

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: P1010858

Luminaire Tested: S123RDIP-B1165D585UB2750-4F0-XX-W2A-F\_5000K

Issue Date: 5/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1010858  
REPORT IS A COMBINATION OF REPORTS P993054 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-B1165D585UB2750-4F0-XX-W2A-F\_5000K  
Description: Define 3 Regressed Direct/Indirect Pendant with 5000K BioUP LEDs {m-DER=1.015}  
{m-EER=1.115}  
Light Source: -  
Ballast/Driver: -

**Summary**

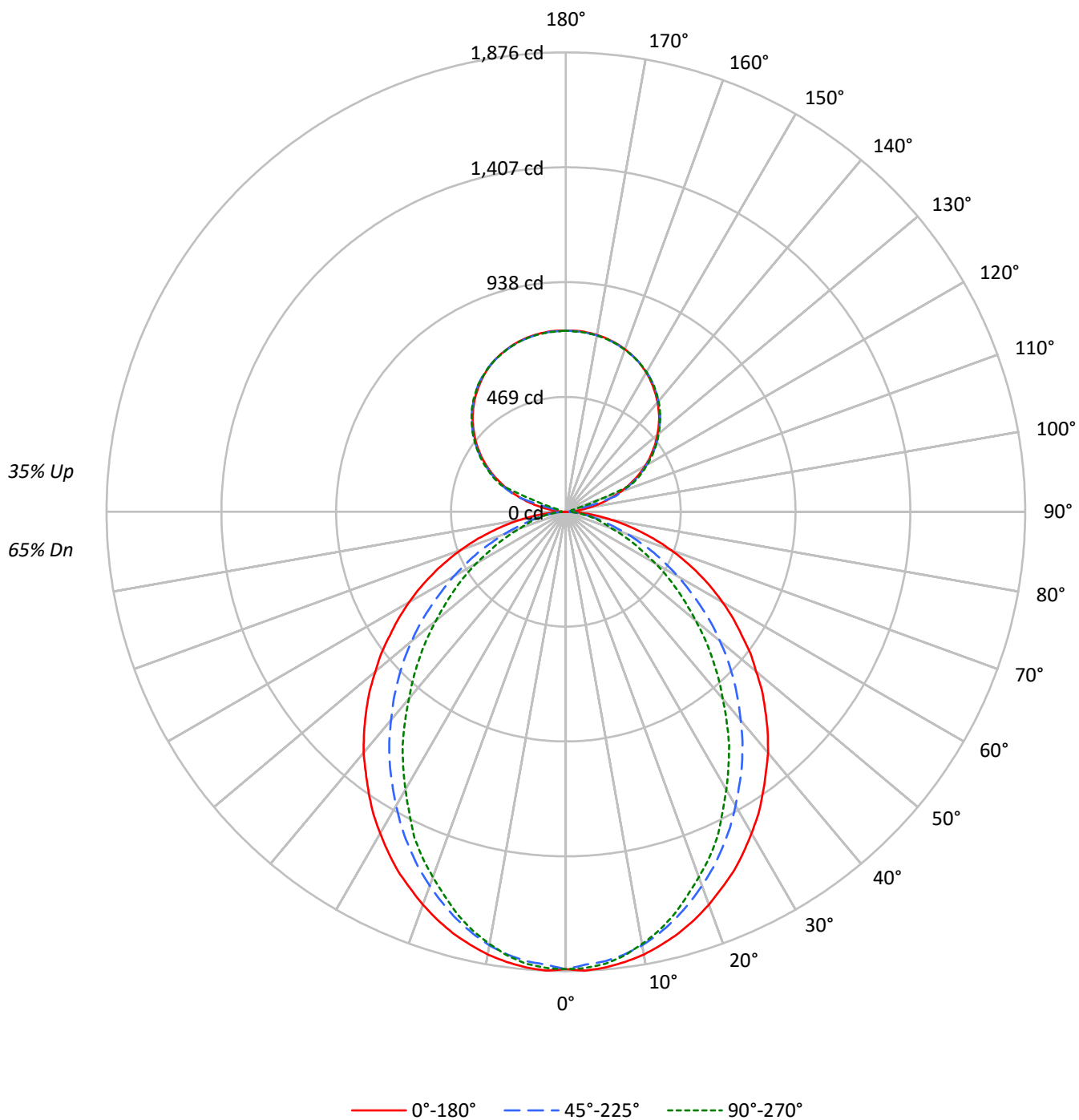
Lumens per Lamp: N/A  
Luminaire Lumens: 6476.0 lumens  
Efficiency: N/A  
Efficacy: 84.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

