

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: P1012984

Luminaire Tested: S124DIP-B1195D810UB2750-4F0-XX-W2A-F\_3000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012984  
REPORT IS A COMBINATION OF REPORTS P995679 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DIP-B1195D810UB2750-4F0-XX-W2A-F\_3000K  
Description: Define 4 Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589} {m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

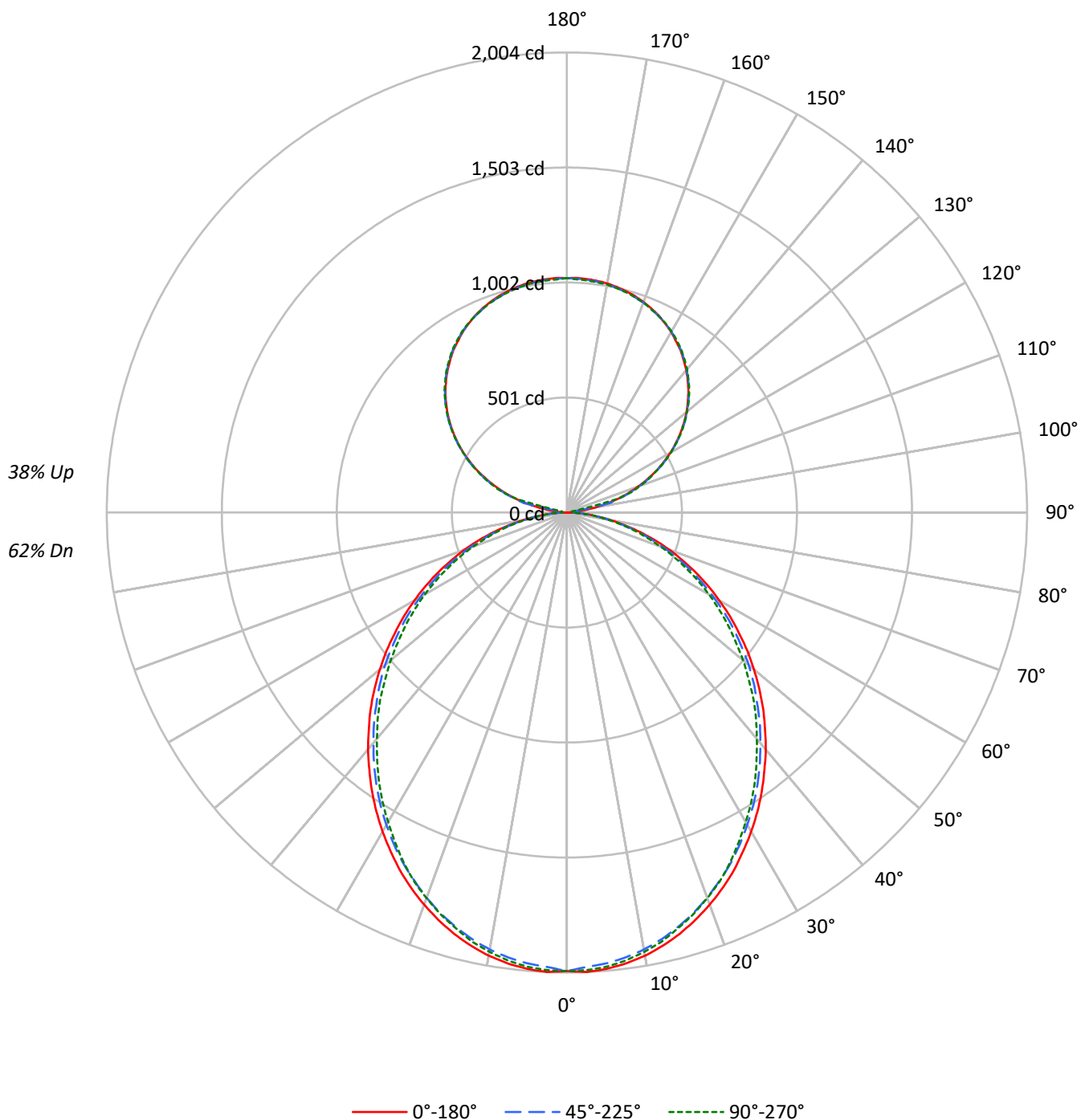
Lumens per Lamp: N/A  
Luminaire Lumens: 8287.0 lumens  
Efficiency: N/A  
Efficacy: 100.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 82.4  
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 |    |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 110 | 110 | 110 | 110 | 103 | 103 | 103 | 103 | 90 | 90 | 90 | 78 | 78 | 78 | 67 | 67 | 67 | 67 | 67 | 62 |
| 1   | 100 | 96  | 92  | 88  | 94  | 90  | 87  | 83  | 79 | 76 | 74 | 69 | 67 | 65 | 59 | 58 | 57 | 57 | 57 | 52 |
| 2   | 91  | 84  | 78  | 72  | 85  | 79  | 73  | 68  | 69 | 65 | 61 | 60 | 57 | 54 | 52 | 50 | 48 | 48 | 48 | 44 |
| 3   | 83  | 74  | 66  | 60  | 78  | 69  | 63  | 57  | 61 | 56 | 51 | 53 | 49 | 46 | 46 | 43 | 41 | 41 | 41 | 37 |
| 4   | 76  | 65  | 57  | 51  | 71  | 61  | 54  | 49  | 54 | 48 | 44 | 48 | 43 | 39 | 41 | 38 | 35 | 35 | 35 | 32 |
| 5   | 70  | 58  | 50  | 44  | 65  | 55  | 47  | 42  | 49 | 43 | 38 | 43 | 38 | 34 | 37 | 33 | 30 | 30 | 30 | 27 |
| 6   | 65  | 52  | 44  | 38  | 60  | 49  | 42  | 36  | 44 | 38 | 33 | 39 | 34 | 30 | 34 | 30 | 27 | 27 | 27 | 24 |
| 7   | 60  | 47  | 39  | 33  | 56  | 45  | 37  | 32  | 40 | 34 | 29 | 35 | 30 | 27 | 31 | 27 | 24 | 24 | 24 | 21 |
| 8   | 56  | 43  | 35  | 30  | 52  | 41  | 34  | 28  | 36 | 30 | 26 | 32 | 27 | 24 | 28 | 24 | 21 | 21 | 21 | 19 |
| 9   | 52  | 39  | 32  | 27  | 49  | 37  | 30  | 26  | 33 | 28 | 23 | 30 | 25 | 21 | 26 | 22 | 19 | 19 | 19 | 17 |
| 10  | 48  | 36  | 29  | 24  | 45  | 34  | 28  | 23  | 31 | 25 | 21 | 27 | 23 | 19 | 24 | 20 | 18 | 18 | 18 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16285 | 16285 | 16285 |
| 5°  | 16299 | 15817 | 15836 |
| 10° | 16161 | 15378 | 15270 |
| 15° | 15929 | 14856 | 14632 |
| 20° | 15633 | 14291 | 13971 |
