

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: P1025888

Luminaire Tested: S124DIP-B795D810UB27-4F0-XX-W2A-D1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025888  
REPORT IS A COMBINATION OF REPORTS P996563 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B795D810UB27-4F0-XX-W2A-D1  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

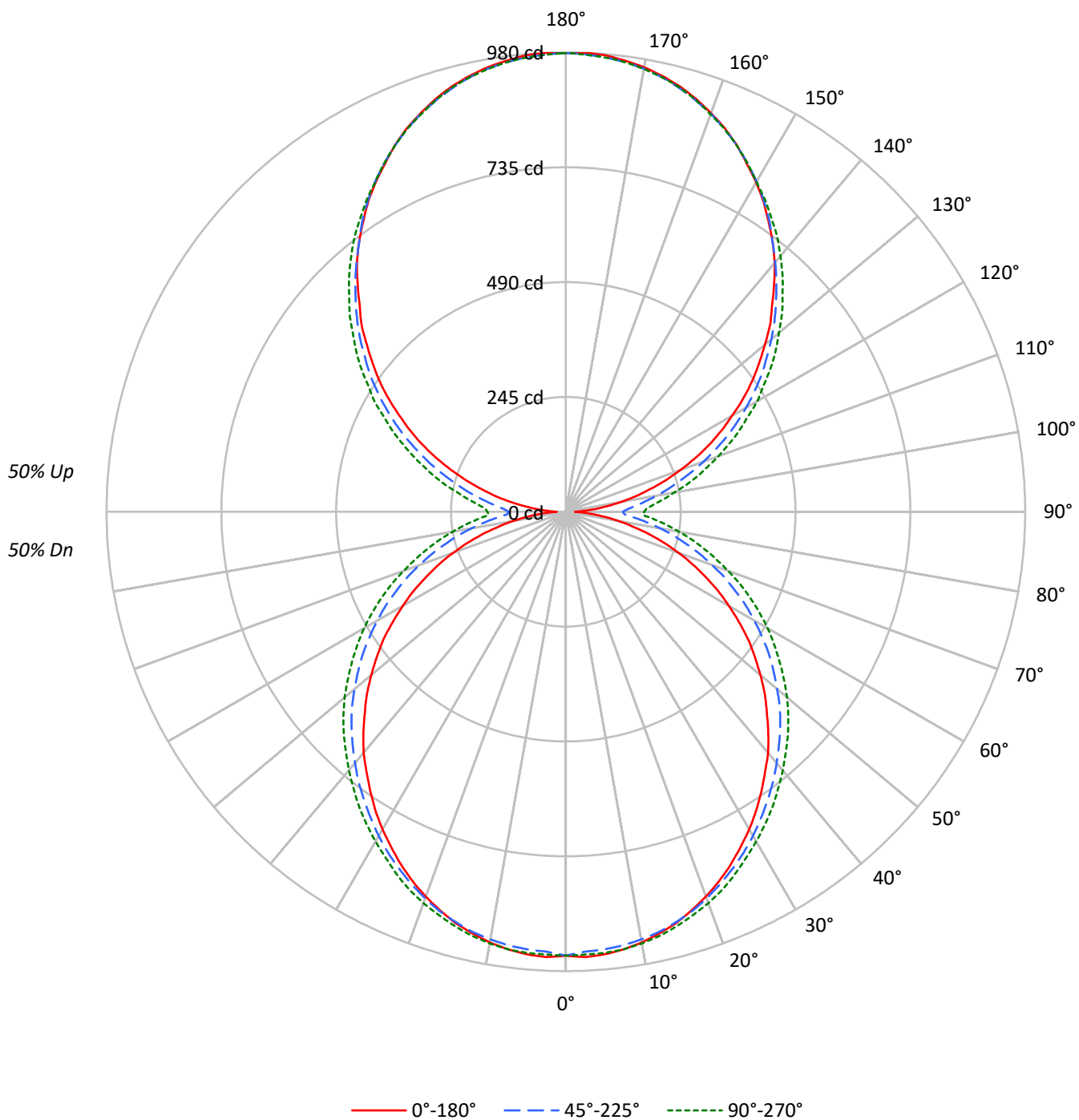
Lumens per Lamp: N/A  
Luminaire Lumens: 5946.0 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 57  
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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 | 56 | 56 | 56 |
| 1   | 97  | 92  | 88  | 84  | 89 | 85 | 81 | 78 | 72 | 69 | 66 | 59 | 57 | 56 | 48 | 47 | 46 | 46 | 46 | 40 |
| 2   | 88  | 80  | 73  | 68  | 81 | 74 | 68 | 63 | 62 | 58 | 54 | 52 | 48 | 46 | 42 | 40 | 38 | 38 | 38 | 33 |
| 3   | 80  | 70  | 62  | 56  | 73 | 64 | 58 | 52 | 54 | 49 | 45 | 45 | 41 | 38 | 37 | 34 | 31 | 31 | 31 | 27 |
| 4   | 73  | 61  | 53  | 47  | 67 | 57 | 50 | 44 | 48 | 43 | 38 | 40 | 36 | 32 | 33 | 29 | 27 | 27 | 27 | 23 |
| 5   | 67  | 55  | 46  | 40  | 61 | 51 | 43 | 37 | 43 | 37 | 33 | 36 | 31 | 28 | 29 | 26 | 23 | 23 | 23 | 20 |
| 6   | 61  | 49  | 40  | 34  | 56 | 45 | 38 | 32 | 39 | 33 | 28 | 32 | 28 | 24 | 26 | 23 | 20 | 20 | 20 | 17 |
| 7   | 57  | 44  | 36  | 30  | 52 | 41 | 34 | 28 | 35 | 29 | 25 | 29 | 25 | 21 | 24 | 21 | 18 | 18 | 18 | 15 |
| 8   | 53  | 40  | 32  | 27  | 48 | 37 | 30 | 25 | 32 | 26 | 22 | 27 | 22 | 19 | 22 | 19 | 16 | 16 | 16 | 14 |
| 9   | 49  | 36  | 29  | 24  | 45 | 34 | 27 | 22 | 29 | 23 | 20 | 25 | 20 | 17 | 20 | 17 | 14 | 14 | 14 | 12 |
| 10  | 46  | 33  | 26  | 21  | 42 | 31 | 24 | 20 | 27 | 21 | 18 | 23 | 18 | 15 | 19 | 15 | 13 | 13 | 13 | 11 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7721 | 7721 | 7721 |
| 5°  | 7742 | 7519 | 7533 |
| 10° | 7692 | 7371 | 7350 |
| 15° | 7619 | 7205 | 7144 |
| 20° | 7513 | 7025 | 6944 |
| 25° | 7393 | 6827 | 6729 |
| 30° | 7263 | 6630 | 6508 |
| 35° | 7116 | 6428 | 6313 |
| 40° | 6997 | 6236 | 6110 |
| 45° | 6824 | 6054 | 5931 |
