

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: P1025171

Luminaire Tested: S124DIP-B1195D590UB27-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1025171  
REPORT IS A COMBINATION OF REPORTS P995606 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B1195D590UB27-4F0-XX-W2A-F1  
Description: Define 4 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

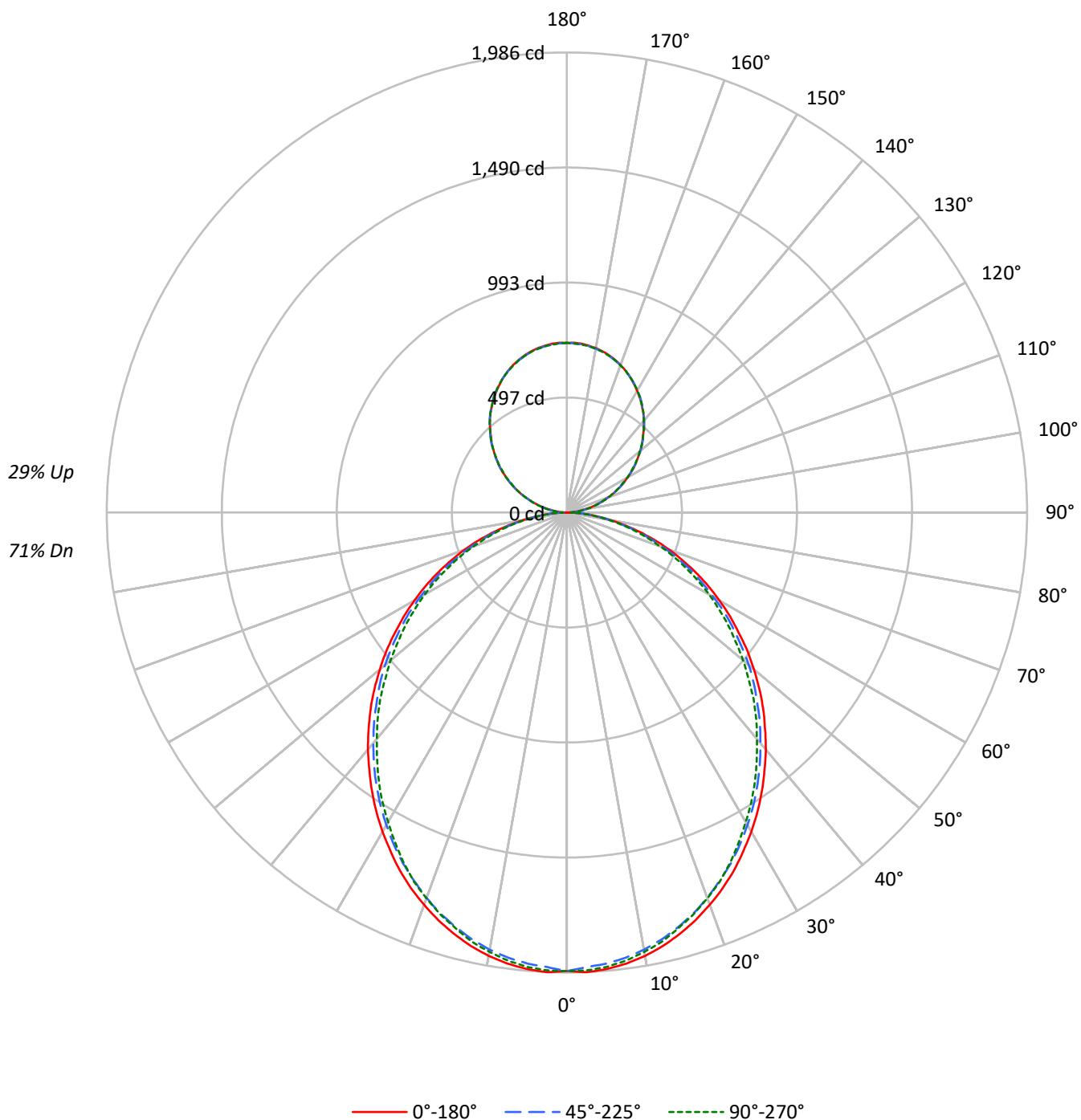
Lumens per Lamp: N/A  
Luminaire Lumens: 7116.0 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 76.7  
Input Voltage (V):  
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   | 112 | 112 | 112 | 112 | 106 | 106 | 106 | 106 | 95 | 95 | 95 | 85 | 85 | 85 | 76 | 76 | 76 |
| 1   | 103 | 98  | 94  | 90  | 97  | 93  | 89  | 86  | 84 | 81 | 78 | 75 | 73 | 71 | 67 | 65 | 64 |
| 2   | 93  | 86  | 79  | 74  | 88  | 81  | 76  | 71  | 73 | 69 | 65 | 66 | 62 | 59 | 59 | 56 | 54 |
| 3   | 85  | 75  | 68  | 62  | 80  | 72  | 65  | 59  | 65 | 59 | 55 | 58 | 54 | 50 | 52 | 49 | 46 |
| 4   | 78  | 67  | 59  | 52  | 74  | 64  | 56  | 50  | 58 | 51 | 47 | 52 | 47 | 43 | 47 | 43 | 40 |
| 5   | 72  | 60  | 51  | 45  | 68  | 57  | 49  | 43  | 52 | 45 | 40 | 47 | 41 | 37 | 42 | 38 | 35 |
| 6   | 66  | 54  | 45  | 39  | 63  | 51  | 43  | 38  | 47 | 40 | 35 | 42 | 37 | 33 | 38 | 34 | 30 |
| 7   | 61  | 49  | 40  | 35  | 58  | 46  | 39  | 33  | 42 | 36 | 31 | 39 | 33 | 29 | 35 | 30 | 27 |
| 8   | 57  | 44  | 36  | 31  | 54  | 42  | 35  | 30  | 39 | 32 | 28 | 35 | 30 | 26 | 32 | 28 | 24 |
| 9   | 53  | 41  | 33  | 27  | 50  | 39  | 32  | 27  | 36 | 29 | 25 | 33 | 27 | 24 | 30 | 25 | 22 |
| 10  | 50  | 37  | 30  | 25  | 47  | 36  | 29  | 24  | 33 | 27 | 23 | 30 | 25 | 21 | 28 | 23 | 20 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16146 | 16146 | 16146 |
| 5°  | 16159 | 15681 | 15700 |
| 10° | 16022 | 15246 | 15139 |
| 15° | 15792 | 14729 | 14506 |
| 20° | 15499 | 14169 | 13850 |
| 25° | 15168 | 13577 | 13145 |
| 30° | 14770 | 12938 | 12371 |
| 35° | 14357 | 12282 | 11622 |
| 40° | 13928 | 11578 | 10826 |
| 45° | 13476 | 10871 | 10081 |
| 50° | 12977 | 10186 | 9257  |
| 55° | 12435 | 9386  | 8438  |
| 60° | 11879 | 8510  | 7585  |
| 65° | 11244 | 7605  | 6624  |
| 70° | 10512 | 6515  | 5593  |
| 75° | 9418  | 5252  | 4480  |
| 80° | 8024  | 3797  | 3151  |
| 85° | 6236  | 2114  | 1696  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13476 cd/sqm

