

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: P1001080

Luminaire Tested: S124RDR-B575DB27-4F0-XX-W2A-F

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1001080  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-B575DB27-4F0-XX-W2A-F  
Description: Define 4 Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

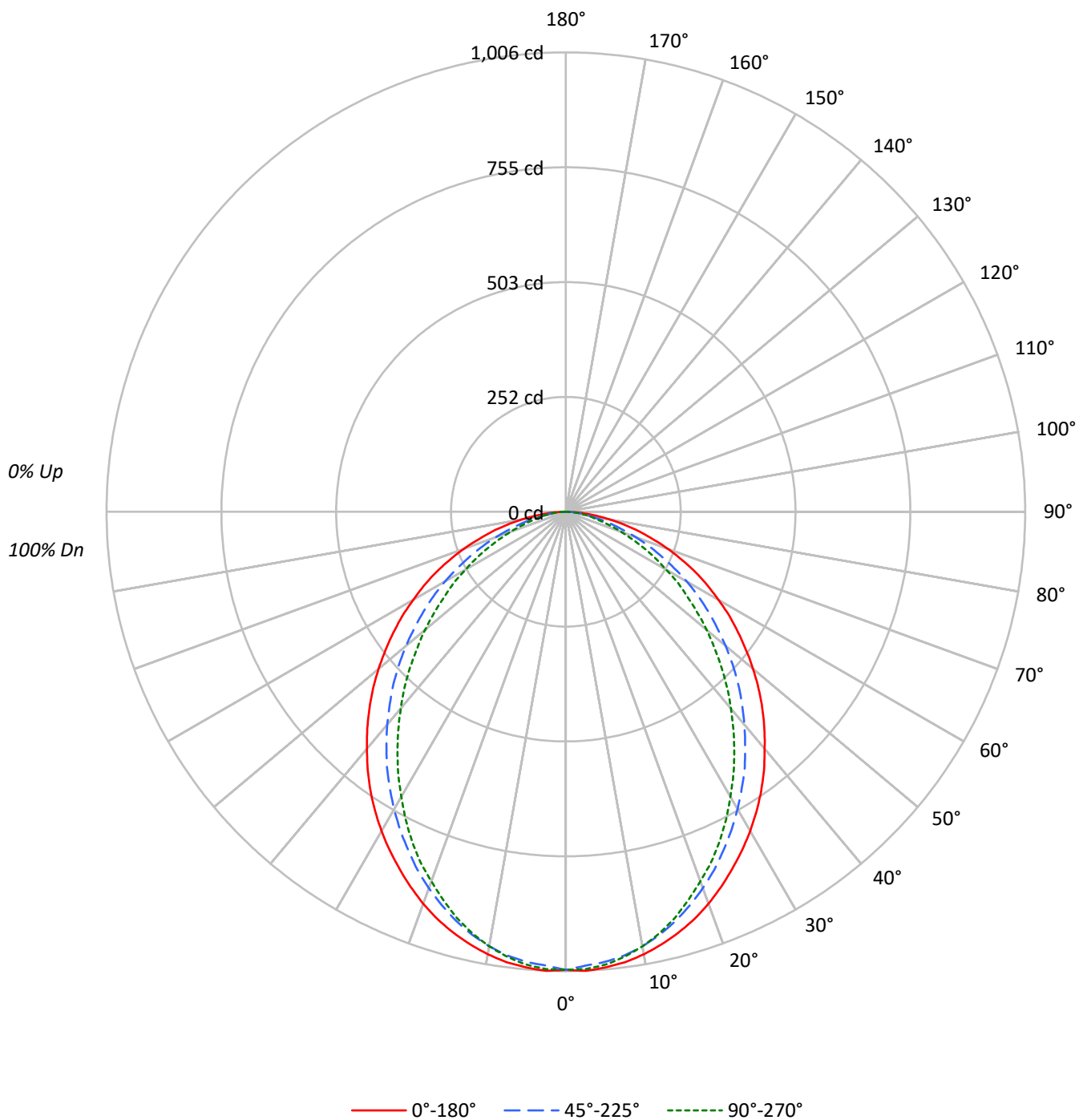
Lumens per Lamp: N/A  
Luminaire Lumens: 2318.0 lumens  
Efficiency: N/A  
Efficacy: 96.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 24  
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

TEST NUMBER: P1001080

CATALOG NUMBER: S124RDR-B575DB27-4F0-XX-W2A-F

### Luminous Intensity Polar Plot



TEST NUMBER: P1001080

CATALOG NUMBER: S124RDR-B575DB27-4F0-XX-W2A-F

**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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 56  | 50  | 62  | 55  | 50  |  | 61  | 54  | 49  |  | 59  |
| 6   | 72  | 59  | 51  | 45  | 70  | 58  | 50  | 44  | 57  | 49  | 44  |  | 55  | 49  | 44  |  | 53  |
| 7   | 67  | 54  | 46  | 40  | 65  | 53  | 45  | 40  | 52  | 45  | 39  |  | 50  | 44  | 39  |  | 49  |
| 8   | 63  | 50  | 41  | 36  | 61  | 49  | 41  | 36  | 48  | 40  | 35  |  | 46  | 40  | 35  |  | 45  |
| 9   | 59  | 46  | 38  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 43  | 36  | 32  |  | 42  |
| 10  | 55  | 42  | 35  | 29  | 54  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 29  |  | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8181 | 8181 | 8181 |
| 5°  | 8200 | 8099 | 8149 |
| 10° | 8148 | 8001 | 8001 |
| 15° | 8054 | 7833 | 7775 |
| 20° | 7925 | 7612 | 7472 |
| 25° | 7761 | 7354 | 7167 |
| 30° | 7602 | 7081 | 6784 |
| 35° | 7425 | 6798 | 6400 |
| 40° | 7212 | 6476 | 5986 |
| 45° | 7016 | 6157 | 5563 |
| 50° | 6792 | 5789 | 5116 |
| 55° | 6553 | 5405 | 4630 |
| 60° | 6289 | 4986 | 4134 |
| 65° | 6047 | 4461 | 3647 |
| 70° | 5696 | 3881 | 3095 |
| 75° | 5252 | 3220 | 2517 |
| 80° | 4583 | 2451 | 2310 |
| 85° | 3883 | 2227 | 2086 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 7016 cd/sqm

TEST NUMBER: P1001080

CATALOG NUMBER: S124RDR-B575DB27-4F0-XX-W2A-F

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 94.3   | 4.1       |
| 10°-20°   | 263.0  | 11.3      |
| 20°-30°   | 379.7  | 16.4      |
| 30°-40°   | 430.4  | 18.6      |
| 40°-50°   | 415.5  | 17.9      |
| 50°-60°   | 345.5  | 14.9      |
| 60°-70°   | 238.4  | 10.3      |
| 70°-80°   | 120.5  | 5.2       |
| 80°-90°   | 30.6   | 1.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 737.1  | 31.8      |
| 0°-40°    | 1167.5 | 50.4      |
| 0°-60°    | 1928.5 | 83.2      |
| 0°-90°    | 2318.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2318.0 | 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   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1001080

CATALOG NUMBER: S124RDR-B575DB27-4F0-XX-W2A-F

**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°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)