

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: P1012242

Luminaire Tested: S123RDIP-B1000D805UB30-4F0-XX-W2A-F1

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1012242  
REPORT IS A COMBINATION OF REPORTS P992899 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-B1000D805UB30-4F0-XX-W2A-F1  
Description: Define 3 Regressed Direct/Indirect Pendant with 3000K BioUP LEDs {m-DER=0.589}  
{m-EER=0.647}  
Light Source: -  
Ballast/Driver: -

**Summary**

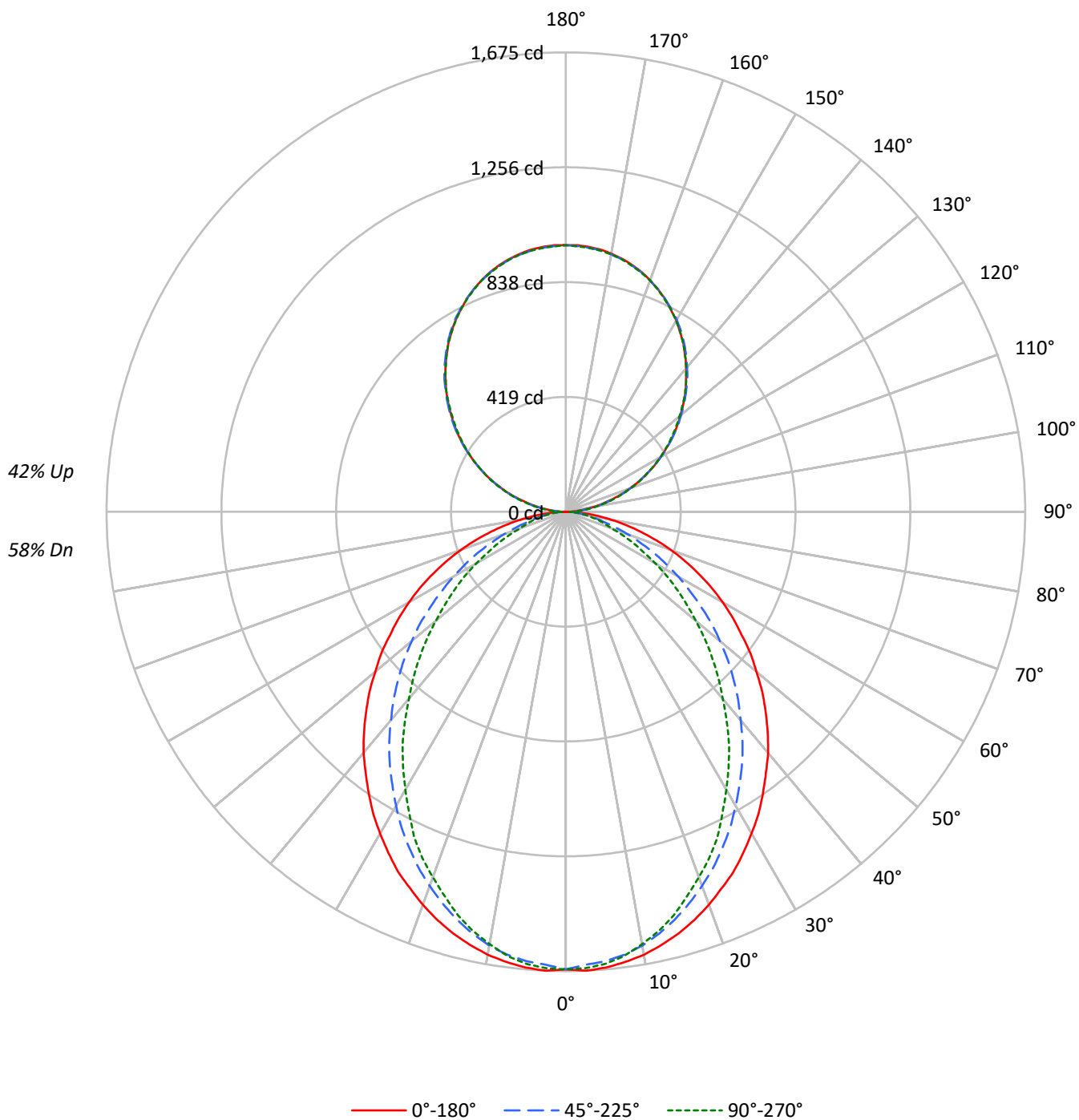
Lumens per Lamp: N/A  
Luminaire Lumens: 6464.0 lumens  
Efficiency: N/A  
Efficacy: 95.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: General Diffuse

