

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: P1026443

Luminaire Tested: S124RDIP-B575D365UB27-4F0-XX-W2A-F1

Issue Date: 5/6/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1026443  
REPORT IS A COMBINATION OF REPORTS P999503 AND P1007351  
Test Lab: INNOVATION CENTER  
Issue Date: 5/6/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDIP-B575D365UB27-4F0-XX-W2A-F1  
Description: Define 4 Regressed Direct/Indirect Pendant with 2700K BioUP LEDs {m-DER=0.473}  
{m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

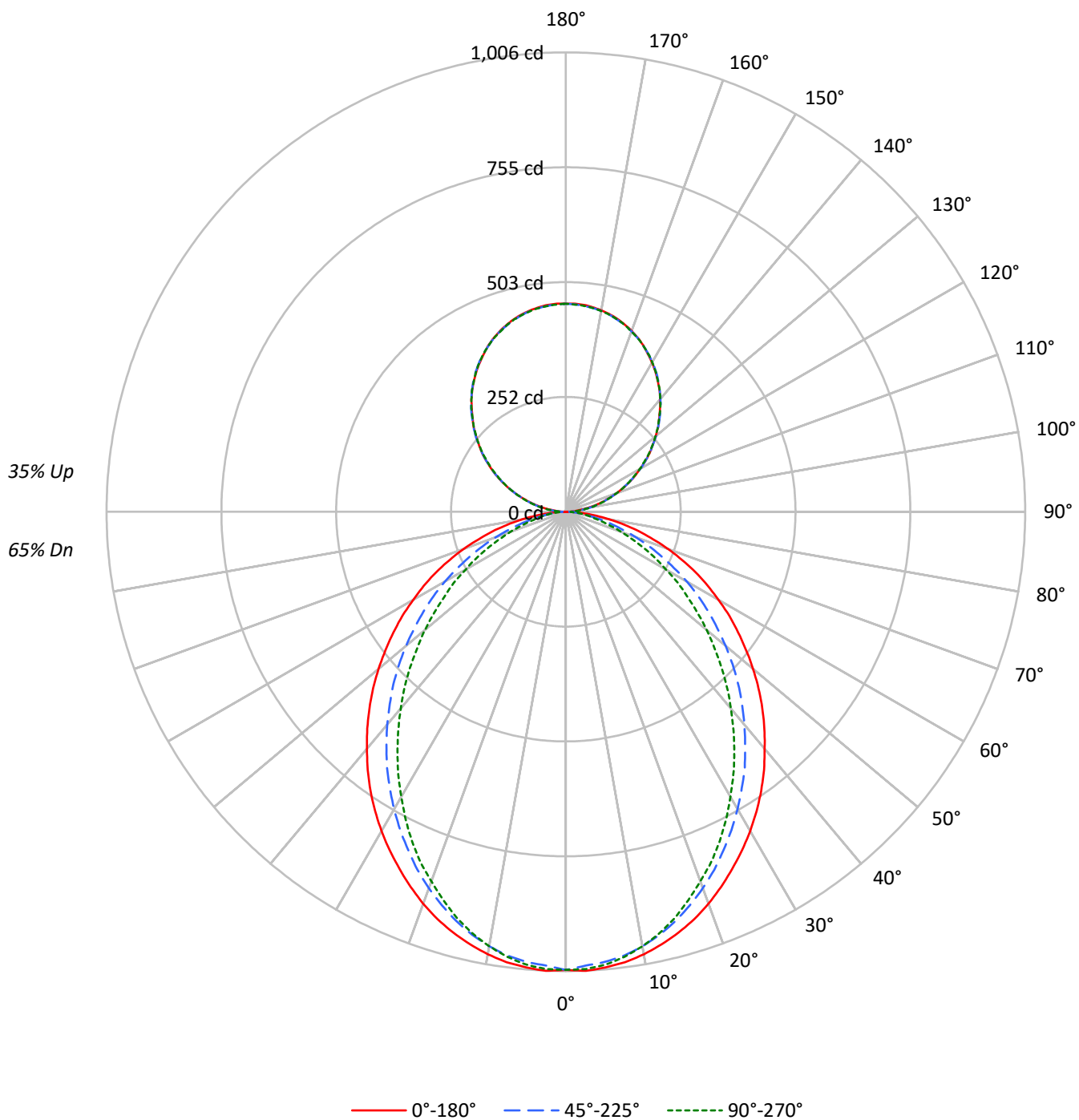
Lumens per Lamp: N/A  
Luminaire Lumens: 3583.0 lumens  
Efficiency: N/A  
Efficacy: 107.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.1')  
CIE Type: Semi-Direct

