

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: P1011376

Luminaire Tested: S123DIP-B1165D585UB27-4F0-XX-W2A-D4

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1011376  
REPORT IS A COMBINATION OF REPORTS P989504 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-B1165D585UB27-4F0-XX-W2A-D4  
Description: Define 3 Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

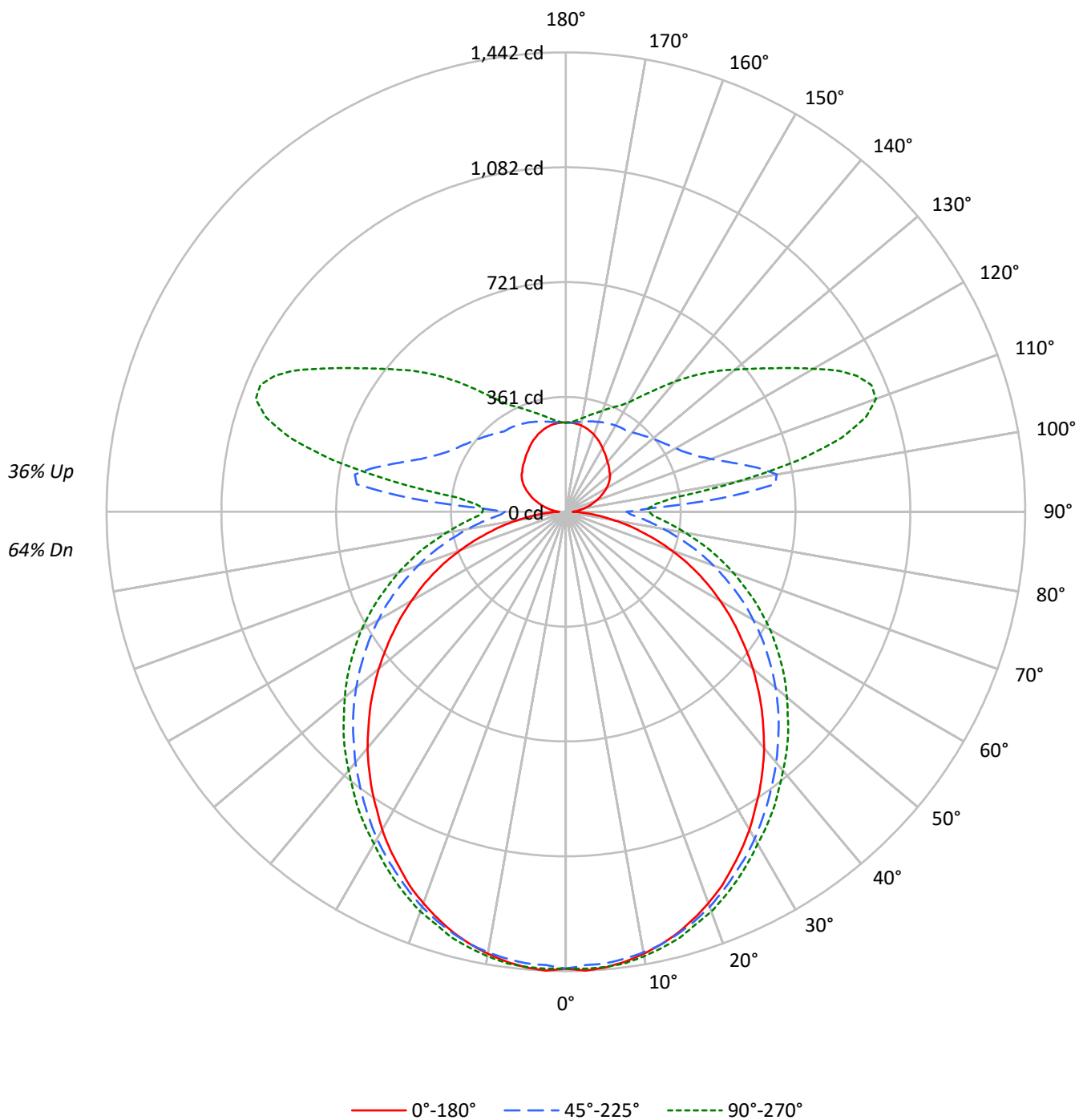
Lumens per Lamp: N/A  
Luminaire Lumens: 6930.9 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.25 / 1.37  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 76.7  
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   | 110 | 110 | 110 | 110 | 104 | 104 | 104 | 104 | 91 | 91 | 91 | 79 | 79 | 79 | 69 | 69 | 69 |
| 1   | 100 | 95  | 90  | 86  | 93  | 89  | 85  | 81  | 78 | 75 | 72 | 68 | 66 | 63 | 59 | 57 | 55 |
| 2   | 90  | 82  | 75  | 69  | 84  | 77  | 71  | 66  | 67 | 63 | 59 | 59 | 55 | 52 | 51 | 48 | 46 |
| 3   | 82  | 72  | 63  | 57  | 76  | 67  | 60  | 54  | 59 | 53 | 49 | 52 | 47 | 43 | 45 | 41 | 38 |
| 4   | 75  | 63  | 55  | 48  | 70  | 59  | 52  | 46  | 52 | 46 | 41 | 46 | 41 | 37 | 40 | 36 | 33 |
| 5   | 69  | 56  | 47  | 41  | 64  | 53  | 45  | 39  | 47 | 40 | 35 | 41 | 36 | 32 | 36 | 32 | 28 |
| 6   | 63  | 50  | 42  | 35  | 59  | 47  | 40  | 34  | 42 | 36 | 31 | 37 | 32 | 28 | 32 | 28 | 25 |
| 7   | 58  | 45  | 37  | 31  | 55  | 43  | 35  | 30  | 38 | 32 | 27 | 34 | 28 | 24 | 29 | 25 | 22 |
| 8   | 54  | 41  | 33  | 27  | 51  | 39  | 32  | 26  | 35 | 28 | 24 | 31 | 26 | 22 | 27 | 23 | 20 |
| 9   | 51  | 38  | 30  | 24  | 47  | 36  | 28  | 23  | 32 | 26 | 22 | 28 | 23 | 20 | 25 | 21 | 18 |
| 10  | 47  | 35  | 27  | 22  | 44  | 33  | 26  | 21  | 29 | 23 | 19 | 26 | 21 | 18 | 23 | 19 | 16 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15434 | 15434 | 15434 |
| 5°  | 15477 | 14982 | 14969 |
| 10° | 15332 | 14576 | 14464 |
| 15° | 15129 | 14128 | 13929 |
| 20° | 14841 | 13628 | 13354 |
| 25° | 14487 | 13066 | 12758 |
| 30° | 14123 | 12556 | 12160 |
| 35° | 13716 | 12022 | 11673 |
| 40° | 13328 | 11534 | 11158 |
| 45° | 12898 | 11061 | 10734 |
| 50° | 12471 | 10593 | 10273 |
