

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: P1013413

Luminaire Tested: S124RDIP-B795D1205UB2750-4F0-XX-W2A-F\_3500K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1013413  
REPORT IS A COMBINATION OF REPORTS P999672 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B795D1205UB2750-4F0-XX-W2A-F\_3500K  
Description: Define 4 Regressed Direct/Indirect Pendant with 3500K BioUP LEDs {m-DER=0.721}  
{m-EER=0.792}  
Light Source: -  
Ballast/Driver: -

**Summary**

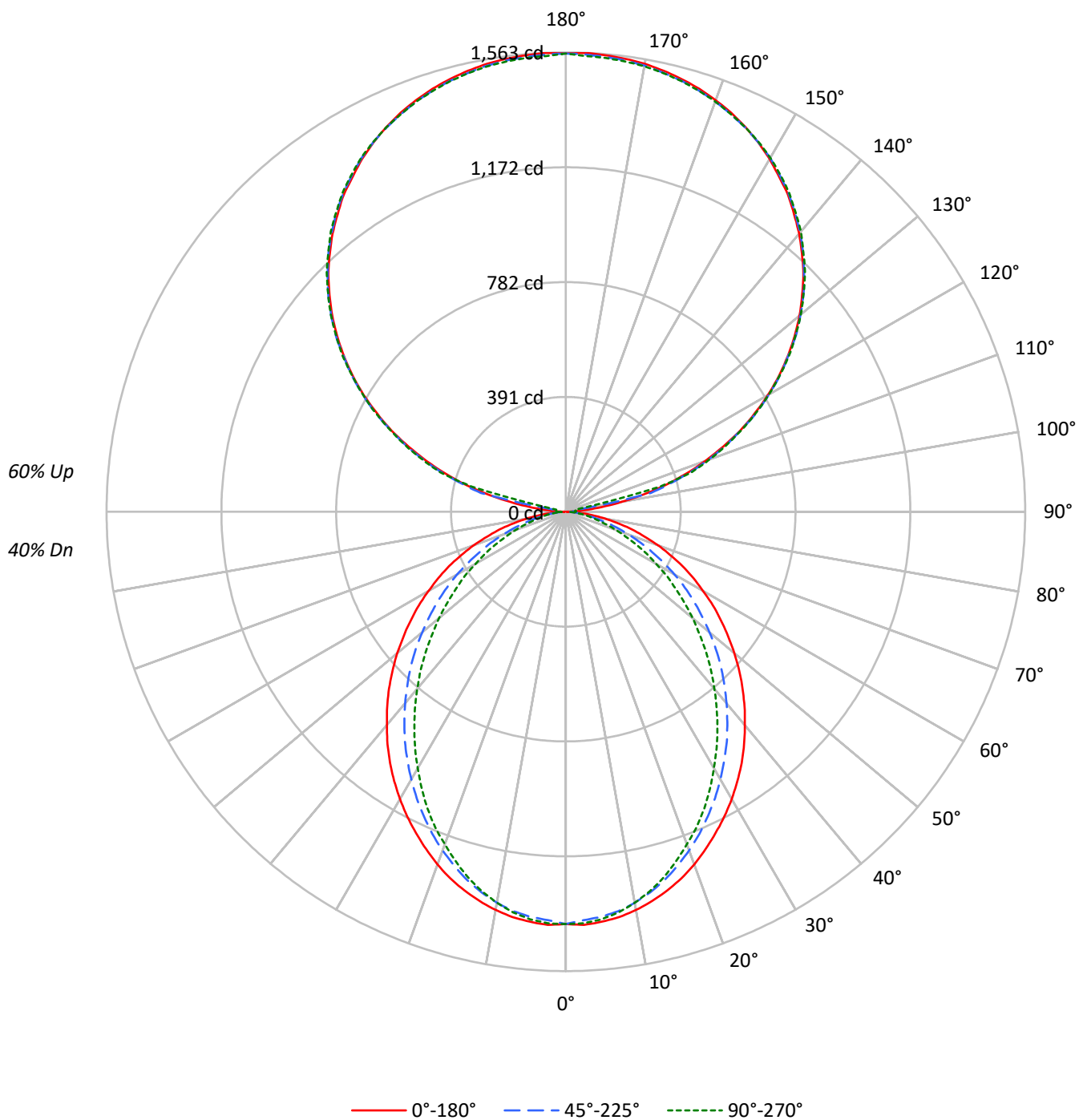
Lumens per Lamp: N/A  
Luminaire Lumens: 8069.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 70.9  
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   | 105 | 105 | 105 | 105 | 95 | 95 | 95 | 95 | 78 | 78 | 78 | 62 | 62 | 62 | 47 | 47 | 47 |
| 1   | 96  | 92  | 88  | 85  | 87 | 84 | 80 | 78 | 69 | 66 | 64 | 55 | 53 | 52 | 42 | 41 | 40 |
| 2   | 87  | 80  | 74  | 69  | 79 | 73 | 68 | 64 | 60 | 57 | 54 | 48 | 46 | 44 | 37 | 36 | 34 |
| 3   | 80  | 71  | 64  | 58  | 72 | 65 | 59 | 54 | 53 | 49 | 45 | 43 | 40 | 37 | 33 | 31 | 29 |
| 4   | 73  | 63  | 55  | 49  | 66 | 57 | 51 | 46 | 47 | 43 | 39 | 38 | 35 | 32 | 30 | 27 | 25 |
| 5   | 67  | 56  | 48  | 42  | 61 | 51 | 44 | 39 | 43 | 37 | 33 | 34 | 31 | 28 | 27 | 24 | 22 |
| 6   | 62  | 50  | 42  | 37  | 56 | 46 | 39 | 34 | 38 | 33 | 29 | 31 | 27 | 24 | 24 | 22 | 20 |
| 7   | 57  | 45  | 37  | 32  | 52 | 42 | 35 | 30 | 35 | 30 | 26 | 28 | 24 | 22 | 22 | 20 | 18 |
| 8   | 53  | 41  | 33  | 28  | 48 | 38 | 31 | 26 | 32 | 27 | 23 | 26 | 22 | 19 | 21 | 18 | 16 |
| 9   | 49  | 37  | 30  | 25  | 45 | 35 | 28 | 24 | 29 | 24 | 20 | 24 | 20 | 17 | 19 | 16 | 14 |
| 10  | 46  | 34  | 27  | 23  | 42 | 32 | 25 | 21 | 27 | 22 | 18 | 22 | 18 | 16 | 18 | 15 | 13 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11438 | 11438 | 11438 |
| 5°  | 11439 | 11098 | 11099 |
| 10° | 11342 | 10748 | 10620 |
| 15° | 11186 | 10312 | 10055 |
| 20° | 10982 | 9815  | 9410  |
| 25° | 10727 | 9279  | 8781  |
| 30° | 10478 | 8732  | 8073  |
| 35° | 10203 | 8177  | 7382  |
| 40° | 9877  | 7579  | 6672  |
| 45° | 9570  | 6987  | 5970  |
| 50° | 9222  | 6341  | 5256  |
| 55° | 8846  | 5677  | 4519  |
