

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: P1011325

Luminaire Tested: S123DIP-B1165D1195UB50-4F0-XX-W2A-F

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011325  
REPORT IS A COMBINATION OF REPORTS P989436 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1165D1195UB50-4F0-XX-W2A-F  
Description: Define 3 Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015} {m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

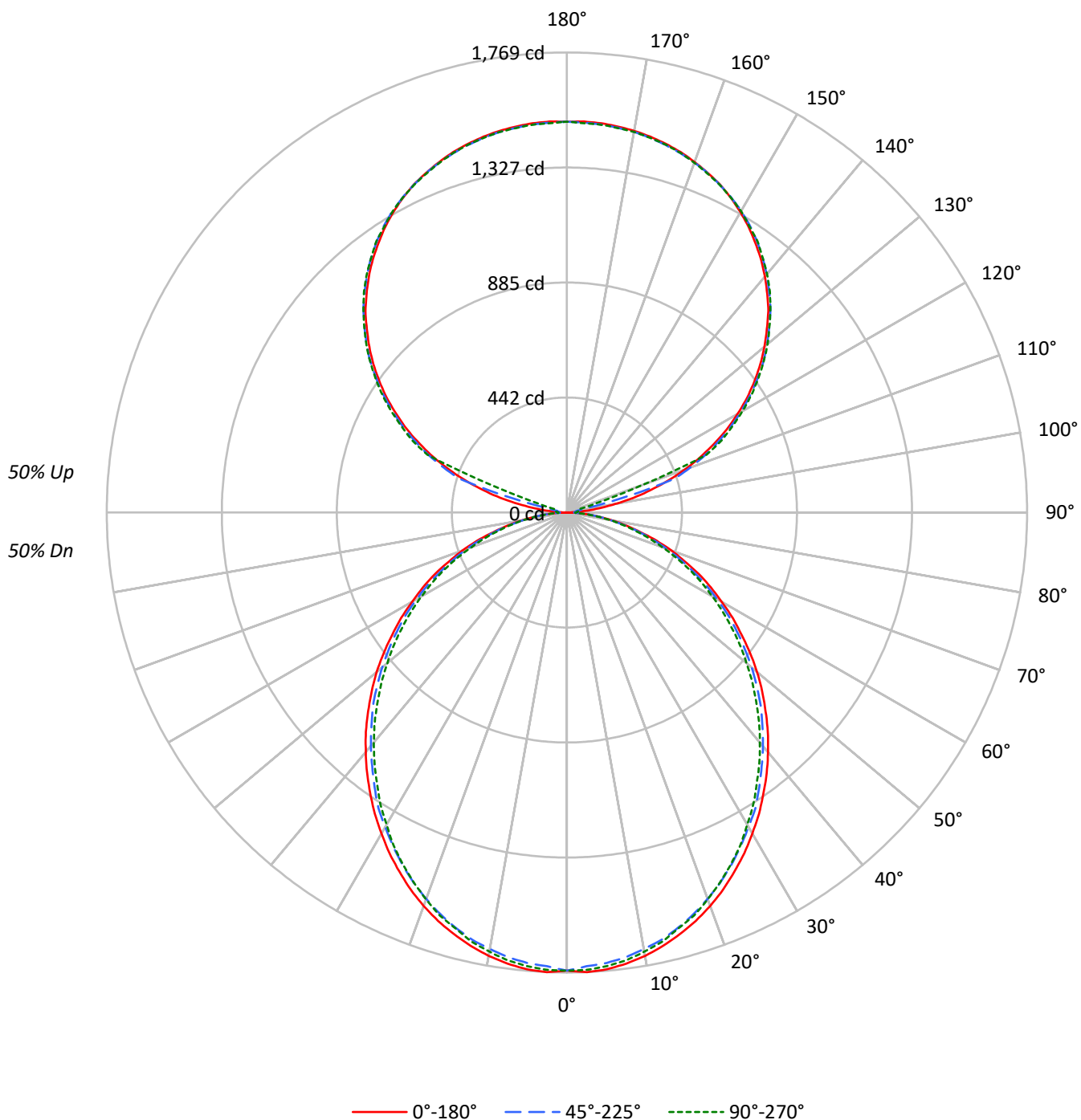
Lumens per Lamp: N/A  
Luminaire Lumens: 9169.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.3  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

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   | 107 | 107 | 107 | 107 | 99 | 99 | 99 | 99 | 83 | 83 | 83 | 69 | 69 | 69 | 56 | 56 | 56 |
| 1   | 98  | 93  | 89  | 86  | 90 | 86 | 83 | 80 | 73 | 71 | 68 | 61 | 59 | 57 | 50 | 48 | 47 |
| 2   | 89  | 82  | 75  | 70  | 82 | 75 | 70 | 65 | 64 | 60 | 57 | 53 | 50 | 48 | 44 | 42 | 40 |
| 3   | 81  | 72  | 64  | 58  | 75 | 66 | 60 | 55 | 56 | 51 | 47 | 47 | 44 | 41 | 39 | 36 | 34 |
| 4   | 74  | 63  | 55  | 49  | 68 | 59 | 52 | 46 | 50 | 45 | 40 | 42 | 38 | 35 | 34 | 32 | 29 |
| 5   | 68  | 56  | 48  | 42  | 63 | 52 | 45 | 40 | 45 | 39 | 35 | 38 | 33 | 30 | 31 | 28 | 25 |
| 6   | 63  | 51  | 42  | 37  | 58 | 47 | 40 | 35 | 40 | 35 | 30 | 34 | 30 | 26 | 28 | 25 | 22 |
| 7   | 58  | 46  | 38  | 32  | 53 | 43 | 35 | 30 | 37 | 31 | 27 | 31 | 27 | 23 | 26 | 22 | 20 |
| 8   | 54  | 41  | 34  | 28  | 50 | 39 | 32 | 27 | 33 | 28 | 24 | 28 | 24 | 21 | 24 | 20 | 18 |
| 9   | 50  | 38  | 30  | 25  | 46 | 35 | 29 | 24 | 31 | 25 | 21 | 26 | 22 | 19 | 22 | 18 | 16 |
| 10  | 47  | 35  | 27  | 23  | 43 | 32 | 26 | 21 | 28 | 23 | 19 | 24 | 20 | 17 | 20 | 17 | 15 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 18963 | 18963 | 18963 |
| 5°  | 19010 | 18309 | 18281 |
| 10° | 18841 | 17689 | 17508 |
| 15° | 18579 | 17045 | 16664 |
| 20° | 18278 | 16330 | 15828 |
| 25° | 17890 | 15574 | 14935 |
| 30° | 17464 | 14793 | 13996 |
| 35° | 17020 | 13994 | 13061 |
| 40° | 16554 | 13157 | 12144 |
| 45° | 16041 | 12340 | 11184 |
| 50° | 15518 | 11431 | 10221 |
| 55° | 14849 | 10482 | 9245  |