TEST NUMBER: P1025171

CATALOG NUMBER: S124DIP-B1195D590UB27-4F0-XX-W2A-F1

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 186.6  | 2.6       |
| 10°-20°   | 525.8  | 7.4       |
| 20°-30°   | 773.8  | 10.9      |
| 30°-40°   | 899.5  | 12.6      |
| 40°-50°   | 899.4  | 12.6      |
| 50°-60°   | 786.6  | 11.1      |
| 60°-70°   | 584.0  | 8.2       |
| 70°-80°   | 331.4  | 4.7       |
| 80°-90°   | 96.5   | 1.4       |
| 90°-100°  | 47.7   | 0.7       |
| 100°-110° | 143.0  | 2.0       |
| 110°-120° | 242.9  | 3.4       |
| 120°-130° | 320.4  | 4.5       |
| 130°-140° | 359.9  | 5.1       |
| 140°-150° | 353.7  | 5.0       |
| 150°-160° | 297.5  | 4.2       |
| 160°-170° | 197.9  | 2.8       |
| 170°-180° | 69.3   | 1.0       |
| 0°-30°    | 1486.2 | 20.9      |
| 0°-40°    | 2385.7 | 33.5      |
| 0°-60°    | 4071.7 | 57.2      |
| 0°-90°    | 5083.6 | 71.4      |
| 90°-120°  | 433.7  | 6.1       |
| 90°-150°  | 1467.7 | 20.6      |
| 90°-180°  | 2032.0 | 28.6      |
| 0°-180°   | 7116.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1980 | 1980  | 1980 | 1980  | 1980 |      |
| 5°   | 1978 | 1972  | 1955 | 1972  | 1969 | 188  |
| 15°  | 1883 | 1877  | 1853 | 1863  | 1858 | 531  |
| 25°  | 1706 | 1694  | 1672 | 1674  | 1667 | 785  |
| 35°  | 1468 | 1456  | 1434 | 1423  | 1415 | 918  |
| 45°  | 1198 | 1187  | 1161 | 1144  | 1139 | 923  |
| 55°  | 906  | 901   | 879  | 860   | 850  | 811  |
| 65°  | 614  | 606   | 590  | 574   | 566  | 608  |
| 75°  | 327  | 319   | 311  | 305   | 303  | 347  |
| 85°  | 86   | 86    | 82   | 82    | 81   | 92   |
| 90°  | 2    | 8     | 12   | 16    | 17   | 8    |
| 95°  | 34   | 39    | 43   | 45    | 45   | 37   |
| 105° | 132  | 133   | 135  | 136   | 138  | 140  |
| 115° | 247  | 247   | 246  | 245   | 245  | 244  |
| 125° | 360  | 360   | 359  | 358   | 357  | 321  |
| 135° | 464  | 467   | 467  | 466   | 464  | 359  |
| 145° | 564  | 566   | 566  | 566   | 564  | 353  |
| 155° | 646  | 646   | 645  | 648   | 645  | 297  |
| 165° | 703  | 701   | 700  | 704   | 701  | 198  |
| 175° | 731  | 728   | 728  | 732   | 728  | 69   |
| 180° | 732  | 732   | 732  | 732   | 732  |      |

TEST NUMBER: P1025171

CATALOG NUMBER: S124DIP-B1195D590UB27-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1980.0 | 1980.0 | 1980.0 | 1980.0 | 1980.0 |
| 2.5°   | 1986.3 | 1981.6 | 1964.1 | 1980.0 | 1978.4 |