| 60° | 8429  | 4974  | 3790  |
| 65° | 8025  | 4166  | 3090  |
| 70° | 7451  | 3316  | 2361  |
| 75° | 6717  | 2412  | 1652  |
| 80° | 5610  | 1481  | 1187  |
| 85° | 4221  | 853   | 652   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 9570 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 131.9  | 1.6       |
| 10°-20°   | 367.8  | 4.6       |
| 20°-30°   | 530.9  | 6.6       |
| 30°-40°   | 601.7  | 7.5       |
| 40°-50°   | 581.0  | 7.2       |
| 50°-60°   | 483.0  | 6.0       |
| 60°-70°   | 333.4  | 4.1       |
| 70°-80°   | 168.5  | 2.1       |
| 80°-90°   | 46.0   | 0.6       |
| 90°-100°  | 51.8   | 0.6       |
| 100°-110° | 340.8  | 4.2       |
| 110°-120° | 650.9  | 8.1       |
| 120°-130° | 826.3  | 10.2      |
| 130°-140° | 883.9  | 11.0      |
| 140°-150° | 826.5  | 10.2      |
| 150°-160° | 666.5  | 8.3       |
| 160°-170° | 429.9  | 5.3       |
| 170°-180° | 148.2  | 1.8       |
| 0°-30°    | 1030.6 | 12.8      |
| 0°-40°    | 1632.3 | 20.2      |
| 0°-60°    | 2696.4 | 33.4      |
| 0°-90°    | 3244.2 | 40.2      |
| 90°-120°  | 1043.5 | 12.9      |
| 90°-150°  | 3580.2 | 44.4      |
| 90°-180°  | 4825.0 | 59.8      |
| 0°-180°   | 8069.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1403 | 1403  | 1403 | 1403  | 1403 |      |
| 5°   | 1400 | 1396  | 1383 | 1394  | 1392 | 133  |
| 15°  | 1334 | 1324  | 1297 | 1295  | 1288 | 376  |
| 25°  | 1206 | 1187  | 1143 | 1124  | 1114 | 556  |
| 35°  | 1043 | 1008  | 955  | 918   | 899  | 652  |
| 45°  | 851  | 811   | 746  | 694   | 674  | 656  |
| 55°  | 644  | 601   | 532  | 476   | 455  | 576  |
| 65°  | 438  | 392   | 323  | 277   | 264  | 433  |
| 75°  | 233  | 193   | 143  | 118   | 112  | 246  |
| 85°  | 58   | 36    | 33   | 31    | 31   | 64   |
| 90°  | 4    | 16    | 26   | 33    | 35   | 7    |
| 95°  | 64   | 24    | 26   | 33    | 34   | 79   |
| 105° | 351  | 358   | 364  | 374   | 332  | 367  |
| 115° | 655  | 659   | 658  | 660   | 660  | 645  |
| 125° | 921  | 926   | 924  | 927   | 928  | 823  |
| 135° | 1143 | 1142  | 1146 | 1149  | 1151 | 881  |
| 145° | 1318 | 1321  | 1321 | 1322  | 1325 | 823  |
| 155° | 1445 | 1446  | 1443 | 1447  | 1444 | 666  |