| 60° | 14159 | 9436  | 8206  |
| 65° | 13513 | 8305  | 7123  |
| 70° | 12581 | 7050  | 5860  |
| 75° | 11237 | 5583  | 4550  |
| 80° | 9702  | 3924  | 3218  |
| 85° | 7569  | 2108  | 1611  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 16041 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 166.1  | 1.8       |
| 10°-20°   | 469.0  | 5.1       |
| 20°-30°   | 692.6  | 7.6       |
| 30°-40°   | 808.9  | 8.8       |
| 40°-50°   | 813.2  | 8.9       |
| 50°-60°   | 714.4  | 7.8       |
| 60°-70°   | 532.0  | 5.8       |
| 70°-80°   | 302.8  | 3.3       |
| 80°-90°   | 89.1   | 1.0       |
| 90°-100°  | 53.0   | 0.6       |
| 100°-110° | 256.2  | 2.8       |
| 110°-120° | 627.8  | 6.8       |
| 120°-130° | 797.0  | 8.7       |
| 130°-140° | 851.4  | 9.3       |
| 140°-150° | 796.2  | 8.7       |
| 150°-160° | 642.2  | 7.0       |
| 160°-170° | 414.4  | 4.5       |
| 170°-180° | 142.8  | 1.6       |
| 0°-30°    | 1327.7 | 14.5      |
| 0°-40°    | 2136.6 | 23.3      |
| 0°-60°    | 3664.1 | 40.0      |
| 0°-90°    | 4588.0 | 50.0      |
| 90°-120°  | 937.0  | 10.2      |
| 90°-150°  | 3381.6 | 36.9      |
| 90°-180°  | 4581.0 | 50.0      |
| 0°-180°   | 9169.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1762 | 1762  | 1762 | 1762  | 1762 |      |
| 5°   | 1763 | 1756  | 1739 | 1754  | 1751 | 167  |
| 15°  | 1678 | 1672  | 1653 | 1665  | 1656 | 473  |
| 25°  | 1524 | 1515  | 1495 | 1497  | 1492 | 702  |
| 35°  | 1318 | 1309  | 1289 | 1280  | 1272 | 825  |
| 45°  | 1080 | 1074  | 1054 | 1036  | 1029 | 834  |
| 55°  | 820  | 818   | 798  | 782   | 774  | 734  |
| 65°  | 559  | 551   | 536  | 524   | 520  | 551  |
| 75°  | 295  | 289   | 285  | 277   | 273  | 316  |
| 85°  | 79   | 76    | 76   | 73    | 73   | 84   |
| 90°  | 1    | 12    | 27   | 31    | 34   | 9    |
| 95°  | 68   | 22    | 35   | 42    | 42   | 81   |
| 105° | 333  | 345   | 244  | 47    | 49   | 353  |
| 115° | 624  | 631   | 641  | 652   | 656  | 616  |
| 125° | 880  | 889   | 893  | 895   | 898  | 786  |
| 135° | 1095 | 1102  | 1106 | 1110  | 1106 | 843  |
| 145° | 1264 | 1272  | 1274 | 1276  | 1276 | 791  |
| 155° | 1392 | 1390  | 1391 | 1397  | 1390 | 641  |
