 426   | 449 | 467   | 472 | 411  |
| 125° | 583 | 585   | 602 | 619   | 624 | 521  |
| 135° | 721 | 720   | 728 | 742   | 748 | 556  |
| 145° | 830 | 832   | 832 | 837   | 842 | 519  |
| 155° | 910 | 911   | 908 | 911   | 909 | 420  |
| 165° | 960 | 956   | 956 | 962   | 955 | 271  |
| 175° | 982 | 977   | 978 | 985   | 976 | 93   |
| 180° | 982 | 982   | 982 | 982   | 982 |      |

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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°    | 14.1  | 52.0  | 90.0  | 116.0 | 123.4 |
| 92.5°  | 22.2  | 46.8  | 84.7  | 110.0 | 115.9 |
| 95°    | 50.1  | 49.7  | 81.0  | 105.6 | 113.0 |
| 97.5°  | 86.0  | 123.9 | 77.3  | 100.3 | 107.8 |
| 100°   | 128.6 | 161.2 | 88.9  | 96.6  | 102.6 |
| 102.5° | 177.1 | 202.3 | 239.4 | 93.6  | 99.6  |
| 105°   | 227.7 | 247.0 | 278.3 | 303.5 | 283.1 |
| 107.5° | 275.5 | 290.4 | 321.6 | 343.9 | 352.0 |
| 110°   | 323.2 | 335.8 | 366.3 | 384.9 | 393.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 369.4 | 382.8 | 408.9 | 424.5 | 433.4 |
| 115°   | 417.2 | 426.1 | 449.2 | 467.0 | 472.2 |
| 117.5° | 460.5 | 467.8 | 492.5 | 507.4 | 513.3 |
| 120°   | 503.8 | 509.0 | 529.9 | 546.2 | 550.7 |
| 122.5° | 544.9 | 546.4 | 567.9 | 583.7 | 587.4 |
| 125°   | 583.1 | 585.2 | 602.5 | 618.8 | 624.0 |
| 127.5° | 620.6 | 620.5 | 639.1 | 651.8 | 656.3 |
| 130°   | 655.7 | 655.8 | 669.9 | 684.0 | 688.5 |
| 132.5° | 688.8 | 689.6 | 701.4 | 714.8 | 718.6 |
| 135°   | 721.1 | 720.4 | 728.5 | 741.9 | 747.9 |
| 137.5° | 750.5 | 749.7 | 756.4 | 769.0 | 772.0 |
| 140°   | 779.1 | 779.8 | 782.1 | 794.0 | 798.4 |
| 142.5° | 804.0 | 807.0 | 807.0 | 816.7 | 819.7 |
| 145°   | 830.5 | 832.0 | 832.0 | 837.2 | 841.7 |
| 147.5° | 851.0 | 854.7 | 854.0 | 855.4 | 859.2 |
| 150°   | 873.8 | 876.0 | 875.3 | 875.3 | 876.0 |
| 152.5° | 892.2 | 894.4 | 892.9 | 894.4 | 893.7 |
| 155°   | 909.8 | 910.6 | 908.3 | 911.3 | 909.1 |
| 157.5° | 925.2 | 925.2 | 922.3 | 926.0 | 922.3 |
| 160°   | 938.5 | 936.3 | 935.5 | 939.9 | 935.5 |
| 162.5° | 950.2 | 947.3 | 946.5 | 950.9 | 945.8 |
| 165°   | 959.8 | 956.1 | 956.1 | 962.0 | 955.3 |
| 167.5° | 967.8 | 964.2 | 963.4 | 970.0 | 962.7 |
| 170°   | 974.4 | 970.0 | 970.8 | 976.6 | 969.3 |
| 172.5° | 978.8 | 974.4 | 975.2 | 981.0 | 973.0 |
| 175°   | 981.8 | 977.4 | 978.1 | 984.7 | 975.9 |
| 177.5° | 984.0 | 978.8 | 980.3 | 986.2 | 977.4 |
| 180°   | 981.8 | 981.8 | 981.8 | 981.8 | 981.8 |

(END OF REPORT)