| 50° | 6674 | 5848 | 5741 |
| 55° | 6520 | 5650 | 5523 |
| 60° | 6281 | 5403 | 5319 |
| 65° | 6020 | 5136 | 5071 |
| 70° | 5700 | 4833 | 4786 |
| 75° | 5256 | 4494 | 4514 |
| 80° | 4754 | 4149 | 4230 |
| 85° | 4090 | 3803 | 3999 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6824 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.7   | 1.5       |
| 10°-20°   | 257.0  | 4.3       |
| 20°-30°   | 388.6  | 6.5       |
| 30°-40°   | 470.2  | 7.9       |
| 40°-50°   | 497.1  | 8.4       |
| 50°-60°   | 467.8  | 7.9       |
| 60°-70°   | 388.2  | 6.5       |
| 70°-80°   | 272.4  | 4.6       |
| 80°-90°   | 155.7  | 2.6       |
| 90°-100°  | 155.2  | 2.6       |
| 100°-110° | 258.8  | 4.4       |
| 110°-120° | 370.1  | 6.2       |
| 120°-130° | 453.7  | 7.6       |
| 130°-140° | 492.0  | 8.3       |
| 140°-150° | 474.9  | 8.0       |
| 150°-160° | 397.5  | 6.7       |
| 160°-170° | 264.5  | 4.4       |
| 170°-180° | 92.6   | 1.6       |
| 0°-30°    | 735.4  | 12.4      |
| 0°-40°    | 1205.6 | 20.3      |
| 0°-60°    | 2170.4 | 36.5      |
| 0°-90°    | 2986.7 | 50.2      |
| 90°-120°  | 784.1  | 13.2      |
| 90°-150°  | 2204.7 | 37.1      |
| 90°-180°  | 2959.0 | 49.8      |
| 0°-180°   | 5946.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-----|-------|-----|-------|-----|------|
| 0°   | 947 | 947   | 947 | 947   | 947 |      |
| 5°   | 948 | 945   | 937 | 946   | 945 | 90   |
| 15°  | 909 | 910   | 906 | 916   | 915 | 256  |
| 25°  | 831 | 838   | 841 | 852   | 854 | 383  |
| 35°  | 727 | 740   | 751 | 766   | 769 | 455  |
| 45°  | 606 | 627   | 647 | 665   | 670 | 469  |
| 55°  | 475 | 497   | 529 | 550   | 557 | 423  |
| 65°  | 329 | 363   | 399 | 425   | 434 | 326  |
| 75°  | 182 | 222   | 266 | 296   | 305 | 194  |
| 85°  | 56  | 101   | 148 | 180   | 191 | 59   |
| 90°  | 19  | 70    | 122 | 157   | 167 | 15   |
| 95°  | 59  | 101   | 150 | 181   | 190 | 60   |
| 105° | 186 | 208   | 250 | 279   | 290 | 198  |
| 115° | 336 | 346   | 378 | 401   | 408 | 332  |
| 125° | 485 | 484   | 510 | 528   | 533 | 433  |