| 165° | 1468 | 1465  | 1464 | 1472  | 1465 | 415  |
| 175° | 1503 | 1497  | 1498 | 1506  | 1497 | 143  |
| 180° | 1503 | 1503  | 1503 | 1503  | 1503 |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1761.7 | 1761.7 | 1761.7 | 1761.7 | 1761.7 |
| 2.5°   | 1769.3 | 1763.2 | 1746.6 | 1761.7 | 1760.2 |
| 5°     | 1763.2 | 1755.7 | 1739.0 | 1754.2 | 1751.1 |
| 7.5°   | 1749.6 | 1742.0 | 1725.4 | 1739.0 | 1737.5 |
| 10°    | 1731.4 | 1723.9 | 1704.2 | 1717.8 | 1714.8 |
| 12.5°  | 1707.2 | 1701.1 | 1683.0 | 1692.0 | 1690.5 |
| 15°    | 1678.4 | 1672.4 | 1652.7 | 1664.8 | 1655.7 |
| 17.5°  | 1646.6 | 1639.0 | 1619.3 | 1628.4 | 1625.4 |
| 20°    | 1610.2 | 1601.2 | 1581.5 | 1587.5 | 1583.0 |
| 22.5°  | 1569.3 | 1560.3 | 1540.6 | 1545.1 | 1539.1 |
| 25°    | 1523.9 | 1514.8 | 1495.1 | 1496.6 | 1492.1 |
| 27.5°  | 1476.9 | 1467.9 | 1446.6 | 1448.2 | 1443.6 |
| 30°    | 1425.4 | 1417.9 | 1396.7 | 1396.7 | 1386.1 |
| 32.5°  | 1373.9 | 1363.3 | 1348.2 | 1337.6 | 1333.0 |
| 35°    | 1317.9 | 1308.8 | 1289.1 | 1280.0 | 1272.4 |
| 37.5°  | 1261.8 | 1249.7 | 1230.0 | 1219.4 | 1214.9 |
| 40°    | 1202.8 | 1193.7 | 1172.5 | 1160.3 | 1154.3 |
| 42.5°  | 1143.7 | 1133.1 | 1111.9 | 1099.8 | 1093.7 |
| 45°    | 1080.1 | 1074.0 | 1054.3 | 1036.1 | 1028.6 |
| 47.5°  | 1018.0 | 1008.9 | 990.7  | 972.5  | 966.5  |
| 50°    | 954.3  | 946.8  | 927.1  | 910.4  | 901.3  |
| 52.5°  | 887.7  | 883.1  | 861.9  | 848.3  | 839.2  |
| 55°    | 819.5  | 818.0  | 798.3  | 781.6  | 774.1  |
| 57.5°  | 755.9  | 749.8  | 734.7  | 719.5  | 710.4  |
| 60°    | 686.2  | 684.7  | 666.5  | 652.9  | 645.3  |
| 62.5°  | 624.1  | 619.6  | 601.4  | 587.7  | 583.2  |
| 65°    | 559.0  | 551.4  | 536.2  | 524.1  | 519.6  |
| 67.5°  | 489.3  | 483.2  | 471.1  | 460.5  | 454.4  |
| 70°    | 427.2  | 418.1  | 409.0  | 398.4  | 390.8  |
| 72.5°  | 362.0  | 356.0  | 345.4  | 336.3  | 333.3  |
| 75°    | 295.4  | 289.3  | 284.8  | 277.2  | 272.7  |
| 77.5°  | 236.3  | 233.3  | 227.2  | 221.2  | 221.2  |
| 80°    | 178.7  | 174.2  | 171.2  | 169.7  | 169.7  |
| 82.5°  | 122.7  | 122.7  | 122.7  | 119.7  | 118.2  |
| 85°    | 78.8   | 75.7   | 75.7   | 72.7   | 72.7   |
