

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: P1026137

Luminaire Tested: S124RDIP-B1195D1205UB50-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026137  
REPORT IS A COMBINATION OF REPORTS P999097 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B1195D1205UB50-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

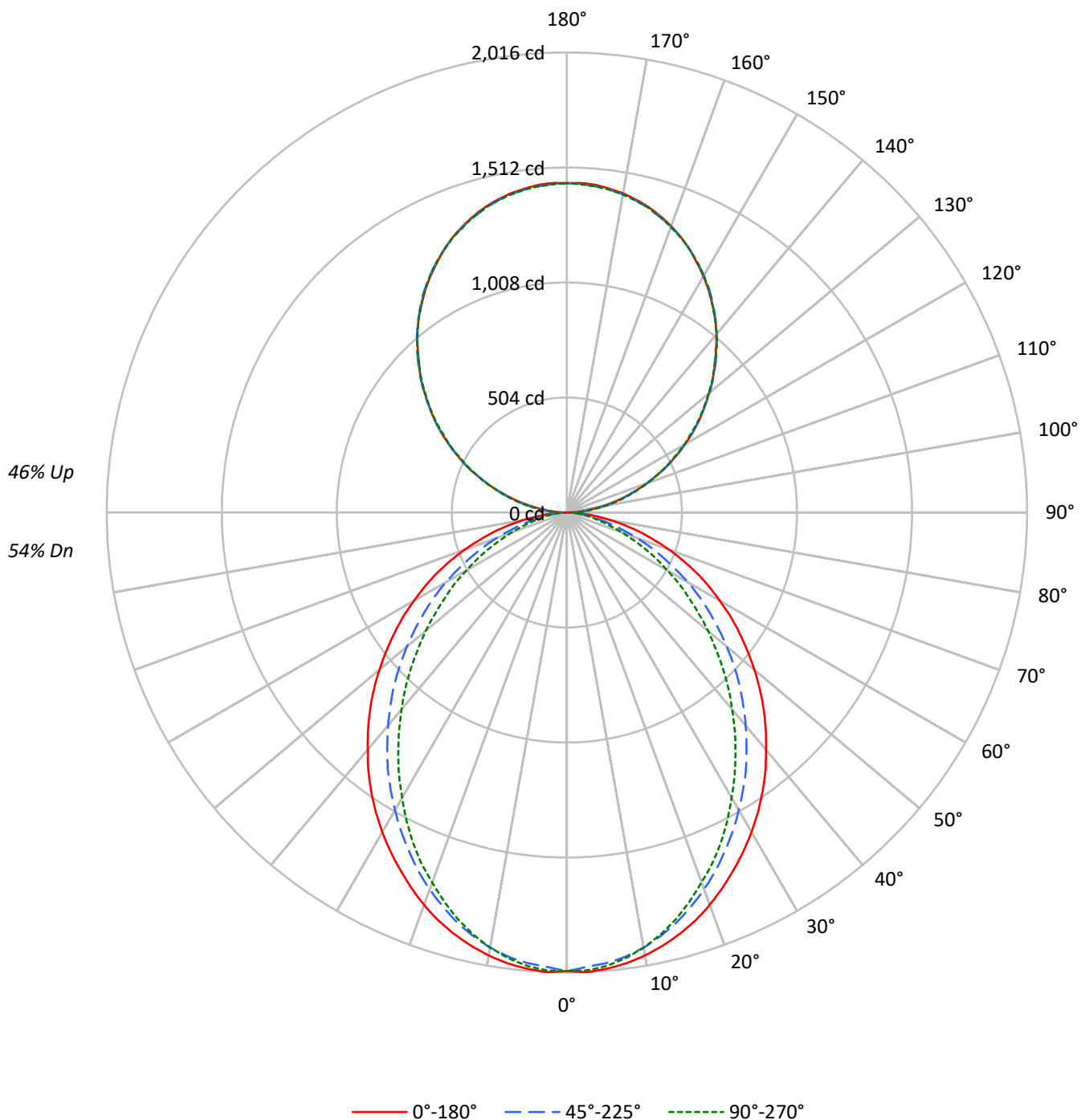
Lumens per Lamp: N/A  
Luminaire Lumens: 8652.0 lumens  
Efficiency: N/A  
Efficacy: 89.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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°  | 16390 | 16390 | 16390 |
| 5°  | 16391 | 15903 | 15905 |
| 10° | 16252 | 15401 | 15218 |
| 15° | 16029 | 14776 | 14408 |
| 20° | 15735 | 14064 | 13484 |
| 25° | 15370 | 13295 | 12581 |
| 30° | 15013 | 12511 | 11568 |
| 35° | 14620 | 11716 | 10578 |
| 40° | 14151 | 10860 | 9561  |
| 45° | 13713 | 10012 | 8554  |
| 50° | 13213 | 9085  | 7530  |
| 55° | 12675 | 8135  | 6475  |
| 60° | 12077 | 7126  | 5432  |
| 65° | 11499 | 5969  | 4428  |
| 70° | 10677 | 4752  | 3384  |
| 75° | 9625  | 3457  | 2367  |
| 80° | 8037  | 2121  | 1701  |
| 85° | 6047  | 1222  | 935   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 13713 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 189.0  | 2.2       |
| 10°-20°   | 527.0  | 6.1       |
| 20°-30°   | 760.8  | 8.8       |
| 30°-40°   | 862.2  | 10.0      |
| 40°-50°   | 832.5  | 9.6       |
| 50°-60°   | 692.1  | 8.0       |
| 60°-70°   | 477.7  | 5.5       |
| 70°-80°   | 241.4  | 2.8       |
| 80°-90°   | 64.4   | 0.7       |
| 90°-100°  | 94.1   | 1.1       |
| 100°-110° | 281.8  | 3.3       |
| 110°-120° | 478.7  | 5.5       |
| 120°-130° | 631.4  | 7.3       |
| 130°-140° | 709.1  | 8.2       |
| 140°-150° | 697.0  | 8.1       |
| 150°-160° | 586.2  | 6.8       |
| 160°-170° | 390.0  | 4.5       |
| 170°-180° | 136.6  | 1.6       |