Input Watts (W): 67.9  
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   | 109 | 109 | 109 | 109 | 102 | 102 | 102 | 102 | 88 | 88 | 88 | 75 | 75 | 75 | 64 | 64 | 64 |
| 1   | 100 | 96  | 92  | 89  | 93  | 90  | 86  | 83  | 78 | 75 | 73 | 67 | 65 | 64 | 57 | 56 | 55 |
| 2   | 91  | 84  | 78  | 73  | 85  | 79  | 73  | 69  | 69 | 65 | 61 | 59 | 56 | 54 | 51 | 48 | 47 |
| 3   | 84  | 74  | 67  | 61  | 78  | 70  | 63  | 58  | 61 | 56 | 52 | 53 | 49 | 46 | 45 | 42 | 40 |
| 4   | 77  | 66  | 58  | 52  | 71  | 62  | 55  | 50  | 54 | 49 | 45 | 47 | 43 | 40 | 41 | 37 | 35 |
| 5   | 71  | 59  | 51  | 45  | 66  | 55  | 48  | 43  | 49 | 43 | 39 | 43 | 38 | 35 | 37 | 33 | 31 |
| 6   | 65  | 53  | 45  | 39  | 61  | 50  | 43  | 37  | 44 | 38 | 34 | 39 | 34 | 30 | 33 | 30 | 27 |
| 7   | 60  | 48  | 40  | 35  | 56  | 45  | 38  | 33  | 40 | 34 | 30 | 35 | 31 | 27 | 31 | 27 | 24 |
| 8   | 56  | 44  | 36  | 31  | 52  | 41  | 34  | 29  | 37 | 31 | 27 | 32 | 28 | 24 | 28 | 25 | 22 |
| 9   | 52  | 40  | 33  | 28  | 49  | 38  | 31  | 26  | 34 | 28 | 24 | 30 | 25 | 22 | 26 | 22 | 20 |
| 10  | 49  | 37  | 30  | 25  | 46  | 35  | 28  | 24  | 31 | 26 | 22 | 28 | 23 | 20 | 24 | 21 | 18 |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17957 | 17957 | 17957 |
| 5°  | 17987 | 17322 | 17276 |
| 10° | 17845 | 16671 | 16343 |
| 15° | 17614 | 15866 | 15321 |
| 20° | 17310 | 14990 | 14179 |
| 25° | 16997 | 14081 | 13097 |
| 30° | 16594 | 13112 | 11818 |
| 35° | 16180 | 12162 | 10653 |
| 40° | 15791 | 11130 | 9366  |
| 45° | 15292 | 10120 | 8209  |
| 50° | 14741 | 9043  | 7011  |
| 55° | 14171 | 7889  | 5914  |
| 60° | 13625 | 6705  | 4801  |
| 65° | 12921 | 5491  | 3747  |
| 70° | 12033 | 4151  | 2678  |
| 75° | 10758 | 2811  | 2122  |
| 80° | 9180  | 1953  | 1489  |
| 85° | 6887  | 1055  | 780   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15292 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 156.8  | 2.4       |
| 10°-20°   | 436.3  | 6.7       |
| 20°-30°   | 628.2  | 9.7       |
| 30°-40°   | 707.4  | 10.9      |
| 40°-50°   | 676.7  | 10.5      |
| 50°-60°   | 553.9  | 8.6       |
| 60°-70°   | 373.5  | 5.8       |
| 70°-80°   | 187.3  | 2.9       |
| 80°-90°   | 51.0   | 0.8       |
| 90°-100°  | 62.6   | 1.0       |
| 100°-110° | 189.4  | 2.9       |
| 110°-120° | 322.4  | 5.0       |
| 120°-130° | 424.1  | 6.6       |
| 130°-140° | 476.7  | 7.4       |
| 140°-150° | 468.7  | 7.3       |
| 150°-160° | 394.6  | 6.1       |
| 160°-170° | 262.7  | 4.1       |
| 170°-180° | 92.0   | 1.4       |
| 0°-30°    | 1221.3 | 18.9      |
| 0°-40°    | 1928.7 | 29.8      |
| 0°-60°    | 3159.3 | 48.9      |
| 0°-90°    | 3771.1 | 58.3      |
| 90°-120°  | 574.3  | 8.9       |
| 90°-150°  | 1943.8 | 30.1      |
| 90°-180°  | 2693.0 | 41.7      |
| 0°-180°   | 6464.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1668 | 1668  | 1668 | 1668  | 1668 |      |
| 5°   | 1668 | 1662  | 1645 | 1658  | 1655 | 158  |
| 15°  | 1591 | 1576  | 1538 | 1532  | 1522 | 448  |
| 25°  | 1448 | 1414  | 1352 | 1323  | 1308 | 666  |
| 35°  | 1253 | 1204  | 1120 | 1062  | 1038 | 784  |
| 45°  | 1030 | 969   | 865  | 788   | 755  | 795  |
| 55°  | 782  | 716   | 601  | 522   | 495  | 701  |
| 65°  | 534  | 460   | 354  | 288   | 273  | 529  |