| 25° | 15300 | 13695 | 13259 |
| 30° | 14899 | 13050 | 12478 |
| 35° | 14482 | 12389 | 11722 |
| 40° | 14048 | 11678 | 10919 |
| 45° | 13593 | 10965 | 10169 |
| 50° | 13090 | 10275 | 9337  |
| 55° | 12542 | 9467  | 8511  |
| 60° | 11982 | 8583  | 7650  |
| 65° | 11341 | 7671  | 6681  |
| 70° | 10604 | 6572  | 5643  |
| 75° | 9501  | 5298  | 4518  |
| 80° | 8094  | 3829  | 3178  |
| 85° | 6287  | 2132  | 1710  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13593 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 188.2  | 2.3       |
| 10°-20°   | 530.3  | 6.4       |
| 20°-30°   | 780.5  | 9.4       |
| 30°-40°   | 907.3  | 10.9      |
| 40°-50°   | 907.2  | 10.9      |
| 50°-60°   | 793.4  | 9.6       |
| 60°-70°   | 589.1  | 7.1       |
| 70°-80°   | 334.2  | 4.0       |
| 80°-90°   | 97.8   | 1.2       |
| 90°-100°  | 33.9   | 0.4       |
| 100°-110° | 223.2  | 2.7       |
| 110°-120° | 426.1  | 5.1       |
| 120°-130° | 541.0  | 6.5       |
| 130°-140° | 578.7  | 7.0       |
| 140°-150° | 541.2  | 6.5       |
| 150°-160° | 436.4  | 5.3       |
| 160°-170° | 281.4  | 3.4       |
| 170°-180° | 97.0   | 1.2       |
| 0°-30°    | 1499.1 | 18.1      |
| 0°-40°    | 2406.3 | 29.0      |
| 0°-60°    | 4107.0 | 49.6      |
| 0°-90°    | 5128.1 | 61.9      |
| 90°-120°  | 683.2  | 8.2       |
| 90°-150°  | 2344.0 | 28.3      |
| 90°-180°  | 3159.0 | 38.1      |
| 0°-180°   | 8287.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1997 | 1997  | 1997 | 1997  | 1997 |      |
| 5°   | 1996 | 1989  | 1972 | 1989  | 1986 | 189  |
| 15°  | 1900 | 1893  | 1869 | 1879  | 1874 | 535  |
| 25°  | 1720 | 1709  | 1687 | 1688  | 1682 | 792  |
| 35°  | 1480 | 1469  | 1447 | 1435  | 1427 | 926  |
| 45°  | 1208 | 1197  | 1171 | 1154  | 1149 | 931  |
| 55°  | 914  | 909   | 886  | 867   | 858  | 818  |
| 65°  | 619  | 611   | 595  | 579   | 571  | 613  |
| 75°  | 330  | 322   | 314  | 307   | 306  | 350  |
| 85°  | 86   | 86    | 83   | 83    | 82   | 93   |
| 90°  | 2    | 11    | 17   | 21    | 23   | 8    |
| 95°  | 42   | 16    | 17   | 21    | 22   | 52   |
| 105° | 230  | 234   | 238  | 245   | 218  | 241  |
| 115° | 429  | 431   | 431  | 432   | 432  | 422  |
| 125° | 603  | 606   | 605  | 607   | 608  | 539  |
