

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: P1013285

Luminaire Tested: S124RDIP-B1195D590UB2750-4F0-XX-W2A-F\_2700K

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1013285  
REPORT IS A COMBINATION OF REPORTS P999150 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B1195D590UB2750-4F0-XX-W2A-F\_2700K  
Description: Define 4 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

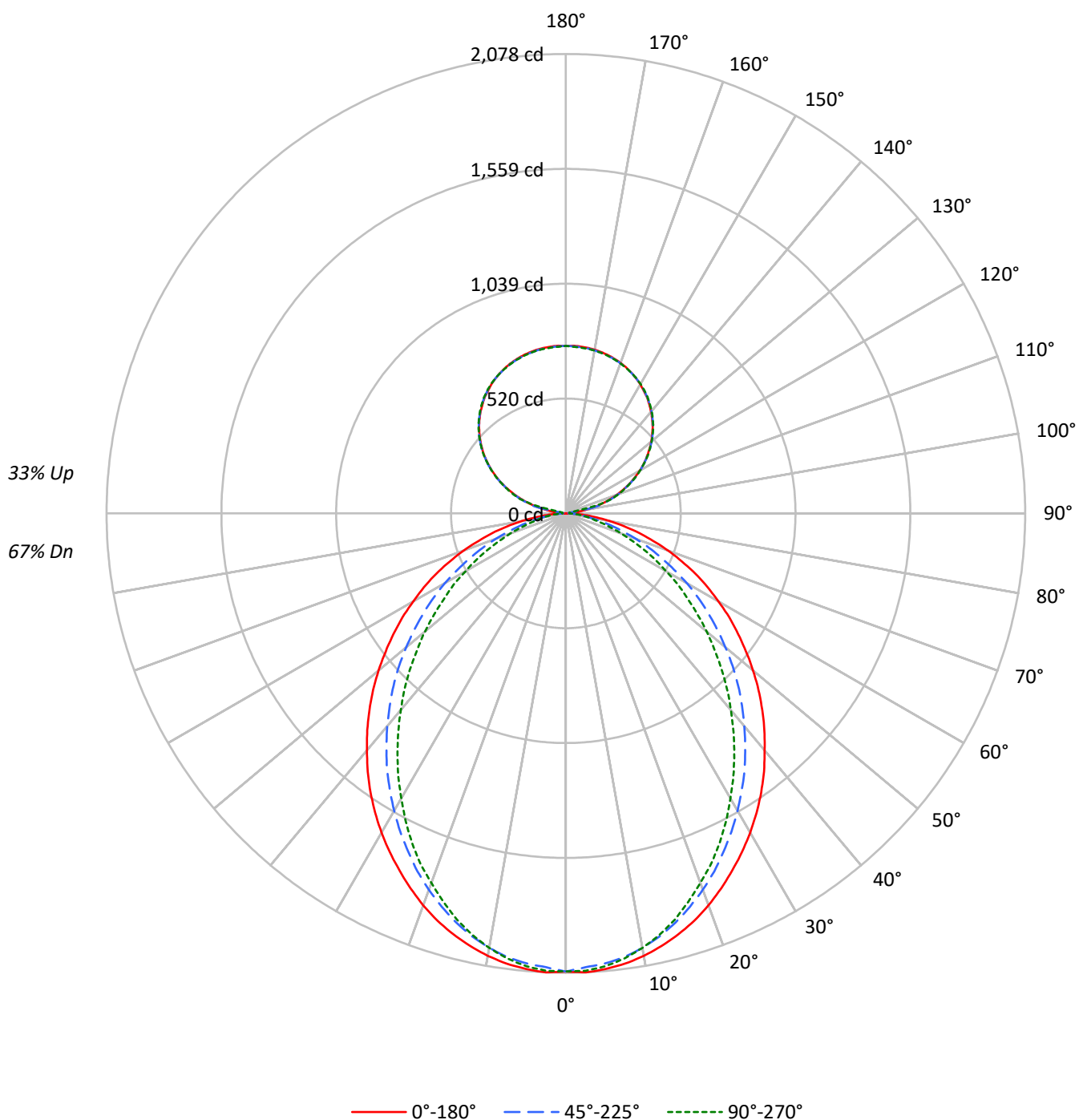
Lumens per Lamp: N/A  
Luminaire Lumens: 7133.9 lumens  
Efficiency: N/A  
Efficacy: 93.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 76.7  
Input Voltage (V): 120  
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   | 111 | 111 | 111 | 111 | 105 | 105 | 105 | 105 | 93 | 93 | 93 | 82 | 82 | 82 | 72 | 72 | 72 | 67 |    |    |
| 1   | 102 | 98  | 94  | 90  | 96  | 92  | 89  | 86  | 82 | 80 | 77 | 73 | 71 | 69 | 64 | 63 | 61 | 57 |    |    |
| 2   | 93  | 86  | 80  | 74  | 88  | 81  | 76  | 71  | 72 | 68 | 65 | 64 | 61 | 58 | 57 | 54 | 52 | 49 |    |    |
| 3   | 85  | 76  | 68  | 62  | 80  | 72  | 65  | 60  | 64 | 59 | 55 | 57 | 53 | 50 | 51 | 48 | 45 | 42 |    |    |
| 4   | 78  | 67  | 59  | 53  | 73  | 64  | 57  | 51  | 57 | 52 | 47 | 51 | 47 | 43 | 46 | 42 | 39 | 36 |    |    |
| 5   | 72  | 60  | 52  | 46  | 68  | 57  | 50  | 44  | 51 | 45 | 41 | 46 | 41 | 37 | 41 | 37 | 34 | 31 |    |    |
| 6   | 66  | 54  | 46  | 40  | 63  | 52  | 44  | 39  | 47 | 40 | 36 | 42 | 37 | 33 | 37 | 33 | 30 | 28 |    |    |
| 7   | 62  | 49  | 41  | 35  | 58  | 47  | 39  | 34  | 42 | 36 | 32 | 38 | 33 | 29 | 34 | 30 | 27 | 25 |    |    |
| 8   | 57  | 45  | 37  | 32  | 54  | 43  | 36  | 31  | 39 | 33 | 28 | 35 | 30 | 26 | 32 | 27 | 24 | 22 |    |    |
| 9   | 54  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 36 | 30 | 26 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |    |    |
| 10  | 50  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 33 | 27 | 23 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16898 | 16898 | 16898 |