| 55° | 12000 | 10112 | 9850  |
| 60° | 11539 | 9621  | 9416  |
| 65° | 11064 | 9096  | 8908  |
| 70° | 10348 | 8509  | 8384  |
| 75° | 9449  | 7839  | 7845  |
| 80° | 8393  | 7161  | 7228  |
| 85° | 7348  | 6611  | 6785  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 12898 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 136.0  | 2.0       |
| 10°-20°   | 387.8  | 5.6       |
| 20°-30°   | 579.9  | 8.4       |
| 30°-40°   | 692.3  | 10.0      |
| 40°-50°   | 724.4  | 10.5      |
| 50°-60°   | 679.8  | 9.8       |
| 60°-70°   | 567.8  | 8.2       |
| 70°-80°   | 406.0  | 5.9       |
| 80°-90°   | 243.1  | 3.5       |
| 90°-100°  | 310.9  | 4.5       |
| 100°-110° | 556.2  | 8.0       |
| 110°-120° | 508.0  | 7.3       |
| 120°-130° | 387.7  | 5.6       |
| 130°-140° | 291.6  | 4.2       |
| 140°-150° | 207.3  | 3.0       |
| 150°-160° | 141.8  | 2.0       |
| 160°-170° | 83.3   | 1.2       |
| 170°-180° | 27.1   | 0.4       |
| 0°-30°    | 1103.7 | 15.9      |
| 0°-40°    | 1796.0 | 25.9      |
| 0°-60°    | 3200.1 | 46.2      |
| 0°-90°    | 4417.1 | 63.7      |
| 90°-120°  | 1375.1 | 19.8      |
| 90°-150°  | 2261.6 | 32.6      |
| 90°-180°  | 2514.0 | 36.3      |
| 0°-180°   | 6930.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1434 | 1434  | 1434 | 1434  | 1434 |      |
| 5°   | 1436 | 1432  | 1423 | 1436  | 1434 | 136  |
| 15°  | 1367 | 1371  | 1370 | 1386  | 1384 | 385  |
| 25°  | 1234 | 1250  | 1254 | 1275  | 1275 | 569  |
| 35°  | 1062 | 1087  | 1107 | 1131  | 1137 | 664  |
| 45°  | 868  | 906   | 945  | 975   | 987  | 670  |
| 55°  | 662  | 714   | 770  | 812   | 825  | 593  |
| 65°  | 458  | 519   | 587  | 634   | 650  | 452  |
| 75°  | 248  | 322   | 400  | 451   | 470  | 265  |
| 85°  | 76   | 155   | 237  | 290   | 306  | 79   |
| 90°  | 21   | 104   | 191  | 245   | 262  | 16   |
| 95°  | 36   | 141   | 491  | 301   | 284  | 34   |
| 105° | 78   | 147   | 573  | 958   | 896  | 82   |
| 115° | 124  | 171   | 431  | 884   | 1009 | 123  |
| 125° | 166  | 195   | 375  | 672   | 785  | 148  |
| 135° | 192  | 227   | 339  | 532   | 615  | 149  |
| 145° | 218  | 247   | 317  | 411   | 457  | 136  |