| 0°-30°    | 1476.7 | 17.1      |
| 0°-40°    | 2339.0 | 27.0      |
| 0°-60°    | 3863.6 | 44.7      |
| 0°-90°    | 4647.1 | 53.7      |
| 90°-120°  | 854.6  | 9.9       |
| 90°-150°  | 2892.1 | 33.4      |
| 90°-180°  | 4005.0 | 46.3      |
| 0°-180°   | 8652.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 2010 | 2010  | 2010 | 2010  | 2010 |      |
| 5°   | 2007 | 2001  | 1982 | 1998  | 1994 | 190  |
| 15°  | 1911 | 1898  | 1859 | 1856  | 1845 | 539  |
| 25°  | 1728 | 1700  | 1637 | 1611  | 1596 | 796  |
| 35°  | 1494 | 1445  | 1368 | 1316  | 1288 | 934  |
| 45°  | 1219 | 1162  | 1070 | 994   | 966  | 940  |
| 55°  | 923  | 862   | 762  | 682   | 652  | 826  |
| 65°  | 628  | 562   | 463  | 397   | 379  | 620  |
| 75°  | 334  | 277   | 205  | 169   | 160  | 352  |
| 85°  | 83   | 52    | 48   | 45    | 45   | 91   |
| 90°  | 3    | 16    | 25   | 31    | 34   | 10   |
| 95°  | 67   | 77    | 85   | 88    | 88   | 73   |
| 105° | 260  | 261   | 266  | 269   | 272  | 276  |
| 115° | 487  | 487   | 484  | 483   | 482  | 480  |
| 125° | 709  | 709   | 708  | 706   | 703  | 632  |
| 135° | 914  | 921   | 921  | 919   | 915  | 707  |
| 145° | 1111 | 1115  | 1116 | 1115  | 1112 | 695  |
| 155° | 1273 | 1273  | 1272 | 1276  | 1272 | 586  |
| 165° | 1385 | 1382  | 1380 | 1386  | 1382 | 391  |
| 175° | 1441 | 1436  | 1434 | 1442  | 1434 | 137  |
| 180° | 1443 | 1443  | 1443 | 1443  | 1443 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 2009.9 | 2009.9 | 2009.9 | 2009.9 | 2009.9 |
| 2.5°   | 2016.0 | 2009.9 | 1992.9 | 2009.9 | 2008.3 |
| 5°     | 2006.8 | 2000.6 | 1982.2 | 1997.6 | 1994.5 |
| 7.5°   | 1992.9 | 1986.8 | 1963.7 | 1974.5 | 1969.8 |
| 10°    | 1971.4 | 1963.7 | 1936.0 | 1942.1 | 1936.0 |
| 12.5°  | 1943.7 | 1934.5 | 1900.6 | 1903.7 | 1894.4 |
| 15°    | 1911.4 | 1897.5 | 1859.0 | 1856.0 | 1845.2 |