| 87.5°  | 39.4   | 34.8   | 33.3   | 31.8   | 31.8   |
| 90°    | 1.1    | 12.3   | 26.8   | 31.3   | 33.5   |
| 92.5°  | 25.7   | 19.0   | 29.0   | 36.8   | 38.0   |
| 95°    | 68.1   | 22.3   | 34.6   | 42.4   | 42.4   |
| 97.5°  | 123.9  | 92.7   | 35.7   | 44.7   | 45.8   |
| 100°   | 188.7  | 211.0  | 36.8   | 45.8   | 46.9   |
| 102.5° | 262.4  | 276.9  | 82.6   | 45.8   | 48.0   |
| 105°   | 332.7  | 345.0  | 244.5  | 46.9   | 49.1   |
| 107.5° | 407.5  | 417.5  | 434.3  | 262.4  | 116.1  |
| 110°   | 482.3  | 491.2  | 503.5  | 466.7  | 307.0  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 553.7  | 561.5  | 573.8  | 583.9  | 581.6  |
| 115°   | 624.1  | 630.8  | 640.8  | 652.0  | 656.4  |
| 117.5° | 693.3  | 701.1  | 706.7  | 715.6  | 716.7  |
| 120°   | 756.9  | 767.0  | 770.3  | 779.2  | 779.2  |
| 122.5° | 821.7  | 829.5  | 833.9  | 839.5  | 840.6  |
| 125°   | 879.7  | 888.6  | 893.1  | 895.3  | 897.6  |
| 127.5° | 937.8  | 946.7  | 952.3  | 955.6  | 953.4  |
| 130°   | 991.4  | 1000.3 | 1004.8 | 1009.2 | 1007.0 |
| 132.5° | 1042.7 | 1051.6 | 1055.0 | 1059.5 | 1056.1 |
| 135°   | 1095.2 | 1101.9 | 1106.3 | 1109.7 | 1106.3 |
| 137.5° | 1139.8 | 1148.8 | 1151.0 | 1156.6 | 1154.3 |
| 140°   | 1184.5 | 1191.2 | 1194.5 | 1199.0 | 1196.8 |
| 142.5° | 1225.8 | 1232.5 | 1235.8 | 1239.2 | 1235.8 |
| 145°   | 1263.8 | 1271.6 | 1273.8 | 1276.0 | 1276.0 |
| 147.5° | 1300.6 | 1306.2 | 1308.4 | 1310.6 | 1305.1 |
| 150°   | 1334.1 | 1337.4 | 1339.7 | 1341.9 | 1338.6 |
| 152.5° | 1364.2 | 1365.3 | 1366.5 | 1370.9 | 1365.3 |
| 155°   | 1392.1 | 1389.9 | 1391.0 | 1396.6 | 1389.9 |
| 157.5° | 1414.5 | 1414.5 | 1413.4 | 1420.1 | 1411.1 |
| 160°   | 1434.6 | 1433.4 | 1432.3 | 1439.0 | 1431.2 |
| 162.5° | 1453.5 | 1450.2 | 1449.1 | 1456.9 | 1450.2 |
| 165°   | 1468.1 | 1464.7 | 1463.6 | 1472.5 | 1464.7 |
| 167.5° | 1480.3 | 1475.9 | 1475.9 | 1484.8 | 1475.9 |
| 170°   | 1490.4 | 1485.9 | 1485.9 | 1494.8 | 1485.9 |
| 172.5° | 1497.1 | 1491.5 | 1492.6 | 1501.5 | 1491.5 |
| 175°   | 1502.7 | 1497.1 | 1498.2 | 1506.0 | 1497.1 |
| 177.5° | 1504.9 | 1499.3 | 1500.4 | 1509.4 | 1498.2 |
| 180°   | 1502.7 | 1502.7 | 1502.7 | 1502.7 | 1502.7 |

(END OF REPORT)