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 | 50 | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |    |
| 0   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 80 | 80 | 80 | 70 | 70 | 70 | 65 |    |    |
| 1   | 102 | 97  | 94  | 90  | 95  | 92  | 88  | 85  | 81 | 79 | 76 | 72 | 70 | 68 | 63 | 61 | 60 | 56 |    |    |
| 2   | 93  | 86  | 79  | 74  | 87  | 81  | 75  | 71  | 72 | 68 | 64 | 63 | 60 | 57 | 56 | 53 | 51 | 47 |    |    |
| 3   | 85  | 76  | 68  | 62  | 80  | 71  | 65  | 60  | 64 | 59 | 54 | 56 | 52 | 49 | 50 | 47 | 44 | 41 |    |    |
| 4   | 78  | 67  | 59  | 53  | 73  | 64  | 57  | 51  | 57 | 51 | 47 | 51 | 46 | 42 | 45 | 41 | 38 | 35 |    |    |
| 5   | 72  | 60  | 52  | 46  | 67  | 57  | 50  | 44  | 51 | 45 | 41 | 46 | 41 | 37 | 40 | 37 | 34 | 31 |    |    |
| 6   | 66  | 54  | 46  | 40  | 62  | 51  | 44  | 39  | 46 | 40 | 36 | 41 | 36 | 33 | 37 | 33 | 30 | 27 |    |    |
| 7   | 62  | 49  | 41  | 36  | 58  | 47  | 39  | 34  | 42 | 36 | 32 | 38 | 33 | 29 | 34 | 30 | 27 | 24 |    |    |
| 8   | 57  | 45  | 37  | 32  | 54  | 43  | 36  | 31  | 39 | 33 | 28 | 35 | 30 | 26 | 31 | 27 | 24 | 22 |    |    |
| 9   | 53  | 41  | 34  | 28  | 50  | 39  | 32  | 27  | 35 | 30 | 26 | 32 | 27 | 24 | 29 | 25 | 22 | 20 |    |    |
| 10  | 50  | 38  | 31  | 26  | 47  | 36  | 29  | 25  | 33 | 27 | 23 | 30 | 25 | 22 | 27 | 23 | 20 | 18 |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 20106 | 20106 | 20106 |
| 5°  | 20139 | 19395 | 19343 |
| 10° | 19980 | 18665 | 18298 |
| 15° | 19721 | 17764 | 17154 |
| 20° | 19381 | 16784 | 15875 |
| 25° | 19030 | 15765 | 14664 |
| 30° | 18581 | 14682 | 13231 |
| 35° | 18116 | 13618 | 11928 |
| 40° | 17681 | 12462 | 10487 |
| 45° | 17122 | 11332 | 9191  |
| 50° | 16505 | 10124 | 7851  |
| 55° | 15865 | 8832  | 6623  |
| 60° | 15255 | 7507  | 5376  |
| 65° | 14465 | 6147  | 4195  |
| 70° | 13473 | 4649  | 2999  |
| 75° | 12043 | 3148  | 2376  |
| 80° | 10282 | 2187  | 1667  |
| 85° | 7713  | 1181  | 873   |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 17122 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 175.6  | 2.7       |
| 10°-20°   | 488.5  | 7.5       |
| 20°-30°   | 703.3  | 10.9      |
| 30°-40°   | 792.1  | 12.2      |
| 40°-50°   | 757.6  | 11.7      |
| 50°-60°   | 620.2  | 9.6       |
| 60°-70°   | 418.1  | 6.5       |
| 70°-80°   | 209.7  | 3.2       |
| 80°-90°   | 56.3   | 0.9       |
| 90°-100°  | 26.1   | 0.4       |
| 100°-110° | 126.1  | 1.9       |
| 110°-120° | 309.0  | 4.8       |
| 120°-130° | 392.2  | 6.1       |
| 130°-140° | 419.0  | 6.5       |
| 140°-150° | 391.8  | 6.1       |
| 150°-160° | 316.0  | 4.9       |
| 160°-170° | 204.0  | 3.1       |
| 170°-180° | 70.3   | 1.1       |