| 5°     | 1978.4 | 1972.0 | 1954.6 | 1972.0 | 1968.9 |
| 7.5°   | 1964.1 | 1957.8 | 1938.7 | 1953.0 | 1951.4 |
| 10°    | 1943.5 | 1937.1 | 1916.5 | 1929.2 | 1926.0 |
| 12.5°  | 1916.5 | 1910.2 | 1888.0 | 1902.2 | 1897.5 |
| 15°    | 1883.2 | 1876.9 | 1853.1 | 1862.6 | 1857.8 |
| 17.5°  | 1845.1 | 1837.2 | 1815.0 | 1821.3 | 1818.2 |
| 20°    | 1802.3 | 1794.4 | 1770.6 | 1775.3 | 1772.1 |
| 22.5°  | 1756.3 | 1745.2 | 1721.4 | 1730.9 | 1724.5 |
| 25°    | 1705.5 | 1694.4 | 1672.2 | 1673.8 | 1667.4 |
| 27.5°  | 1648.4 | 1637.3 | 1616.7 | 1613.5 | 1605.6 |
| 30°    | 1591.3 | 1578.6 | 1558.0 | 1551.6 | 1543.7 |
| 32.5°  | 1531.0 | 1519.9 | 1497.7 | 1489.7 | 1481.8 |
| 35°    | 1467.5 | 1456.4 | 1434.2 | 1423.1 | 1415.2 |
| 37.5°  | 1400.9 | 1391.4 | 1367.6 | 1356.5 | 1345.4 |
| 40°    | 1335.9 | 1323.2 | 1299.4 | 1283.5 | 1275.6 |
| 42.5°  | 1266.0 | 1259.7 | 1232.7 | 1213.7 | 1208.9 |
| 45°    | 1197.8 | 1186.7 | 1161.3 | 1143.9 | 1139.1 |
| 47.5°  | 1126.4 | 1118.5 | 1094.7 | 1075.7 | 1063.0 |
| 50°    | 1053.4 | 1047.1 | 1024.9 | 1002.7 | 993.2  |
| 52.5°  | 982.1  | 974.1  | 950.3  | 931.3  | 918.6  |
| 55°    | 905.9  | 901.1  | 878.9  | 859.9  | 850.4  |
| 57.5°  | 834.5  | 829.8  | 807.5  | 788.5  | 779.0  |
| 60°    | 759.9  | 752.0  | 731.4  | 717.1  | 709.2  |
| 62.5°  | 687.0  | 680.6  | 658.4  | 645.7  | 637.8  |
| 65°    | 614.0  | 606.1  | 590.2  | 574.3  | 566.4  |
| 67.5°  | 539.4  | 533.1  | 517.2  | 501.3  | 499.8  |
| 70°    | 471.2  | 460.1  | 447.4  | 434.7  | 429.9  |
| 72.5°  | 398.2  | 387.1  | 377.6  | 368.1  | 363.3  |
| 75°    | 326.8  | 318.9  | 311.0  | 304.6  | 303.0  |
| 77.5°  | 257.0  | 253.8  | 245.9  | 244.3  | 239.6  |
| 80°    | 195.1  | 190.4  | 187.2  | 184.0  | 182.4  |
| 82.5°  | 134.9  | 133.3  | 133.3  | 131.7  | 130.1  |
| 85°    | 85.7   | 85.7   | 82.5   | 82.5   | 80.9   |
| 87.5°  | 41.2   | 39.7   | 38.1   | 38.1   | 38.1   |
| 90°    | 1.7    | 7.9    | 12.5   | 15.9   | 17.0   |
| 92.5°  | 14.7   | 22.1   | 24.9   | 26.6   | 27.2   |
| 95°    | 34.0   | 39.1   | 43.1   | 44.8   | 44.8   |
| 97.5°  | 54.4   | 58.9   | 63.4   | 65.7   | 65.7   |
| 100°   | 79.3   | 81.6   | 86.7   | 87.8   | 87.8   |
| 102.5° | 105.4  | 105.9  | 110.5  | 112.2  | 112.7  |
| 105°   | 132.0  | 132.6  | 134.8  | 136.5  | 138.2  |
| 107.5° | 159.8  | 160.3  | 160.9  | 163.2  | 162.6  |
| 110°   | 188.1  | 189.2  | 188.6  | 187.5  | 189.2  |