| 5°  | 16899 | 16395 | 16397 |
| 10° | 16756 | 15878 | 15689 |
| 15° | 16525 | 15234 | 14854 |
| 20° | 16223 | 14500 | 13902 |
| 25° | 15847 | 13707 | 12972 |
| 30° | 15479 | 12899 | 11927 |
| 35° | 15073 | 12079 | 10906 |
| 40° | 14590 | 11197 | 9857  |
| 45° | 14138 | 10322 | 8818  |
| 50° | 13624 | 9367  | 7764  |
| 55° | 13068 | 8387  | 6675  |
| 60° | 12451 | 7347  | 5600  |
| 65° | 11856 | 6154  | 4565  |
| 70° | 11010 | 4899  | 3488  |
| 75° | 9922  | 3563  | 2440  |
| 80° | 8287  | 2188  | 1753  |
| 85° | 6236  | 1261  | 964   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14138 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 194.9  | 2.7       |
| 10°-20°   | 543.3  | 7.6       |
| 20°-30°   | 784.4  | 11.0      |
| 30°-40°   | 889.0  | 12.5      |
| 40°-50°   | 858.3  | 12.0      |
| 50°-60°   | 713.6  | 10.0      |
| 60°-70°   | 492.5  | 6.9       |
| 70°-80°   | 248.9  | 3.5       |
| 80°-90°   | 64.8   | 0.9       |
| 90°-100°  | 25.2   | 0.4       |
| 100°-110° | 165.6  | 2.3       |
| 110°-120° | 316.3  | 4.4       |
| 120°-130° | 401.5  | 5.6       |
| 130°-140° | 429.5  | 6.0       |
| 140°-150° | 401.6  | 5.6       |
| 150°-160° | 323.9  | 4.5       |
| 160°-170° | 208.9  | 2.9       |
| 170°-180° | 72.0   | 1.0       |
| 0°-30°    | 1522.5 | 21.3      |
| 0°-40°    | 2411.5 | 33.8      |
| 0°-60°    | 3983.4 | 55.8      |
| 0°-90°    | 4789.5 | 67.1      |
| 90°-120°  | 507.0  | 7.1       |
| 90°-150°  | 1739.7 | 24.4      |
| 90°-180°  | 2344.0 | 32.9      |
| 0°-180°   | 7133.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2072 | 2072  | 2072 | 2072  | 2072 |      |
| 5°   | 2069 | 2063  | 2044 | 2060  | 2056 | 196  |
| 15°  | 1971 | 1956  | 1917 | 1914  | 1902 | 555  |
| 25°  | 1782 | 1753  | 1688 | 1661  | 1645 | 821  |
| 35°  | 1541 | 1490  | 1410 | 1357  | 1328 | 963  |
| 45°  | 1257 | 1198  | 1103 | 1025  | 996  | 969  |
| 55°  | 952  | 888   | 785  | 703   | 673  | 852  |