Input Watts (W): 33.3  
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   | 111 | 111 | 111 | 111 | 104 | 104 | 104 | 104 | 92 | 92 | 92 | 80 | 80 | 80 | 70 | 70 | 70 |
| 1   | 101 | 97  | 93  | 90  | 95  | 92  | 88  | 85  | 81 | 78 | 76 | 71 | 69 | 68 | 62 | 61 | 60 |
| 2   | 93  | 85  | 79  | 74  | 87  | 80  | 75  | 70  | 71 | 67 | 64 | 63 | 60 | 57 | 55 | 53 | 51 |
| 3   | 85  | 75  | 68  | 62  | 79  | 71  | 65  | 59  | 63 | 58 | 54 | 56 | 52 | 49 | 49 | 46 | 44 |
| 4   | 78  | 67  | 59  | 53  | 73  | 63  | 56  | 51  | 56 | 51 | 46 | 50 | 46 | 42 | 44 | 41 | 38 |
| 5   | 72  | 60  | 52  | 46  | 67  | 57  | 49  | 44  | 51 | 45 | 40 | 45 | 40 | 37 | 40 | 36 | 33 |
| 6   | 66  | 54  | 46  | 40  | 62  | 51  | 44  | 38  | 46 | 40 | 35 | 41 | 36 | 32 | 36 | 32 | 29 |
| 7   | 61  | 49  | 41  | 35  | 57  | 46  | 39  | 34  | 42 | 36 | 31 | 37 | 32 | 29 | 33 | 29 | 26 |
| 8   | 57  | 44  | 37  | 31  | 53  | 42  | 35  | 30  | 38 | 32 | 28 | 34 | 29 | 26 | 31 | 27 | 24 |
| 9   | 53  | 41  | 33  | 28  | 50  | 39  | 32  | 27  | 35 | 29 | 25 | 32 | 27 | 23 | 28 | 24 | 21 |
| 10  | 50  | 38  | 30  | 25  | 47  | 36  | 29  | 24  | 32 | 27 | 23 | 29 | 25 | 21 | 26 | 22 | 19 |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8181 | 8181 | 8181 |
| 5°  | 8182 | 7938 | 7938 |
| 10° | 8112 | 7687 | 7595 |
| 15° | 8000 | 7375 | 7191 |
| 20° | 7854 | 7020 | 6730 |
| 25° | 7672 | 6636 | 6280 |
| 30° | 7493 | 6245 | 5774 |
| 35° | 7298 | 5848 | 5280 |
| 40° | 7064 | 5421 | 4772 |
| 45° | 6845 | 4998 | 4269 |
| 50° | 6596 | 4535 | 3759 |
| 55° | 6327 | 4060 | 3232 |
| 60° | 6028 | 3557 | 2711 |
| 65° | 5739 | 2979 | 2210 |
| 70° | 5330 | 2371 | 1689 |
| 75° | 4804 | 1726 | 1181 |
| 80° | 4014 | 1059 | 850  |
| 85° | 3020 | 610  | 467  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6845 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 94.3   | 2.6       |
| 10°-20°   | 263.0  | 7.3       |
| 20°-30°   | 379.7  | 10.6      |
| 30°-40°   | 430.4  | 12.0      |
| 40°-50°   | 415.5  | 11.6      |
| 50°-60°   | 345.5  | 9.6       |
| 60°-70°   | 238.4  | 6.7       |
| 70°-80°   | 120.5  | 3.4       |
| 80°-90°   | 31.6   | 0.9       |
| 90°-100°  | 29.7   | 0.8       |
| 100°-110° | 88.9   | 2.5       |
| 110°-120° | 151.1  | 4.2       |
| 120°-130° | 199.3  | 5.6       |
| 130°-140° | 223.8  | 6.2       |
| 140°-150° | 220.0  | 6.1       |
| 150°-160° | 185.0  | 5.2       |
| 160°-170° | 123.1  | 3.4       |
| 170°-180° | 43.1   | 1.2       |
| 0°-30°    | 737.1  | 20.6      |
| 0°-40°    | 1167.5 | 32.6      |
| 0°-60°    | 1928.5 | 53.8      |
| 0°-90°    | 2319.0 | 64.7      |
| 90°-120°  | 269.7  | 7.5       |
| 90°-150°  | 912.8  | 25.5      |
| 90°-180°  | 1264.0 | 35.3      |
| 0°-180°   | 3583.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|------|------|-------|------|-------|------|------|
| 0°   | 1003 | 1003  | 1003 | 1003  | 1003 |      |
| 5°   | 1002 | 999   | 989  | 997   | 996  | 95   |
| 15°  | 954  | 947   | 928  | 926   | 921  | 269  |
| 25°  | 863  | 849   | 817  | 804   | 797  | 397  |
| 35°  | 746  | 721   | 683  | 657   | 643  | 466  |
| 45°  | 608  | 580   | 534  | 496   | 482  | 469  |
| 55°  | 461  | 430   | 380  | 340   | 326  | 412  |
| 65°  | 313  | 280   | 231  | 198   | 189  | 309  |
| 75°  | 167  | 138   | 102  | 84    | 80   | 176  |
| 85°  | 42   | 26    | 24   | 22    | 22   | 46   |
| 90°  | 1    | 5     | 8    | 10    | 11   | 4    |
| 95°  | 21   | 24    | 27   | 28    | 28   | 23   |
| 105° | 82   | 82    | 84   | 85    | 86   | 87   |
| 115° | 154  | 154   | 153  | 153   | 152  | 152  |
| 125° | 224  | 224   | 223  | 223   | 222  | 199  |
| 135° | 289  | 291   | 291  | 290   | 289  | 223  |
| 145° | 351  | 352   | 352  | 352   | 351  | 219  |
| 155° | 402  | 402   | 401  | 403   | 401  | 185  |
| 165° | 437  | 436   | 436  | 438   | 436  | 123  |
| 175° | 455  | 453   | 453  | 455   | 453  | 43   |
| 180° | 456  | 456   | 456  | 456   | 456  |      |