| 17.5°  | 1874.4 | 1854.4 | 1809.8 | 1802.1 | 1786.7 |
| 20°    | 1829.8 | 1809.8 | 1757.5 | 1745.2 | 1725.2 |
| 22.5°  | 1780.6 | 1757.5 | 1700.5 | 1680.5 | 1665.1 |
| 25°    | 1728.2 | 1700.5 | 1637.4 | 1611.3 | 1595.9 |
| 27.5°  | 1674.4 | 1640.5 | 1574.3 | 1543.6 | 1522.0 |
| 30°    | 1617.4 | 1579.0 | 1506.6 | 1468.2 | 1443.5 |
| 32.5°  | 1557.4 | 1512.8 | 1437.4 | 1391.2 | 1368.1 |
| 35°    | 1494.3 | 1445.1 | 1368.1 | 1315.8 | 1288.1 |
| 37.5°  | 1428.1 | 1377.4 | 1292.7 | 1235.8 | 1208.1 |
| 40°    | 1357.3 | 1306.6 | 1218.8 | 1154.2 | 1126.5 |
| 42.5°  | 1289.6 | 1235.8 | 1143.4 | 1077.3 | 1048.0 |
| 45°    | 1218.8 | 1161.9 | 1069.6 | 994.2  | 966.5  |
| 47.5°  | 1146.5 | 1088.0 | 992.6  | 914.1  | 883.4  |
| 50°    | 1072.6 | 1012.6 | 914.1  | 837.2  | 807.9  |
| 52.5°  | 997.2  | 938.8  | 837.2  | 758.7  | 727.9  |
| 55°    | 923.4  | 861.8  | 761.8  | 681.8  | 652.5  |
| 57.5°  | 851.0  | 786.4  | 687.9  | 606.3  | 584.8  |
| 60°    | 772.6  | 711.0  | 612.5  | 532.5  | 507.9  |
| 62.5°  | 701.8  | 637.1  | 535.6  | 463.2  | 444.8  |
| 65°    | 627.9  | 561.7  | 463.2  | 397.0  | 378.6  |
| 67.5°  | 550.9  | 487.8  | 395.5  | 337.0  | 315.5  |
| 70°    | 478.6  | 414.0  | 326.3  | 275.5  | 260.1  |
| 72.5°  | 401.7  | 344.7  | 263.2  | 221.6  | 207.8  |
| 75°    | 334.0  | 277.0  | 204.7  | 169.3  | 160.1  |
| 77.5°  | 263.2  | 213.9  | 152.4  | 127.7  | 124.7  |
| 80°    | 195.4  | 150.8  | 104.6  | 100.0  | 98.5   |
| 82.5°  | 137.0  | 97.0   | 75.4   | 72.3   | 70.8   |
| 85°    | 83.1   | 52.3   | 47.7   | 44.6   | 44.6   |
| 87.5°  | 35.4   | 23.1   | 21.5   | 20.0   | 21.5   |
| 90°    | 3.3    | 15.6   | 24.6   | 31.3   | 33.5   |
| 92.5°  | 29.0   | 43.5   | 49.1   | 52.5   | 53.6   |
| 95°    | 67.0   | 77.0   | 84.8   | 88.2   | 88.2   |
| 97.5°  | 107.2  | 116.1  | 125.0  | 129.5  | 129.5  |
| 100°   | 156.3  | 160.8  | 170.8  | 173.0  | 173.0  |
