

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: P1026131

Luminaire Tested: S124RDIP-B1195D1205UB40-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026131  
REPORT IS A COMBINATION OF REPORTS P999091 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B1195D1205UB40-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 4000K BioUP LEDs {m-DER=0.865}  
{m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

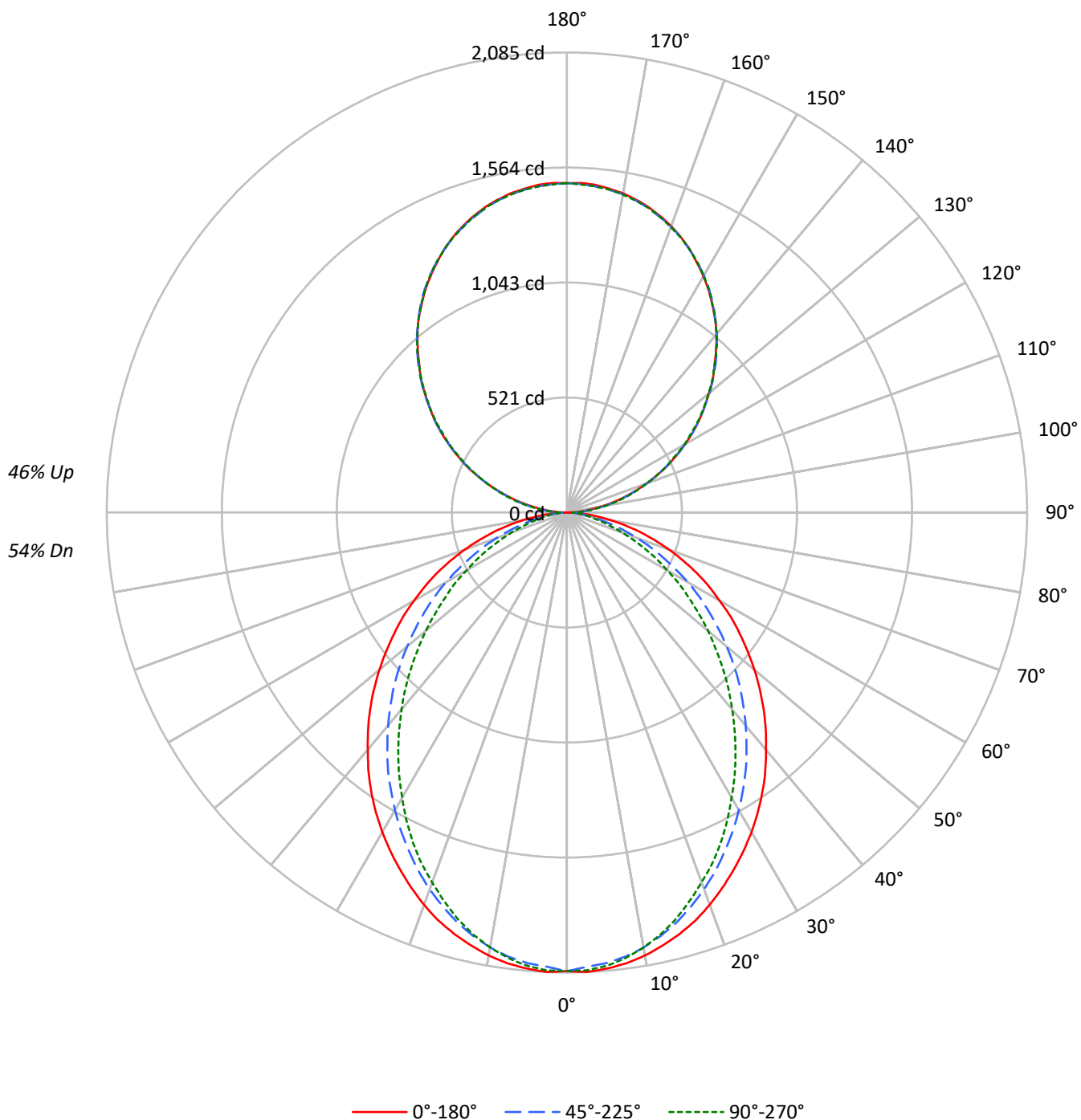
Lumens per Lamp: N/A  
Luminaire Lumens: 8946.9 lumens  
Efficiency: N/A  
Efficacy: 92.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 96.3  
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   | 108 | 108 | 108 | 108 | 100 | 100 | 100 | 100 | 85 | 85 | 85 | 72 | 72 | 72 | 60 | 60 | 60 |
| 1   | 99  | 95  | 91  | 87  | 92  | 88  | 85  | 82  | 75 | 73 | 71 | 64 | 62 | 61 | 53 | 52 | 51 |
| 2   | 90  | 83  | 77  | 72  | 83  | 77  | 72  | 68  | 66 | 62 | 59 | 56 | 53 | 51 | 47 | 45 | 43 |
| 3   | 83  | 73  | 66  | 60  | 76  | 68  | 62  | 57  | 59 | 54 | 50 | 50 | 46 | 43 | 42 | 39 | 37 |
| 4   | 76  | 65  | 57  | 51  | 70  | 61  | 54  | 48  | 52 | 47 | 43 | 45 | 41 | 37 | 38 | 35 | 32 |
| 5   | 70  | 58  | 50  | 44  | 64  | 54  | 47  | 42  | 47 | 41 | 37 | 40 | 36 | 33 | 34 | 31 | 28 |
| 6   | 64  | 52  | 44  | 38  | 59  | 49  | 42  | 36  | 42 | 37 | 33 | 37 | 32 | 29 | 31 | 28 | 25 |
| 7   | 59  | 47  | 39  | 34  | 55  | 44  | 37  | 32  | 39 | 33 | 29 | 33 | 29 | 25 | 28 | 25 | 22 |
| 8   | 55  | 43  | 35  | 30  | 51  | 40  | 33  | 28  | 35 | 30 | 26 | 31 | 26 | 23 | 26 | 23 | 20 |
| 9   | 51  | 39  | 32  | 27  | 48  | 37  | 30  | 26  | 32 | 27 | 23 | 28 | 24 | 21 | 24 | 21 | 18 |
| 10  | 48  | 36  | 29  | 24  | 45  | 34  | 27  | 23  | 30 | 25 | 21 | 26 | 22 | 19 | 22 | 19 | 17 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16947 | 16947 | 16947 |
| 5°  | 16949 | 16444 | 16445 |
| 10° | 16805 | 15925 | 15736 |
| 15° | 16574 | 15279 | 14898 |
| 20° | 16271 | 14542 | 13943 |
| 25° | 15893 | 13747 | 13009 |
| 30° | 15524 | 12937 | 11962 |
| 35° | 15117 | 12115 | 10938 |
| 40° | 14633 | 11230 | 9886  |
| 45° | 14180 | 10353 | 8844  |
| 50° | 13663 | 9394  | 7786  |