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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|--------|--------|--------|--------|--------|--------|
| 0°     | 1003.2 | 1003.2 | 1003.2 | 1003.2 | 1003.2 |
| 2.5°   | 1006.3 | 1003.2 | 994.8  | 1003.2 | 1002.4 |
| 5°     | 1001.7 | 998.6  | 989.4  | 997.1  | 995.5  |
| 7.5°   | 994.8  | 991.7  | 980.2  | 985.5  | 983.2  |
| 10°    | 984.0  | 980.2  | 966.3  | 969.4  | 966.3  |
| 12.5°  | 970.2  | 965.6  | 948.7  | 950.2  | 945.6  |
| 15°    | 954.0  | 947.1  | 927.9  | 926.4  | 921.0  |
| 17.5°  | 935.6  | 925.6  | 903.3  | 899.5  | 891.8  |
| 20°    | 913.3  | 903.3  | 877.2  | 871.1  | 861.1  |
| 22.5°  | 888.7  | 877.2  | 848.8  | 838.8  | 831.1  |
| 25°    | 862.6  | 848.8  | 817.3  | 804.2  | 796.6  |
| 27.5°  | 835.7  | 818.8  | 785.8  | 770.5  | 759.7  |
| 30°    | 807.3  | 788.1  | 752.0  | 732.8  | 720.5  |
| 32.5°  | 777.4  | 755.1  | 717.4  | 694.4  | 682.9  |
| 35°    | 745.9  | 721.3  | 682.9  | 656.8  | 642.9  |
| 37.5°  | 712.8  | 687.5  | 645.2  | 616.8  | 603.0  |
| 40°    | 677.5  | 652.2  | 608.4  | 576.1  | 562.3  |
| 42.5°  | 643.7  | 616.8  | 570.7  | 537.7  | 523.1  |
| 45°    | 608.4  | 580.0  | 533.9  | 496.2  | 482.4  |
| 47.5°  | 572.3  | 543.1  | 495.5  | 456.3  | 440.9  |
| 50°    | 535.4  | 505.4  | 456.3  | 417.9  | 403.3  |
| 52.5°  | 497.8  | 468.6  | 417.9  | 378.7  | 363.3  |
| 55°    | 460.9  | 430.2  | 380.2  | 340.3  | 325.7  |
| 57.5°  | 424.8  | 392.5  | 343.4  | 302.6  | 291.9  |
| 60°    | 385.6  | 354.9  | 305.7  | 265.8  | 253.5  |
| 62.5°  | 350.3  | 318.0  | 267.3  | 231.2  | 222.0  |
| 65°    | 313.4  | 280.4  | 231.2  | 198.2  | 189.0  |
| 67.5°  | 275.0  | 243.5  | 197.4  | 168.2  | 157.5  |
| 70°    | 238.9  | 206.6  | 162.8  | 137.5  | 129.8  |
| 72.5°  | 200.5  | 172.1  | 131.4  | 110.6  | 103.7  |
| 75°    | 166.7  | 138.3  | 102.2  | 84.5   | 79.9   |
| 77.5°  | 131.4  | 106.8  | 76.0   | 63.8   | 62.2   |
| 80°    | 97.6   | 75.3   | 52.2   | 49.9   | 49.2   |
| 82.5°  | 68.4   | 48.4   | 37.6   | 36.1   | 35.3   |