| 75°  | 283  | 218   | 143  | 130   | 127  | 301  |
| 85°  | 72   | 42    | 38   | 35    | 35   | 79   |
| 90°  | 1    | 8     | 18   | 21    | 23   | 8    |
| 95°  | 45   | 50    | 56   | 60    | 60   | 50   |
| 105° | 172  | 173   | 180  | 180   | 182  | 184  |
| 115° | 324  | 327   | 325  | 326   | 325  | 321  |
| 125° | 475  | 477   | 476  | 473   | 470  | 424  |
| 135° | 616  | 621   | 620  | 617   | 615  | 475  |
| 145° | 747  | 749   | 751  | 750   | 747  | 467  |
| 155° | 856  | 856   | 857  | 860   | 854  | 394  |
| 165° | 932  | 930   | 930  | 934   | 929  | 263  |
| 175° | 970  | 967   | 967  | 971   | 966  | 92   |
| 180° | 972  | 972   | 972  | 972   | 972  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1668.3 | 1668.3 | 1668.3 | 1668.3 | 1668.3 |
| 2.5°   | 1675.1 | 1669.7 | 1653.4 | 1668.3 | 1665.6 |
| 5°     | 1668.3 | 1661.5 | 1645.3 | 1657.5 | 1654.8 |
| 7.5°   | 1656.1 | 1649.4 | 1629.1 | 1637.2 | 1633.1 |
| 10°    | 1639.9 | 1630.4 | 1606.1 | 1607.4 | 1600.7 |
| 12.5°  | 1616.9 | 1606.1 | 1574.9 | 1573.6 | 1565.5 |
| 15°    | 1591.2 | 1576.3 | 1538.4 | 1531.6 | 1522.2 |
| 17.5°  | 1560.1 | 1543.8 | 1496.5 | 1482.9 | 1469.4 |
| 20°    | 1524.9 | 1503.2 | 1451.8 | 1434.2 | 1418.0 |
| 22.5°  | 1485.6 | 1459.9 | 1404.5 | 1381.5 | 1366.6 |
| 25°    | 1447.8 | 1413.9 | 1351.7 | 1323.3 | 1308.4 |
| 27.5°  | 1401.8 | 1365.2 | 1297.6 | 1259.7 | 1236.7 |
| 30°    | 1354.4 | 1313.8 | 1238.0 | 1192.0 | 1170.4 |
| 32.5°  | 1307.0 | 1259.7 | 1178.5 | 1127.1 | 1104.1 |
| 35°    | 1252.9 | 1204.2 | 1120.3 | 1062.1 | 1037.8 |
| 37.5°  | 1198.8 | 1146.0 | 1058.1 | 993.1  | 963.4  |
| 40°    | 1147.4 | 1087.8 | 991.8  | 921.4  | 890.3  |
| 42.5°  | 1089.2 | 1029.7 | 929.5  | 851.1  | 824.0  |
| 45°    | 1029.7 | 968.8  | 864.6  | 787.5  | 755.0  |
| 47.5°  | 971.5  | 903.8  | 801.0  | 717.1  | 688.7  |
| 50°    | 906.5  | 842.9  | 733.4  | 649.5  | 618.3  |
| 52.5°  | 848.4  | 778.0  | 669.8  | 581.8  | 554.7  |
| 55°    | 782.1  | 715.8  | 600.8  | 522.3  | 495.2  |
| 57.5°  | 722.5  | 650.8  | 534.5  | 460.0  | 437.0  |
| 60°    | 660.3  | 585.9  | 473.6  | 400.5  | 377.5  |
| 62.5°  | 598.0  | 523.6  | 411.3  | 343.7  | 319.3  |
| 65°    | 534.5  | 460.0  | 354.5  | 288.2  | 273.3  |
| 67.5°  | 470.9  | 395.1  | 292.3  | 242.2  | 226.0  |
| 70°    | 408.6  | 335.6  | 240.8  | 193.5  | 178.6  |
| 72.5°  | 346.4  | 274.7  | 190.8  | 154.2  | 150.2  |
| 75°    | 282.8  | 217.8  | 143.4  | 129.9  | 127.2  |
| 77.5°  | 224.6  | 165.1  | 112.3  | 104.2  | 101.5  |
| 80°    | 169.1  | 113.7  | 85.2   | 81.2   | 78.5   |
| 82.5°  | 116.4  | 70.4   | 60.9   | 56.8   | 56.8   |
| 85°    | 71.7   | 41.9   | 37.9   | 35.2   | 35.2   |
| 87.5°  | 32.5   | 17.6   | 17.6   | 16.2   | 14.9   |
| 90°    | 0.8    | 8.4    | 18.3   | 21.4   | 22.9   |
| 92.5°  | 22.9   | 27.5   | 32.1   | 34.4   | 32.8   |
| 95°    | 45.0   | 50.4   | 56.5   | 59.6   | 59.6   |
| 97.5°  | 74.1   | 77.9   | 82.5   | 86.3   | 85.5   |
| 100°   | 103.8  | 108.4  | 112.2  | 114.5  | 116.0  |
| 102.5° | 138.2  | 140.5  | 145.8  | 148.1  | 147.3  |
| 105°   | 171.8  | 173.3  | 180.2  | 180.2  | 181.7  |
| 107.5° | 211.5  | 212.2  | 215.3  | 217.6  | 216.8  |
| 110°   | 248.1  | 249.7  | 251.2  | 254.2  | 252.7  |