| 55° | 13106 | 8412  | 6695  |
| 60° | 12487 | 7368  | 5616  |
| 65° | 11891 | 6172  | 4579  |
| 70° | 11041 | 4913  | 3498  |
| 75° | 9951  | 3573  | 2447  |
| 80° | 8312  | 2194  | 1758  |
| 85° | 6251  | 1263  | 966   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 14180 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 195.4  | 2.2       |
| 10°-20°   | 544.9  | 6.1       |
| 20°-30°   | 786.7  | 8.8       |
| 30°-40°   | 891.6  | 10.0      |
| 40°-50°   | 860.8  | 9.6       |
| 50°-60°   | 715.7  | 8.0       |
| 60°-70°   | 494.0  | 5.5       |
| 70°-80°   | 249.6  | 2.8       |
| 80°-90°   | 66.6   | 0.7       |
| 90°-100°  | 97.3   | 1.1       |
| 100°-110° | 291.4  | 3.3       |
| 110°-120° | 495.1  | 5.5       |
| 120°-130° | 652.9  | 7.3       |
| 130°-140° | 733.4  | 8.2       |
| 140°-150° | 720.8  | 8.1       |
| 150°-160° | 606.2  | 6.8       |
| 160°-170° | 403.4  | 4.5       |
| 170°-180° | 141.2  | 1.6       |
| 0°-30°    | 1527.0 | 17.1      |
| 0°-40°    | 2418.5 | 27.0      |
| 0°-60°    | 3995.0 | 44.7      |
| 0°-90°    | 4805.2 | 53.7      |
| 90°-120°  | 883.8  | 9.9       |
| 90°-150°  | 2990.9 | 33.4      |
| 90°-180°  | 4142.0 | 46.3      |
| 0°-180°   | 8946.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2078 | 2078  | 2078 | 2078  | 2078 |      |
| 5°   | 2075 | 2069  | 2050 | 2066  | 2062 | 197  |
| 15°  | 1976 | 1962  | 1922 | 1919  | 1908 | 557  |
| 25°  | 1787 | 1758  | 1693 | 1666  | 1650 | 823  |
| 35°  | 1545 | 1494  | 1415 | 1361  | 1332 | 966  |
| 45°  | 1260 | 1201  | 1106 | 1028  | 999  | 972  |
| 55°  | 955  | 891   | 788  | 705   | 675  | 854  |
| 65°  | 649  | 581   | 479  | 411   | 392  | 641  |
| 75°  | 345  | 286   | 212  | 175   | 166  | 364  |
| 85°  | 86   | 54    | 49   | 46    | 46   | 94   |
| 90°  | 4    | 16    | 25   | 32    | 35   | 10   |
| 95°  | 69   | 80    | 88   | 91    | 91   | 75   |
| 105° | 269  | 270   | 275  | 278   | 282  | 285  |
| 115° | 503  | 503   | 501  | 500   | 499  | 496  |
| 125° | 733  | 733   | 732  | 730   | 727  | 653  |
| 135° | 946  | 952   | 952  | 950   | 947  | 731  |
| 145° | 1149 | 1153  | 1154 | 1153  | 1150 | 719  |
| 155° | 1316 | 1316  | 1315 | 1320  | 1315 | 606  |