TEST NUMBER: P1025171

CATALOG NUMBER: S124DIP-B1195D590UB27-4F0-XX-W2A-F1

**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 217.5 | 217.5 | 216.4 | 216.4 | 216.4 |
| 115°   | 247.0 | 247.0 | 245.9 | 245.3 | 244.7 |
| 117.5° | 274.8 | 274.8 | 274.2 | 272.5 | 270.8 |
| 120°   | 302.5 | 304.8 | 303.1 | 300.3 | 301.4 |
| 122.5° | 331.4 | 332.0 | 331.4 | 329.7 | 326.9 |
| 125°   | 359.7 | 359.7 | 359.2 | 358.0 | 356.9 |
| 127.5° | 385.2 | 386.9 | 385.8 | 384.7 | 384.1 |
| 130°   | 412.4 | 414.1 | 414.1 | 413.0 | 410.7 |
| 132.5° | 440.2 | 441.3 | 440.7 | 439.6 | 439.1 |
| 135°   | 464.0 | 467.4 | 467.4 | 466.2 | 464.5 |
| 137.5° | 490.6 | 492.3 | 493.4 | 491.7 | 492.3 |
| 140°   | 517.2 | 518.4 | 518.4 | 517.8 | 517.2 |
| 142.5° | 541.6 | 542.7 | 542.2 | 542.2 | 542.2 |
| 145°   | 563.7 | 565.9 | 566.5 | 565.9 | 564.3 |
| 147.5° | 586.3 | 589.2 | 588.6 | 588.0 | 587.5 |
| 150°   | 606.7 | 609.0 | 609.0 | 609.0 | 608.4 |
| 152.5° | 626.0 | 627.1 | 627.7 | 629.4 | 627.7 |
| 155°   | 645.8 | 645.8 | 645.3 | 647.5 | 645.3 |
| 157.5° | 662.8 | 661.7 | 661.7 | 663.4 | 661.7 |
| 160°   | 677.6 | 677.0 | 676.4 | 678.1 | 675.3 |
| 162.5° | 691.2 | 689.5 | 688.9 | 692.3 | 689.5 |
| 165°   | 703.0 | 701.3 | 700.2 | 703.6 | 701.3 |
| 167.5° | 712.7 | 710.4 | 710.4 | 713.8 | 710.4 |
| 170°   | 720.6 | 717.8 | 718.3 | 721.7 | 717.8 |
| 172.5° | 726.3 | 724.0 | 724.0 | 728.0 | 724.0 |
| 175°   | 731.4 | 728.5 | 728.0 | 731.9 | 728.0 |
| 177.5° | 733.6 | 730.8 | 730.8 | 734.8 | 730.2 |
| 180°   | 732.5 | 732.5 | 732.5 | 732.5 | 732.5 |

(END OF REPORT)