| 65°  | 647  | 579   | 478  | 409   | 390  | 639  |
| 75°  | 344  | 286   | 211  | 174   | 165  | 363  |
| 85°  | 86   | 54    | 49   | 46    | 46   | 94   |
| 90°  | 2    | 8     | 12   | 16    | 17   | 7    |
| 95°  | 31   | 12    | 12   | 16    | 16   | 38   |
| 105° | 171  | 174   | 177  | 182   | 162  | 179  |
| 115° | 318  | 320   | 320  | 321   | 321  | 313  |
| 125° | 448  | 450   | 449  | 450   | 451  | 400  |
| 135° | 555  | 555   | 557  | 558   | 559  | 428  |
| 145° | 640  | 642   | 642  | 643   | 644  | 400  |
| 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°     | 2072.2 | 2072.2 | 2072.2 | 2072.2 | 2072.2 |
| 2.5°   | 2078.5 | 2072.2 | 2054.7 | 2072.2 | 2070.6 |
| 5°     | 2069.0 | 2062.7 | 2043.6 | 2059.5 | 2056.3 |
| 7.5°   | 2054.7 | 2048.4 | 2024.6 | 2035.7 | 2030.9 |
| 10°    | 2032.5 | 2024.6 | 1996.0 | 2002.4 | 1996.0 |
| 12.5°  | 2004.0 | 1994.4 | 1959.5 | 1962.7 | 1953.2 |
| 15°    | 1970.6 | 1956.4 | 1916.7 | 1913.5 | 1902.4 |
| 17.5°  | 1932.6 | 1911.9 | 1865.9 | 1858.0 | 1842.1 |
| 20°    | 1886.5 | 1865.9 | 1812.0 | 1799.3 | 1778.7 |
| 22.5°  | 1835.8 | 1812.0 | 1753.3 | 1732.6 | 1716.8 |
| 25°    | 1781.8 | 1753.3 | 1688.2 | 1661.2 | 1645.4 |
| 27.5°  | 1726.3 | 1691.4 | 1623.2 | 1591.4 | 1569.2 |
| 30°    | 1667.6 | 1627.9 | 1553.3 | 1513.7 | 1488.3 |
| 32.5°  | 1605.7 | 1559.7 | 1481.9 | 1434.3 | 1410.5 |
| 35°    | 1540.7 | 1489.9 | 1410.5 | 1356.6 | 1328.0 |
| 37.5°  | 1472.4 | 1420.1 | 1332.8 | 1274.1 | 1245.5 |
| 40°    | 1399.4 | 1347.1 | 1256.6 | 1190.0 | 1161.4 |
| 42.5°  | 1329.6 | 1274.1 | 1178.9 | 1110.7 | 1080.5 |
| 45°    | 1256.6 | 1197.9 | 1102.7 | 1025.0 | 996.4  |
| 47.5°  | 1182.1 | 1121.8 | 1023.4 | 942.5  | 910.7  |
| 50°    | 1105.9 | 1044.0 | 942.5  | 863.1  | 833.0  |
| 52.5°  | 1028.2 | 967.9  | 863.1  | 782.2  | 750.5  |
| 55°    | 952.0  | 888.5  | 785.4  | 702.9  | 672.7  |
| 57.5°  | 877.4  | 810.8  | 709.2  | 625.1  | 602.9  |
| 60°    | 796.5  | 733.0  | 631.5  | 549.0  | 523.6  |