| 165° | 1524 | 1518  | 1518 | 1528  | 1517 | 431  |
| 175° | 1559 | 1552  | 1553 | 1564  | 1550 | 148  |
| 180° | 1559 | 1559  | 1559 | 1559  | 1559 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1402.7 | 1402.7 | 1402.7 | 1402.7 | 1402.7 |
| 2.5°   | 1407.0 | 1402.7 | 1390.8 | 1402.7 | 1401.6 |
| 5°     | 1400.5 | 1396.2 | 1383.3 | 1394.1 | 1391.9 |
| 7.5°   | 1390.8 | 1386.6 | 1370.4 | 1378.0 | 1374.7 |
| 10°    | 1375.8 | 1370.4 | 1351.1 | 1355.4 | 1351.1 |
| 12.5°  | 1356.5 | 1350.0 | 1326.4 | 1328.6 | 1322.1 |
| 15°    | 1333.9 | 1324.3 | 1297.4 | 1295.3 | 1287.7 |
| 17.5°  | 1308.1 | 1294.2 | 1263.0 | 1257.7 | 1246.9 |
| 20°    | 1277.0 | 1263.0 | 1226.5 | 1217.9 | 1204.0 |
| 22.5°  | 1242.6 | 1226.5 | 1186.8 | 1172.8 | 1162.1 |
| 25°    | 1206.1 | 1186.8 | 1142.8 | 1124.5 | 1113.8 |
| 27.5°  | 1168.5 | 1144.9 | 1098.7 | 1077.2 | 1062.2 |
| 30°    | 1128.8 | 1101.9 | 1051.5 | 1024.6 | 1007.4 |
| 32.5°  | 1086.9 | 1055.8 | 1003.1 | 970.9  | 954.8  |
| 35°    | 1042.9 | 1008.5 | 954.8  | 918.3  | 898.9  |
| 37.5°  | 996.7  | 961.2  | 902.2  | 862.4  | 843.1  |
| 40°    | 947.3  | 911.8  | 850.6  | 805.5  | 786.2  |
| 42.5°  | 900.0  | 862.4  | 798.0  | 751.8  | 731.4  |
| 45°    | 850.6  | 810.9  | 746.4  | 693.8  | 674.5  |
| 47.5°  | 800.1  | 759.3  | 692.7  | 638.0  | 616.5  |
| 50°    | 748.6  | 706.7  | 638.0  | 584.3  | 563.9  |
| 52.5°  | 696.0  | 655.1  | 584.3  | 529.5  | 508.0  |
| 55°    | 644.4  | 601.4  | 531.6  | 475.8  | 455.4  |
| 57.5°  | 593.9  | 548.8  | 480.1  | 423.2  | 408.1  |
| 60°    | 539.2  | 496.2  | 427.5  | 371.6  | 354.4  |
| 62.5°  | 489.8  | 444.6  | 373.8  | 323.3  | 310.4  |
| 65°    | 438.2  | 392.0  | 323.3  | 277.1  | 264.2  |
| 67.5°  | 384.5  | 340.5  | 276.0  | 235.2  | 220.2  |
| 70°    | 334.0  | 288.9  | 227.7  | 192.2  | 181.5  |
| 72.5°  | 280.3  | 240.6  | 183.7  | 154.7  | 145.0  |
| 75°    | 233.1  | 193.3  | 142.8  | 118.1  | 111.7  |
| 77.5°  | 183.7  | 149.3  | 106.3  | 89.1   | 87.0   |
| 80°    | 136.4  | 105.3  | 73.0   | 69.8   | 68.7   |
| 82.5°  | 95.6   | 67.7   | 52.6   | 50.5   | 49.4   |
| 85°    | 58.0   | 36.5   | 33.3   | 31.1   | 31.1   |