| 135° | 622 | 627   | 634 | 650   | 654 | 482  |
| 145° | 754 | 756   | 757 | 763   | 765 | 472  |
| 155° | 863 | 863   | 862 | 865   | 862 | 397  |
| 165° | 940 | 937   | 936 | 940   | 937 | 265  |
| 175° | 977 | 974   | 973 | 978   | 973 | 93   |
| 180° | 979 | 979   | 979 | 979   | 979 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 0°     | 946.8 | 946.8 | 946.8 | 946.8 | 946.8 |
| 2.5°   | 951.0 | 947.9 | 939.4 | 946.8 | 945.7 |
| 5°     | 947.9 | 944.7 | 937.2 | 945.7 | 944.7 |
| 7.5°   | 941.5 | 939.4 | 933.0 | 942.6 | 941.5 |
| 10°    | 933.0 | 931.9 | 926.6 | 936.2 | 935.1 |
| 12.5°  | 921.3 | 921.3 | 918.2 | 926.6 | 926.6 |
| 15°    | 908.6 | 909.7 | 906.5 | 916.0 | 915.0 |
| 17.5°  | 891.7 | 894.8 | 893.8 | 903.3 | 902.3 |
| 20°    | 873.6 | 876.8 | 877.9 | 888.5 | 888.5 |
| 22.5°  | 853.5 | 857.7 | 859.9 | 870.5 | 872.6 |
| 25°    | 831.2 | 837.6 | 840.8 | 852.4 | 853.5 |
| 27.5°  | 806.8 | 816.4 | 820.6 | 831.2 | 832.3 |
| 30°    | 782.5 | 790.9 | 798.4 | 810.0 | 812.1 |
| 32.5°  | 755.9 | 766.6 | 775.0 | 788.8 | 790.9 |
| 35°    | 727.3 | 740.0 | 750.6 | 765.5 | 768.7 |
| 37.5°  | 698.7 | 713.5 | 726.3 | 741.1 | 744.3 |
| 40°    | 671.1 | 684.9 | 699.8 | 715.7 | 719.9 |
| 42.5°  | 639.3 | 655.2 | 673.3 | 691.3 | 694.5 |
| 45°    | 606.5 | 626.6 | 646.7 | 664.8 | 670.1 |
| 47.5°  | 575.7 | 595.9 | 619.2 | 637.2 | 643.6 |
| 50°    | 541.8 | 565.1 | 588.4 | 609.6 | 616.0 |
| 52.5°  | 507.9 | 531.2 | 558.7 | 579.9 | 586.3 |
| 55°    | 475.0 | 497.3 | 529.1 | 550.3 | 556.6 |
| 57.5°  | 437.9 | 465.4 | 496.2 | 521.6 | 526.9 |
| 60°    | 401.8 | 429.4 | 464.4 | 488.8 | 497.3 |
| 62.5°  | 366.8 | 397.6 | 432.6 | 457.0 | 465.4 |
| 65°    | 328.7 | 362.6 | 398.6 | 425.2 | 433.6 |
| 67.5°  | 292.6 | 328.7 | 366.8 | 393.3 | 401.8 |
| 70°    | 255.5 | 291.6 | 331.9 | 360.5 | 367.9 |
| 72.5°  | 219.5 | 256.6 | 300.0 | 327.6 | 336.1 |
| 75°    | 182.4 | 221.6 | 266.1 | 295.8 | 305.3 |
| 77.5°  | 147.4 | 188.7 | 235.4 | 265.1 | 275.7 |
| 80°    | 115.6 | 158.0 | 204.6 | 236.4 | 244.9 |
| 82.5°  | 83.8  | 128.3 | 174.9 | 207.8 | 217.3 |