| 0°-30°    | 1367.4 | 21.1      |
| 0°-40°    | 2159.5 | 33.3      |
| 0°-60°    | 3537.3 | 54.6      |
| 0°-90°    | 4221.5 | 65.2      |
| 90°-120°  | 461.1  | 7.1       |
| 90°-150°  | 1664.2 | 25.7      |
| 90°-180°  | 2255.0 | 34.8      |
| 0°-180°   | 6476.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1868 | 1868  | 1868 | 1868  | 1868 |      |
| 5°   | 1868 | 1860  | 1842 | 1856  | 1853 | 177  |
| 15°  | 1782 | 1765  | 1722 | 1715  | 1704 | 502  |
| 25°  | 1621 | 1583  | 1513 | 1482  | 1465 | 746  |
| 35°  | 1403 | 1348  | 1254 | 1189  | 1162 | 878  |
| 45°  | 1153 | 1085  | 968  | 882   | 845  | 890  |
| 55°  | 876  | 801   | 673  | 585   | 554  | 785  |
| 65°  | 598  | 515   | 397  | 323   | 306  | 592  |
| 75°  | 317  | 244   | 161  | 145   | 142  | 337  |
| 85°  | 80   | 47    | 42   | 39    | 39   | 88   |
| 90°  | 0    | 6     | 13   | 15    | 16   | 7    |
| 95°  | 34   | 11    | 17   | 21    | 21   | 40   |
| 105° | 164  | 170   | 120  | 23    | 24   | 174  |
| 115° | 307  | 310   | 315  | 321   | 323  | 303  |
| 125° | 433  | 437   | 440  | 441   | 442  | 387  |
| 135° | 539  | 542   | 544  | 546   | 544  | 415  |
| 145° | 622  | 626   | 627  | 628   | 628  | 389  |
| 155° | 685  | 684   | 685  | 687   | 684  | 316  |
| 165° | 722  | 721   | 720  | 725   | 721  | 204  |
| 175° | 740  | 737   | 737  | 741   | 737  | 70   |
| 180° | 740  | 740   | 740  | 740   | 740  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1867.9 | 1867.9 | 1867.9 | 1867.9 | 1867.9 |
| 2.5°   | 1875.5 | 1869.5 | 1851.3 | 1867.9 | 1864.9 |
| 5°     | 1867.9 | 1860.4 | 1842.2 | 1855.8 | 1852.8 |
| 7.5°   | 1854.3 | 1846.7 | 1824.0 | 1833.1 | 1828.5 |
| 10°    | 1836.1 | 1825.5 | 1798.2 | 1799.8 | 1792.2 |
| 12.5°  | 1810.4 | 1798.2 | 1763.4 | 1761.9 | 1752.8 |
| 15°    | 1781.6 | 1764.9 | 1722.5 | 1714.9 | 1704.3 |
| 17.5°  | 1746.7 | 1728.6 | 1675.5 | 1660.4 | 1645.2 |
| 20°    | 1707.4 | 1683.1 | 1625.5 | 1605.8 | 1587.7 |
| 22.5°  | 1663.4 | 1634.6 | 1572.5 | 1546.8 | 1530.1 |
| 25°    | 1621.0 | 1583.1 | 1513.4 | 1481.6 | 1465.0 |
| 27.5°  | 1569.5 | 1528.6 | 1452.8 | 1410.4 | 1384.7 |
| 30°    | 1516.5 | 1471.0 | 1386.2 | 1334.7 | 1310.4 |
| 32.5°  | 1463.4 | 1410.4 | 1319.5 | 1262.0 | 1236.2 |
| 35°    | 1402.8 | 1348.3 | 1254.4 | 1189.2 | 1162.0 |
| 37.5°  | 1342.2 | 1283.2 | 1184.7 | 1112.0 | 1078.6 |
| 40°    | 1284.7 | 1218.0 | 1110.5 | 1031.7 | 996.8  |
| 42.5°  | 1219.5 | 1152.9 | 1040.8 | 952.9  | 922.6  |
| 45°    | 1152.9 | 1084.7 | 968.1  | 881.7  | 845.3  |
| 47.5°  | 1087.7 | 1012.0 | 896.9  | 802.9  | 771.1  |
| 50°    | 1015.0 | 943.8  | 821.1  | 727.2  | 692.3  |
| 52.5°  | 949.9  | 871.1  | 749.9  | 651.4  | 621.1  |
| 55°    | 875.6  | 801.4  | 672.6  | 584.8  | 554.5  |