| 87.5°  | 24.7   | 16.1   | 15.0   | 14.0   | 15.0   |
| 90°    | 3.5    | 16.3   | 25.7   | 32.7   | 35.0   |
| 92.5°  | 17.5   | 15.2   | 24.5   | 31.5   | 31.5   |
| 95°    | 64.1   | 24.5   | 25.7   | 32.7   | 33.8   |
| 97.5°  | 122.5  | 148.1  | 25.7   | 31.5   | 32.7   |
| 100°   | 191.3  | 212.2  | 51.3   | 31.5   | 32.7   |
| 102.5° | 268.2  | 282.2  | 296.2  | 33.8   | 33.8   |
| 105°   | 351.0  | 358.0  | 363.9  | 374.4  | 332.4  |
| 107.5° | 426.8  | 430.3  | 438.5  | 444.3  | 449.0  |
| 110°   | 503.8  | 507.3  | 514.3  | 516.6  | 520.1  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 578.4  | 585.4  | 587.8  | 586.6  | 591.3  |
| 115°   | 655.4  | 658.9  | 657.7  | 660.1  | 660.1  |
| 117.5° | 724.2  | 728.9  | 732.4  | 731.2  | 731.2  |
| 120°   | 794.2  | 798.9  | 797.7  | 800.0  | 797.7  |
| 122.5° | 859.5  | 861.8  | 864.2  | 865.3  | 863.0  |
| 125°   | 921.3  | 926.0  | 923.6  | 927.1  | 928.3  |
| 127.5° | 980.8  | 981.9  | 987.8  | 986.6  | 985.4  |
| 130°   | 1037.9 | 1039.1 | 1042.6 | 1043.8 | 1043.8 |
| 132.5° | 1090.4 | 1092.7 | 1097.4 | 1098.6 | 1097.4 |
| 135°   | 1142.9 | 1141.7 | 1146.4 | 1148.7 | 1151.0 |
| 137.5° | 1189.5 | 1189.5 | 1195.4 | 1197.7 | 1196.5 |
| 140°   | 1235.0 | 1237.3 | 1239.7 | 1243.2 | 1244.3 |
| 142.5° | 1275.8 | 1280.5 | 1281.7 | 1284.0 | 1284.0 |
| 145°   | 1317.8 | 1321.3 | 1321.3 | 1322.5 | 1324.8 |
| 147.5° | 1350.5 | 1357.5 | 1356.3 | 1357.5 | 1358.6 |
| 150°   | 1386.6 | 1391.3 | 1390.1 | 1390.1 | 1391.3 |
| 152.5° | 1416.9 | 1420.4 | 1418.1 | 1420.4 | 1419.3 |
| 155°   | 1444.9 | 1446.1 | 1442.6 | 1447.3 | 1443.8 |
| 157.5° | 1469.4 | 1469.4 | 1464.8 | 1470.6 | 1464.8 |
| 160°   | 1490.4 | 1486.9 | 1485.7 | 1492.7 | 1485.7 |
| 162.5° | 1509.1 | 1504.4 | 1503.2 | 1510.2 | 1502.1 |
| 165°   | 1524.2 | 1518.4 | 1518.4 | 1527.7 | 1517.2 |
| 167.5° | 1537.1 | 1531.2 | 1530.1 | 1540.6 | 1528.9 |
| 170°   | 1547.6 | 1540.6 | 1541.7 | 1551.1 | 1539.4 |
| 172.5° | 1554.6 | 1547.6 | 1548.7 | 1558.1 | 1545.2 |
| 175°   | 1559.2 | 1552.2 | 1553.4 | 1563.9 | 1549.9 |
| 177.5° | 1562.7 | 1554.6 | 1556.9 | 1566.2 | 1552.2 |
| 180°   | 1559.2 | 1559.2 | 1559.2 | 1559.2 | 1559.2 |

(END OF REPORT)