| 135° | 748  | 748   | 751  | 752   | 754  | 577  |
| 145° | 863  | 865   | 865  | 866   | 867  | 539  |
| 155° | 946  | 947   | 944  | 948   | 945  | 436  |
| 165° | 998  | 994   | 994  | 1000  | 993  | 282  |
| 175° | 1021 | 1016  | 1017 | 1024  | 1015 | 97   |
| 180° | 1021 | 1021  | 1021 | 1021  | 1021 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1997.1 | 1997.1 | 1997.1 | 1997.1 | 1997.1 |
| 2.5°   | 2003.5 | 1998.7 | 1981.1 | 1997.1 | 1995.5 |
| 5°     | 1995.5 | 1989.1 | 1971.5 | 1989.1 | 1985.9 |
| 7.5°   | 1981.1 | 1974.7 | 1955.5 | 1969.9 | 1968.3 |
| 10°    | 1960.3 | 1953.9 | 1933.1 | 1945.9 | 1942.7 |
| 12.5°  | 1933.1 | 1926.7 | 1904.3 | 1918.7 | 1913.9 |
| 15°    | 1899.5 | 1893.1 | 1869.1 | 1878.7 | 1873.9 |
| 17.5°  | 1861.1 | 1853.1 | 1830.7 | 1837.1 | 1833.9 |
| 20°    | 1817.9 | 1809.9 | 1785.9 | 1790.7 | 1787.5 |
| 22.5°  | 1771.5 | 1760.3 | 1736.3 | 1745.9 | 1739.5 |
| 25°    | 1720.3 | 1709.1 | 1686.7 | 1688.3 | 1681.9 |
| 27.5°  | 1662.7 | 1651.5 | 1630.7 | 1627.5 | 1619.5 |
| 30°    | 1605.1 | 1592.3 | 1571.5 | 1565.1 | 1557.1 |
| 32.5°  | 1544.2 | 1533.0 | 1510.6 | 1502.6 | 1494.6 |
| 35°    | 1480.2 | 1469.0 | 1446.6 | 1435.4 | 1427.4 |
| 37.5°  | 1413.0 | 1403.4 | 1379.4 | 1368.2 | 1357.0 |
| 40°    | 1347.4 | 1334.6 | 1310.6 | 1294.6 | 1286.6 |
| 42.5°  | 1277.0 | 1270.6 | 1243.4 | 1224.2 | 1219.4 |
| 45°    | 1208.2 | 1197.0 | 1171.4 | 1153.8 | 1149.0 |
| 47.5°  | 1136.2 | 1128.2 | 1104.2 | 1085.0 | 1072.2 |
| 50°    | 1062.6 | 1056.2 | 1033.8 | 1011.4 | 1001.8 |
| 52.5°  | 990.6  | 982.6  | 958.6  | 939.4  | 926.5  |
| 55°    | 913.7  | 908.9  | 886.5  | 867.3  | 857.7  |
| 57.5°  | 841.7  | 836.9  | 814.5  | 795.3  | 785.7  |
| 60°    | 766.5  | 758.5  | 737.7  | 723.3  | 715.3  |
| 62.5°  | 692.9  | 686.5  | 664.1  | 651.3  | 643.3  |
| 65°    | 619.3  | 611.3  | 595.3  | 579.3  | 571.3  |
| 67.5°  | 544.1  | 537.7  | 521.7  | 505.7  | 504.1  |
| 70°    | 475.3  | 464.1  | 451.3  | 438.5  | 433.7  |
| 72.5°  | 401.7  | 390.5  | 380.9  | 371.3  | 366.5  |
| 75°    | 329.7  | 321.7  | 313.7  | 307.2  | 305.6  |
| 77.5°  | 259.2  | 256.0  | 248.0  | 246.4  | 241.6  |
| 80°    | 196.8  | 192.0  | 188.8  | 185.6  | 184.0  |
| 82.5°  | 136.0  | 134.4  | 134.4  | 132.8  | 131.2  |