| 57.5°  | 809.0  | 728.7  | 598.4  | 515.1  | 489.3  |
| 60°    | 739.3  | 656.0  | 530.2  | 448.4  | 422.7  |
| 62.5°  | 669.6  | 586.3  | 460.5  | 384.8  | 357.5  |
| 65°    | 598.4  | 515.1  | 396.9  | 322.7  | 306.0  |
| 67.5°  | 527.2  | 442.4  | 327.2  | 271.2  | 253.0  |
| 70°    | 457.5  | 375.7  | 269.7  | 216.6  | 200.0  |
| 72.5°  | 387.8  | 307.5  | 213.6  | 172.7  | 168.2  |
| 75°    | 316.6  | 243.9  | 160.6  | 145.4  | 142.4  |
| 77.5°  | 251.5  | 184.8  | 125.7  | 116.7  | 113.6  |
| 80°    | 189.4  | 127.3  | 95.4   | 90.9   | 87.9   |
| 82.5°  | 130.3  | 78.8   | 68.2   | 63.6   | 63.6   |
| 85°    | 80.3   | 47.0   | 42.4   | 39.4   | 39.4   |
| 87.5°  | 36.4   | 19.7   | 19.7   | 18.2   | 16.7   |
| 90°    | 0.5    | 6.0    | 13.2   | 15.4   | 16.5   |
| 92.5°  | 12.6   | 9.3    | 14.3   | 18.1   | 18.7   |
| 95°    | 33.5   | 11.0   | 17.0   | 20.9   | 20.9   |
| 97.5°  | 61.0   | 45.6   | 17.6   | 22.0   | 22.5   |
| 100°   | 92.9   | 103.8  | 18.1   | 22.5   | 23.1   |
| 102.5° | 129.1  | 136.3  | 40.7   | 22.5   | 23.6   |
| 105°   | 163.7  | 169.8  | 120.3  | 23.1   | 24.2   |
| 107.5° | 200.5  | 205.5  | 213.7  | 129.1  | 57.1   |
| 110°   | 237.4  | 241.7  | 247.8  | 229.7  | 151.1  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 272.5 | 276.4 | 282.4 | 287.4 | 286.3 |
| 115°   | 307.1 | 310.4 | 315.4 | 320.9 | 323.1 |
| 117.5° | 341.2 | 345.0 | 347.8 | 352.2 | 352.7 |
| 120°   | 372.5 | 377.5 | 379.1 | 383.5 | 383.5 |
| 122.5° | 404.4 | 408.2 | 410.4 | 413.2 | 413.7 |
| 125°   | 432.9 | 437.3 | 439.5 | 440.6 | 441.7 |
| 127.5° | 461.5 | 465.9 | 468.7 | 470.3 | 469.2 |
| 130°   | 487.9 | 492.3 | 494.5 | 496.7 | 495.6 |
| 132.5° | 513.2 | 517.6 | 519.2 | 521.4 | 519.8 |
| 135°   | 539.0 | 542.3 | 544.5 | 546.1 | 544.5 |
| 137.5° | 561.0 | 565.4 | 566.5 | 569.2 | 568.1 |
| 140°   | 582.9 | 586.2 | 587.9 | 590.1 | 589.0 |
| 142.5° | 603.3 | 606.6 | 608.2 | 609.9 | 608.2 |
| 145°   | 622.0 | 625.8 | 626.9 | 628.0 | 628.0 |
| 147.5° | 640.1 | 642.8 | 643.9 | 645.0 | 642.3 |
| 150°   | 656.6 | 658.2 | 659.3 | 660.4 | 658.8 |
| 152.5° | 671.4 | 672.0 | 672.5 | 674.7 | 672.0 |
| 155°   | 685.1 | 684.0 | 684.6 | 687.3 | 684.0 |
| 157.5° | 696.1 | 696.1 | 695.6 | 698.9 | 694.5 |
| 160°   | 706.0 | 705.5 | 704.9 | 708.2 | 704.4 |
| 162.5° | 715.4 | 713.7 | 713.2 | 717.0 | 713.7 |
| 165°   | 722.5 | 720.9 | 720.3 | 724.7 | 720.9 |
| 167.5° | 728.5 | 726.3 | 726.3 | 730.7 | 726.3 |
| 170°   | 733.5 | 731.3 | 731.3 | 735.7 | 731.3 |
| 172.5° | 736.8 | 734.0 | 734.6 | 739.0 | 734.0 |
| 175°   | 739.5 | 736.8 | 737.3 | 741.2 | 736.8 |
| 177.5° | 740.6 | 737.9 | 738.4 | 742.8 | 737.3 |
| 180°   | 739.5 | 739.5 | 739.5 | 739.5 | 739.5 |

(END OF REPORT)