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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 286.3 | 287.1 | 287.1 | 290.9 | 290.9 |
| 115°   | 324.5 | 326.8 | 325.2 | 326.0 | 325.2 |
| 117.5° | 363.4 | 364.2 | 362.6 | 362.6 | 360.4 |
| 120°   | 399.3 | 403.9 | 400.1 | 399.3 | 397.8 |
| 122.5° | 436.7 | 439.8 | 438.2 | 435.9 | 433.7 |
| 125°   | 474.9 | 477.2 | 475.6 | 472.6 | 469.5 |
| 127.5° | 510.0 | 514.6 | 513.1 | 508.5 | 505.4 |
| 130°   | 545.1 | 551.2 | 548.9 | 545.9 | 540.5 |
| 132.5° | 580.2 | 586.3 | 584.8 | 581.0 | 577.2 |
| 135°   | 616.1 | 620.7 | 619.9 | 616.9 | 615.4 |
| 137.5° | 648.9 | 652.8 | 655.1 | 651.2 | 648.9 |
| 140°   | 683.3 | 687.1 | 687.9 | 687.1 | 681.8 |
| 142.5° | 714.6 | 718.4 | 720.0 | 719.2 | 715.4 |
| 145°   | 747.4 | 749.0 | 751.3 | 750.5 | 747.4 |
| 147.5° | 775.7 | 778.7 | 781.0 | 781.0 | 776.4 |
| 150°   | 805.5 | 807.0 | 808.5 | 808.5 | 803.9 |
| 152.5° | 829.9 | 832.2 | 832.9 | 834.5 | 830.7 |
| 155°   | 855.8 | 855.8 | 856.6 | 859.7 | 854.3 |
| 157.5° | 878.0 | 877.2 | 878.0 | 881.0 | 876.5 |
| 160°   | 898.6 | 897.1 | 897.1 | 900.9 | 897.8 |
| 162.5° | 916.9 | 914.6 | 915.4 | 919.2 | 913.9 |
| 165°   | 932.2 | 929.9 | 929.9 | 934.5 | 929.1 |
| 167.5° | 945.2 | 942.1 | 942.9 | 947.5 | 942.9 |
| 170°   | 955.9 | 952.8 | 952.8 | 958.2 | 952.8 |
| 172.5° | 964.3 | 961.2 | 961.2 | 965.8 | 960.4 |
| 175°   | 969.6 | 966.6 | 966.6 | 971.1 | 965.8 |
| 177.5° | 972.7 | 969.6 | 969.6 | 974.2 | 968.8 |
| 180°   | 971.9 | 971.9 | 971.9 | 971.9 | 971.9 |

(END OF REPORT)