| 155° | 245  | 265   | 306  | 348   | 363  | 113  |
| 165° | 268  | 276   | 294  | 311   | 317  | 76   |
| 175° | 279  | 280   | 282  | 286   | 285  | 27   |
| 180° | 280  | 280   | 280  | 280   | 280  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1433.9 | 1433.9 | 1433.9 | 1433.9 | 1433.9 |
| 2.5°   | 1441.7 | 1437.0 | 1424.5 | 1437.0 | 1435.5 |
| 5°     | 1435.5 | 1432.3 | 1423.0 | 1435.5 | 1433.9 |
| 7.5°   | 1424.5 | 1424.5 | 1415.1 | 1430.8 | 1429.2 |
| 10°    | 1408.9 | 1412.0 | 1404.2 | 1419.8 | 1416.7 |
| 12.5°  | 1390.2 | 1394.8 | 1390.2 | 1404.2 | 1401.1 |
| 15°    | 1366.7 | 1371.4 | 1369.9 | 1385.5 | 1383.9 |
| 17.5°  | 1338.6 | 1348.0 | 1346.4 | 1360.5 | 1357.4 |
| 20°    | 1307.4 | 1316.7 | 1319.9 | 1333.9 | 1335.5 |
| 22.5°  | 1274.6 | 1283.9 | 1288.6 | 1307.4 | 1305.8 |
| 25°    | 1234.0 | 1249.6 | 1254.3 | 1274.6 | 1274.6 |
| 27.5°  | 1194.9 | 1212.1 | 1221.5 | 1238.6 | 1240.2 |
| 30°    | 1152.7 | 1173.0 | 1185.5 | 1204.3 | 1204.3 |
| 32.5°  | 1105.9 | 1129.3 | 1146.5 | 1166.8 | 1171.5 |
| 35°    | 1062.1 | 1087.1 | 1107.4 | 1130.9 | 1137.1 |
| 37.5°  | 1015.3 | 1043.4 | 1066.8 | 1093.4 | 1098.1 |
| 40°    | 968.4  | 996.5  | 1027.8 | 1054.3 | 1060.6 |
| 42.5°  | 916.9  | 952.8  | 985.6  | 1015.3 | 1024.7 |
| 45°    | 868.5  | 905.9  | 945.0  | 974.7  | 987.2  |
| 47.5°  | 816.9  | 859.1  | 902.8  | 935.6  | 945.0  |
| 50°    | 766.9  | 810.7  | 859.1  | 895.0  | 905.9  |
| 52.5°  | 713.8  | 760.7  | 815.4  | 852.8  | 866.9  |
| 55°    | 662.3  | 713.8  | 770.1  | 812.2  | 824.7  |
| 57.5°  | 612.3  | 665.4  | 726.3  | 768.5  | 782.5  |
| 60°    | 559.2  | 615.4  | 679.5  | 723.2  | 740.4  |
| 62.5°  | 509.2  | 567.0  | 635.7  | 679.5  | 695.1  |
| 65°    | 457.7  | 518.6  | 587.3  | 634.2  | 649.8  |
| 67.5°  | 406.1  | 470.2  | 538.9  | 590.4  | 602.9  |
| 70°    | 351.4  | 418.6  | 493.6  | 543.6  | 559.2  |
| 72.5°  | 301.5  | 368.6  | 446.7  | 498.3  | 513.9  |
| 75°    | 248.4  | 321.8  | 399.9  | 451.4  | 470.2  |
| 77.5°  | 203.1  | 276.5  | 354.6  | 409.2  | 423.3  |
| 80°    | 154.6  | 231.2  | 312.4  | 365.5  | 381.1  |
| 82.5°  | 112.5  | 190.6  | 273.3  | 326.5  | 342.1  |
| 85°    | 76.5   | 154.6  | 237.4  | 290.5  | 306.1  |