| 85°    | 86.4   | 86.4   | 83.2   | 83.2   | 81.6   |
| 87.5°  | 41.6   | 40.0   | 38.4   | 38.4   | 38.4   |
| 90°    | 2.3    | 10.7   | 16.8   | 21.4   | 22.9   |
| 92.5°  | 11.5   | 9.9    | 16.0   | 20.6   | 20.6   |
| 95°    | 42.0   | 16.0   | 16.8   | 21.4   | 22.1   |
| 97.5°  | 80.2   | 97.0   | 16.8   | 20.6   | 21.4   |
| 100°   | 125.2  | 139.0  | 33.6   | 20.6   | 21.4   |
| 102.5° | 175.6  | 184.8  | 193.9  | 22.1   | 22.1   |
| 105°   | 229.8  | 234.4  | 238.2  | 245.1  | 217.6  |
| 107.5° | 279.5  | 281.7  | 287.1  | 290.9  | 294.0  |
| 110°   | 329.9  | 332.1  | 336.7  | 338.2  | 340.5  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 378.7  | 383.3  | 384.8  | 384.1  | 387.1  |
| 115°   | 429.1  | 431.4  | 430.6  | 432.2  | 432.2  |
| 117.5° | 474.2  | 477.2  | 479.5  | 478.7  | 478.7  |
| 120°   | 520.0  | 523.0  | 522.3  | 523.8  | 522.3  |
| 122.5° | 562.7  | 564.3  | 565.8  | 566.5  | 565.0  |
| 125°   | 603.2  | 606.3  | 604.7  | 607.0  | 607.8  |
| 127.5° | 642.1  | 642.9  | 646.7  | 646.0  | 645.2  |
| 130°   | 679.6  | 680.3  | 682.6  | 683.4  | 683.4  |
| 132.5° | 713.9  | 715.4  | 718.5  | 719.3  | 718.5  |
| 135°   | 748.3  | 747.5  | 750.6  | 752.1  | 753.6  |
| 137.5° | 778.8  | 778.8  | 782.6  | 784.2  | 783.4  |
| 140°   | 808.6  | 810.1  | 811.6  | 813.9  | 814.7  |
| 142.5° | 835.3  | 838.4  | 839.1  | 840.7  | 840.7  |
| 145°   | 862.8  | 865.1  | 865.1  | 865.9  | 867.4  |
| 147.5° | 884.2  | 888.8  | 888.0  | 888.8  | 889.5  |
| 150°   | 907.9  | 910.9  | 910.1  | 910.1  | 910.9  |
| 152.5° | 927.7  | 930.0  | 928.5  | 930.0  | 929.2  |
| 155°   | 946.0  | 946.8  | 944.5  | 947.6  | 945.3  |
| 157.5° | 962.1  | 962.1  | 959.0  | 962.8  | 959.0  |
| 160°   | 975.8  | 973.5  | 972.8  | 977.3  | 972.8  |
| 162.5° | 988.0  | 985.0  | 984.2  | 988.8  | 983.4  |
| 165°   | 998.0  | 994.1  | 994.1  | 1000.2 | 993.4  |
| 167.5° | 1006.3 | 1002.5 | 1001.8 | 1008.6 | 1001.0 |
| 170°   | 1013.2 | 1008.6 | 1009.4 | 1015.5 | 1007.9 |
| 172.5° | 1017.8 | 1013.2 | 1014.0 | 1020.1 | 1011.7 |
| 175°   | 1020.9 | 1016.3 | 1017.0 | 1023.9 | 1014.7 |
| 177.5° | 1023.1 | 1017.8 | 1019.3 | 1025.4 | 1016.3 |
| 180°   | 1020.9 | 1020.9 | 1020.9 | 1020.9 | 1020.9 |

(END OF REPORT)