| 165° | 1433 | 1429  | 1427 | 1434  | 1429 | 404  |
| 175° | 1490 | 1485  | 1484 | 1492  | 1484 | 142  |
| 180° | 1493 | 1493  | 1493 | 1493  | 1493 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2078.2 | 2078.2 | 2078.2 | 2078.2 | 2078.2 |
| 2.5°   | 2084.6 | 2078.2 | 2060.7 | 2078.2 | 2076.7 |
| 5°     | 2075.1 | 2068.7 | 2049.6 | 2065.5 | 2062.3 |
| 7.5°   | 2060.7 | 2054.4 | 2030.5 | 2041.6 | 2036.9 |
| 10°    | 2038.5 | 2030.5 | 2001.9 | 2008.2 | 2001.9 |
| 12.5°  | 2009.8 | 2000.3 | 1965.3 | 1968.4 | 1958.9 |
| 15°    | 1976.4 | 1962.1 | 1922.3 | 1919.1 | 1908.0 |
| 17.5°  | 1938.2 | 1917.5 | 1871.4 | 1863.4 | 1847.5 |
| 20°    | 1892.1 | 1871.4 | 1817.3 | 1804.5 | 1783.9 |
| 22.5°  | 1841.1 | 1817.3 | 1758.4 | 1737.7 | 1721.8 |
| 25°    | 1787.0 | 1758.4 | 1693.1 | 1666.1 | 1650.2 |
| 27.5°  | 1731.3 | 1696.3 | 1627.9 | 1596.1 | 1573.8 |
| 30°    | 1672.5 | 1632.7 | 1557.9 | 1518.1 | 1492.6 |
| 32.5°  | 1610.4 | 1564.3 | 1486.3 | 1438.5 | 1414.7 |
| 35°    | 1545.2 | 1494.2 | 1414.7 | 1360.6 | 1331.9 |
| 37.5°  | 1476.7 | 1424.2 | 1336.7 | 1277.8 | 1249.2 |
| 40°    | 1403.5 | 1351.0 | 1260.3 | 1193.5 | 1164.8 |
| 42.5°  | 1333.5 | 1277.8 | 1182.3 | 1113.9 | 1083.7 |
| 45°    | 1260.3 | 1201.4 | 1106.0 | 1028.0 | 999.3  |
| 47.5°  | 1185.5 | 1125.1 | 1026.4 | 945.2  | 913.4  |
| 50°    | 1109.1 | 1047.1 | 945.2  | 865.7  | 835.4  |
| 52.5°  | 1031.2 | 970.7  | 865.7  | 784.5  | 752.7  |
| 55°    | 954.8  | 891.1  | 787.7  | 704.9  | 674.7  |
| 57.5°  | 880.0  | 813.2  | 711.3  | 627.0  | 604.7  |
| 60°    | 798.8  | 735.2  | 633.3  | 550.6  | 525.1  |
| 62.5°  | 725.6  | 658.8  | 553.8  | 479.0  | 459.9  |
| 65°    | 649.3  | 580.8  | 479.0  | 410.6  | 391.5  |
| 67.5°  | 569.7  | 504.4  | 409.0  | 348.5  | 326.2  |
| 70°    | 494.9  | 428.1  | 337.4  | 284.8  | 268.9  |
| 72.5°  | 415.3  | 356.5  | 272.1  | 229.1  | 214.8  |
| 75°    | 345.3  | 286.4  | 211.6  | 175.0  | 165.5  |
| 77.5°  | 272.1  | 221.2  | 157.5  | 132.1  | 128.9  |
| 80°    | 202.1  | 155.9  | 108.2  | 103.4  | 101.8  |
| 82.5°  | 141.6  | 100.3  | 78.0   | 74.8   | 73.2   |
| 85°    | 85.9   | 54.1   | 49.3   | 46.1   | 46.1   |