| 87.5°  | 46.9   | 125.0  | 204.6  | 257.7  | 273.3  |
| 90°    | 21.4   | 103.6  | 190.7  | 245.4  | 261.6  |
| 92.5°  | 27.2   | 119.9  | 269.4  | 251.6  | 259.6  |
| 95°    | 36.5   | 140.8  | 490.6  | 301.1  | 284.4  |
| 97.5°  | 46.2   | 143.6  | 662.0  | 438.6  | 342.6  |
| 100°   | 56.0   | 143.0  | 672.5  | 696.8  | 552.1  |
| 102.5° | 66.3   | 143.8  | 626.2  | 860.7  | 748.5  |
| 105°   | 78.2   | 147.2  | 572.6  | 957.6  | 895.6  |
| 107.5° | 89.1   | 152.2  | 524.3  | 993.2  | 987.8  |
| 110°   | 101.2  | 157.6  | 484.2  | 985.4  | 1035.9 |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°    |
|--------|-------|-------|-------|-------|--------|
| 112.5° | 113.7 | 163.5 | 453.2 | 942.4 | 1038.4 |
| 115°   | 124.0 | 171.4 | 431.3 | 884.4 | 1009.3 |
| 117.5° | 135.9 | 177.0 | 412.2 | 822.8 | 960.3  |
| 120°   | 146.7 | 182.6 | 398.2 | 764.2 | 897.2  |
| 122.5° | 157.5 | 189.2 | 386.4 | 716.0 | 839.1  |
| 125°   | 166.2 | 195.4 | 375.2 | 672.0 | 785.0  |
| 127.5° | 174.1 | 204.0 | 365.7 | 634.4 | 737.0  |
| 130°   | 181.5 | 213.0 | 356.2 | 598.8 | 694.4  |
| 132.5° | 185.5 | 221.2 | 347.9 | 565.2 | 655.4  |
| 135°   | 192.3 | 227.4 | 339.4 | 532.2 | 615.1  |
| 137.5° | 198.6 | 233.6 | 332.1 | 499.0 | 574.5  |
| 140°   | 203.3 | 239.3 | 325.2 | 468.0 | 533.8  |
| 142.5° | 210.1 | 242.8 | 317.9 | 437.3 | 493.8  |
| 145°   | 217.5 | 247.3 | 316.7 | 410.6 | 456.7  |
| 147.5° | 223.2 | 252.2 | 315.0 | 388.0 | 425.1  |
| 150°   | 230.6 | 256.1 | 312.8 | 370.3 | 396.9  |
| 152.5° | 238.0 | 260.4 | 309.9 | 359.0 | 376.8  |
| 155°   | 245.3 | 264.6 | 306.5 | 348.5 | 363.2  |
| 157.5° | 251.0 | 268.3 | 303.7 | 338.2 | 350.2  |
| 160°   | 257.8 | 271.4 | 300.3 | 328.9 | 337.7  |
| 162.5° | 262.9 | 273.6 | 296.9 | 320.1 | 326.4  |
| 165°   | 268.0 | 275.6 | 293.5 | 311.4 | 316.7  |
| 167.5° | 272.0 | 277.4 | 290.1 | 303.7 | 307.1  |
| 170°   | 275.4 | 278.2 | 286.7 | 296.9 | 298.6  |
| 172.5° | 277.6 | 279.0 | 283.9 | 291.0 | 290.7  |
| 175°   | 279.3 | 279.6 | 281.6 | 285.6 | 285.0  |
| 177.5° | 280.5 | 279.9 | 279.9 | 282.2 | 281.0  |
| 180°   | 279.9 | 279.9 | 279.9 | 279.9 | 279.9  |

(END OF REPORT)