| 85°    | 41.5   | 26.1   | 23.8   | 22.3   | 22.3   |
| 87.5°  | 17.7   | 11.5   | 10.8   | 10.0   | 10.8   |
| 90°    | 1.1    | 4.9    | 7.8    | 9.9    | 10.6   |
| 92.5°  | 9.2    | 13.7   | 15.5   | 16.6   | 16.9   |
| 95°    | 21.1   | 24.3   | 26.8   | 27.8   | 27.8   |
| 97.5°  | 33.8   | 36.6   | 39.5   | 40.9   | 40.9   |
| 100°   | 49.3   | 50.7   | 53.9   | 54.6   | 54.6   |
| 102.5° | 65.5   | 65.9   | 68.7   | 69.8   | 70.1   |
| 105°   | 82.1   | 82.4   | 83.9   | 84.9   | 86.0   |
| 107.5° | 99.4   | 99.7   | 100.1  | 101.5  | 101.1  |
| 110°   | 117.0  | 117.7  | 117.3  | 116.6  | 117.7  |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 135.3 | 135.3 | 134.6 | 134.6 | 134.6 |
| 115°   | 153.6 | 153.6 | 152.9 | 152.6 | 152.2 |
| 117.5° | 170.9 | 170.9 | 170.5 | 169.5 | 168.4 |
| 120°   | 188.1 | 189.6 | 188.5 | 186.7 | 187.4 |
| 122.5° | 206.1 | 206.5 | 206.1 | 205.1 | 203.3 |
| 125°   | 223.7 | 223.7 | 223.4 | 222.7 | 222.0 |
| 127.5° | 239.6 | 240.6 | 239.9 | 239.2 | 238.9 |
| 130°   | 256.5 | 257.6 | 257.6 | 256.9 | 255.4 |
| 132.5° | 273.8 | 274.5 | 274.1 | 273.4 | 273.1 |
| 135°   | 288.6 | 290.7 | 290.7 | 290.0 | 288.9 |
| 137.5° | 305.1 | 306.2 | 306.9 | 305.8 | 306.2 |
| 140°   | 321.7 | 322.4 | 322.4 | 322.0 | 321.7 |
| 142.5° | 336.8 | 337.5 | 337.2 | 337.2 | 337.2 |
| 145°   | 350.6 | 352.0 | 352.3 | 352.0 | 350.9 |
| 147.5° | 364.7 | 366.4 | 366.1 | 365.7 | 365.4 |
| 150°   | 377.3 | 378.8 | 378.8 | 378.8 | 378.4 |
| 152.5° | 389.3 | 390.0 | 390.4 | 391.4 | 390.4 |
| 155°   | 401.7 | 401.7 | 401.3 | 402.7 | 401.3 |
| 157.5° | 412.2 | 411.5 | 411.5 | 412.6 | 411.5 |
| 160°   | 421.4 | 421.0 | 420.7 | 421.7 | 420.0 |
| 162.5° | 429.8 | 428.8 | 428.4 | 430.5 | 428.8 |
| 165°   | 437.2 | 436.2 | 435.5 | 437.6 | 436.2 |
| 167.5° | 443.2 | 441.8 | 441.8 | 443.9 | 441.8 |
| 170°   | 448.2 | 446.4 | 446.8 | 448.9 | 446.4 |
| 172.5° | 451.7 | 450.3 | 450.3 | 452.7 | 450.3 |
| 175°   | 454.9 | 453.1 | 452.7 | 455.2 | 452.7 |
| 177.5° | 456.3 | 454.5 | 454.5 | 457.0 | 454.2 |
| 180°   | 455.6 | 455.6 | 455.6 | 455.6 | 455.6 |

(END OF REPORT)