| 102.5° | 207.6  | 208.8  | 217.7  | 221.0  | 222.1  |
| 105°   | 260.1  | 261.2  | 265.7  | 269.0  | 272.4  |
| 107.5° | 314.8  | 315.9  | 317.0  | 321.5  | 320.4  |
| 110°   | 370.6  | 372.9  | 371.7  | 369.5  | 372.9  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 428.7  | 428.7  | 426.4  | 426.4  | 426.4  |
| 115°   | 486.7  | 486.7  | 484.5  | 483.4  | 482.3  |
| 117.5° | 541.4  | 541.4  | 540.3  | 537.0  | 533.6  |
| 120°   | 596.1  | 600.6  | 597.2  | 591.7  | 593.9  |
| 122.5° | 653.0  | 654.2  | 653.0  | 649.7  | 644.1  |
| 125°   | 708.9  | 708.9  | 707.7  | 705.5  | 703.3  |
| 127.5° | 759.1  | 762.4  | 760.2  | 758.0  | 756.9  |
| 130°   | 812.7  | 816.0  | 816.0  | 813.8  | 809.3  |
| 132.5° | 867.4  | 869.6  | 868.5  | 866.3  | 865.1  |
| 135°   | 914.3  | 921.0  | 921.0  | 918.7  | 915.4  |
| 137.5° | 966.7  | 970.1  | 972.3  | 969.0  | 970.1  |
| 140°   | 1019.2 | 1021.4 | 1021.4 | 1020.3 | 1019.2 |
| 142.5° | 1067.2 | 1069.4 | 1068.3 | 1068.3 | 1068.3 |
| 145°   | 1110.7 | 1115.2 | 1116.3 | 1115.2 | 1111.9 |
| 147.5° | 1155.4 | 1161.0 | 1159.9 | 1158.7 | 1157.6 |
| 150°   | 1195.6 | 1200.0 | 1200.0 | 1200.0 | 1198.9 |
| 152.5° | 1233.5 | 1235.8 | 1236.9 | 1240.2 | 1236.9 |
| 155°   | 1272.6 | 1272.6 | 1271.5 | 1276.0 | 1271.5 |
| 157.5° | 1306.1 | 1303.9 | 1303.9 | 1307.2 | 1303.9 |
| 160°   | 1335.1 | 1334.0 | 1332.9 | 1336.2 | 1330.7 |
| 162.5° | 1361.9 | 1358.6 | 1357.4 | 1364.1 | 1358.6 |
| 165°   | 1385.4 | 1382.0 | 1379.8 | 1386.5 | 1382.0 |
| 167.5° | 1404.3 | 1399.9 | 1399.9 | 1406.6 | 1399.9 |
| 170°   | 1420.0 | 1414.4 | 1415.5 | 1422.2 | 1414.4 |
| 172.5° | 1431.1 | 1426.7 | 1426.7 | 1434.5 | 1426.7 |
| 175°   | 1441.2 | 1435.6 | 1434.5 | 1442.3 | 1434.5 |
| 177.5° | 1445.6 | 1440.1 | 1440.1 | 1447.9 | 1438.9 |
| 180°   | 1443.4 | 1443.4 | 1443.4 | 1443.4 | 1443.4 |

(END OF REPORT)