| 62.5°  | 723.5  | 656.9  | 552.2  | 477.6  | 458.5  |
| 65°    | 647.4  | 579.1  | 477.6  | 409.4  | 390.3  |
| 67.5°  | 568.0  | 503.0  | 407.8  | 347.5  | 325.3  |
| 70°    | 493.5  | 426.8  | 336.4  | 284.0  | 268.1  |
| 72.5°  | 414.1  | 355.4  | 271.3  | 228.5  | 214.2  |
| 75°    | 344.3  | 285.6  | 211.0  | 174.5  | 165.0  |
| 77.5°  | 271.3  | 220.5  | 157.1  | 131.7  | 128.5  |
| 80°    | 201.5  | 155.5  | 107.9  | 103.1  | 101.5  |
| 82.5°  | 141.2  | 100.0  | 77.7   | 74.6   | 73.0   |
| 85°    | 85.7   | 53.9   | 49.2   | 46.0   | 46.0   |
| 87.5°  | 36.5   | 23.8   | 22.2   | 20.6   | 22.2   |
| 90°    | 1.7    | 7.9    | 12.5   | 15.9   | 17.0   |
| 92.5°  | 8.5    | 7.4    | 11.9   | 15.3   | 15.3   |
| 95°    | 31.2   | 11.9   | 12.5   | 15.9   | 16.4   |
| 97.5°  | 59.5   | 72.0   | 12.5   | 15.3   | 15.9   |
| 100°   | 92.9   | 103.1  | 24.9   | 15.3   | 15.9   |
| 102.5° | 130.3  | 137.1  | 143.9  | 16.4   | 16.4   |
| 105°   | 170.6  | 174.0  | 176.8  | 181.9  | 161.5  |
| 107.5° | 207.4  | 209.1  | 213.1  | 215.9  | 218.2  |
| 110°   | 244.8  | 246.5  | 249.9  | 251.0  | 252.7  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 281.1 | 284.5 | 285.6 | 285.0 | 287.3 |
| 115°   | 318.5 | 320.2 | 319.6 | 320.7 | 320.7 |
| 117.5° | 351.9 | 354.2 | 355.9 | 355.3 | 355.3 |
| 120°   | 385.9 | 388.2 | 387.6 | 388.7 | 387.6 |
| 122.5° | 417.6 | 418.8 | 419.9 | 420.5 | 419.3 |
| 125°   | 447.7 | 449.9 | 448.8 | 450.5 | 451.1 |
| 127.5° | 476.6 | 477.1 | 480.0 | 479.4 | 478.8 |
| 130°   | 504.3 | 504.9 | 506.6 | 507.2 | 507.2 |
| 132.5° | 529.8 | 531.0 | 533.2 | 533.8 | 533.2 |
| 135°   | 555.3 | 554.8 | 557.0 | 558.2 | 559.3 |
| 137.5° | 578.0 | 578.0 | 580.8 | 582.0 | 581.4 |
| 140°   | 600.1 | 601.2 | 602.4 | 604.1 | 604.6 |
| 142.5° | 619.9 | 622.2 | 622.8 | 623.9 | 623.9 |
| 145°   | 640.3 | 642.0 | 642.0 | 642.6 | 643.7 |
| 147.5° | 656.2 | 659.6 | 659.0 | 659.6 | 660.2 |
| 150°   | 673.8 | 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)