| 87.5°  | 36.6   | 23.9   | 22.3   | 20.7   | 22.3   |
| 90°    | 3.5    | 16.2   | 25.4   | 32.3   | 34.6   |
| 92.5°  | 30.0   | 45.0   | 50.8   | 54.3   | 55.4   |
| 95°    | 69.3   | 79.7   | 87.7   | 91.2   | 91.2   |
| 97.5°  | 110.8  | 120.1  | 129.3  | 133.9  | 133.9  |
| 100°   | 161.6  | 166.2  | 176.6  | 178.9  | 178.9  |
| 102.5° | 214.7  | 215.9  | 225.1  | 228.6  | 229.7  |
| 105°   | 269.0  | 270.1  | 274.8  | 278.2  | 281.7  |
| 107.5° | 325.6  | 326.7  | 327.9  | 332.5  | 331.3  |
| 110°   | 383.3  | 385.6  | 384.4  | 382.1  | 385.6  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 443.3  | 443.3  | 441.0  | 441.0  | 441.0  |
| 115°   | 503.4  | 503.4  | 501.0  | 499.9  | 498.7  |
| 117.5° | 559.9  | 559.9  | 558.8  | 555.3  | 551.8  |
| 120°   | 616.5  | 621.1  | 617.6  | 611.9  | 614.2  |
| 122.5° | 675.4  | 676.5  | 675.4  | 671.9  | 666.1  |
| 125°   | 733.1  | 733.1  | 731.9  | 729.6  | 727.3  |
| 127.5° | 785.0  | 788.5  | 786.2  | 783.9  | 782.7  |
| 130°   | 840.5  | 843.9  | 843.9  | 841.6  | 837.0  |
| 132.5° | 897.0  | 899.3  | 898.2  | 895.9  | 894.7  |
| 135°   | 945.5  | 952.4  | 952.4  | 950.1  | 946.7  |
| 137.5° | 999.8  | 1003.2 | 1005.6 | 1002.1 | 1003.2 |
| 140°   | 1054.0 | 1056.3 | 1056.3 | 1055.2 | 1054.0 |
| 142.5° | 1103.7 | 1106.0 | 1104.8 | 1104.8 | 1104.8 |
| 145°   | 1148.7 | 1153.3 | 1154.5 | 1153.3 | 1149.9 |
| 147.5° | 1194.9 | 1200.7 | 1199.5 | 1198.3 | 1197.2 |
| 150°   | 1236.4 | 1241.1 | 1241.1 | 1241.1 | 1239.9 |
| 152.5° | 1275.7 | 1278.0 | 1279.2 | 1282.6 | 1279.2 |
| 155°   | 1316.1 | 1316.1 | 1315.0 | 1319.6 | 1315.0 |
| 157.5° | 1350.7 | 1348.4 | 1348.4 | 1351.9 | 1348.4 |
| 160°   | 1380.8 | 1379.6 | 1378.4 | 1381.9 | 1376.1 |
| 162.5° | 1408.5 | 1405.0 | 1403.8 | 1410.8 | 1405.0 |
| 165°   | 1432.7 | 1429.2 | 1426.9 | 1433.9 | 1429.2 |
| 167.5° | 1452.3 | 1447.7 | 1447.7 | 1454.6 | 1447.7 |
| 170°   | 1468.5 | 1462.7 | 1463.9 | 1470.8 | 1462.7 |
| 172.5° | 1480.0 | 1475.4 | 1475.4 | 1483.5 | 1475.4 |
| 175°   | 1490.4 | 1484.7 | 1483.5 | 1491.6 | 1483.5 |
| 177.5° | 1495.1 | 1489.3 | 1489.3 | 1497.4 | 1488.1 |
| 180°   | 1492.7 | 1492.7 | 1492.7 | 1492.7 | 1492.7 |

(END OF REPORT)