| 85°    | 56.2  | 100.7 | 148.4 | 180.2 | 190.8 |
| 87.5°  | 35.0  | 78.5  | 125.1 | 155.9 | 165.4 |
| 90°    | 19.3  | 70.0  | 121.7 | 156.9 | 166.9 |
| 92.5°  | 35.6  | 82.5  | 131.9 | 163.9 | 173.1 |
| 95°    | 59.2  | 101.0 | 149.7 | 180.7 | 190.2 |
| 97.5°  | 85.4  | 122.2 | 171.7 | 202.3 | 211.8 |
| 100°   | 117.7 | 148.2 | 196.4 | 226.5 | 233.9 |
| 102.5° | 152.5 | 176.6 | 222.9 | 252.7 | 261.9 |
| 105°   | 185.9 | 207.8 | 250.2 | 278.9 | 289.7 |
| 107.5° | 223.0 | 241.8 | 279.7 | 309.2 | 315.9 |
| 110°   | 259.8 | 276.1 | 312.5 | 335.4 | 346.1 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 298.1 | 310.8 | 344.3 | 367.7 | 376.1 |
| 115°   | 336.5 | 346.0 | 378.3 | 401.0 | 407.6 |
| 117.5° | 373.6 | 379.9 | 410.9 | 430.9 | 437.2 |
| 120°   | 409.6 | 415.8 | 444.2 | 461.6 | 471.6 |
| 122.5° | 448.2 | 448.9 | 476.8 | 495.7 | 499.4 |
| 125°   | 484.9 | 483.9 | 509.7 | 528.2 | 533.1 |
| 127.5° | 519.0 | 520.2 | 539.9 | 557.5 | 564.2 |
| 130°   | 554.3 | 555.5 | 572.5 | 590.1 | 593.3 |
| 132.5° | 591.4 | 591.8 | 603.8 | 620.4 | 625.9 |
| 135°   | 622.1 | 626.6 | 634.0 | 649.5 | 653.7 |
| 137.5° | 657.7 | 659.0 | 664.7 | 678.3 | 684.4 |
| 140°   | 693.3 | 693.8 | 694.8 | 707.8 | 712.4 |
| 142.5° | 724.8 | 726.3 | 724.5 | 736.2 | 740.4 |
| 145°   | 754.3 | 756.3 | 757.0 | 762.7 | 764.6 |
| 147.5° | 784.6 | 787.3 | 786.6 | 786.9 | 790.3 |
| 150°   | 811.9 | 813.8 | 813.8 | 813.8 | 813.0 |
| 152.5° | 836.5 | 838.0 | 838.8 | 841.1 | 838.8 |
| 155°   | 863.0 | 863.0 | 862.3 | 865.3 | 862.3 |
| 157.5° | 885.7 | 884.2 | 884.2 | 886.5 | 884.2 |
| 160°   | 905.4 | 904.6 | 903.9 | 906.2 | 902.4 |
| 162.5° | 923.6 | 921.3 | 920.5 | 925.1 | 921.3 |
| 165°   | 939.5 | 937.2 | 935.7 | 940.2 | 937.2 |
| 167.5° | 952.3 | 949.3 | 949.3 | 953.9 | 949.3 |
| 170°   | 962.9 | 959.2 | 959.9 | 964.5 | 959.2 |
| 172.5° | 970.5 | 967.5 | 967.5 | 972.8 | 967.5 |
| 175°   | 977.3 | 973.5 | 972.8 | 978.1 | 972.8 |
| 177.5° | 980.3 | 976.6 | 976.6 | 981.9 | 975.8 |
| 180°   | 978.8 | 978.8 | 978.8 | 978.8 | 978.8 |

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