

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: P1004909

Luminaire Tested: S125R3DR-B850DB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1004909  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-B850DB2750-4F0-XX-W2A-F\_4000K  
Description: Define 5 3in Regressed Direct Recessed with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951  
Light Source: -  
Ballast/Driver: -

**Summary**

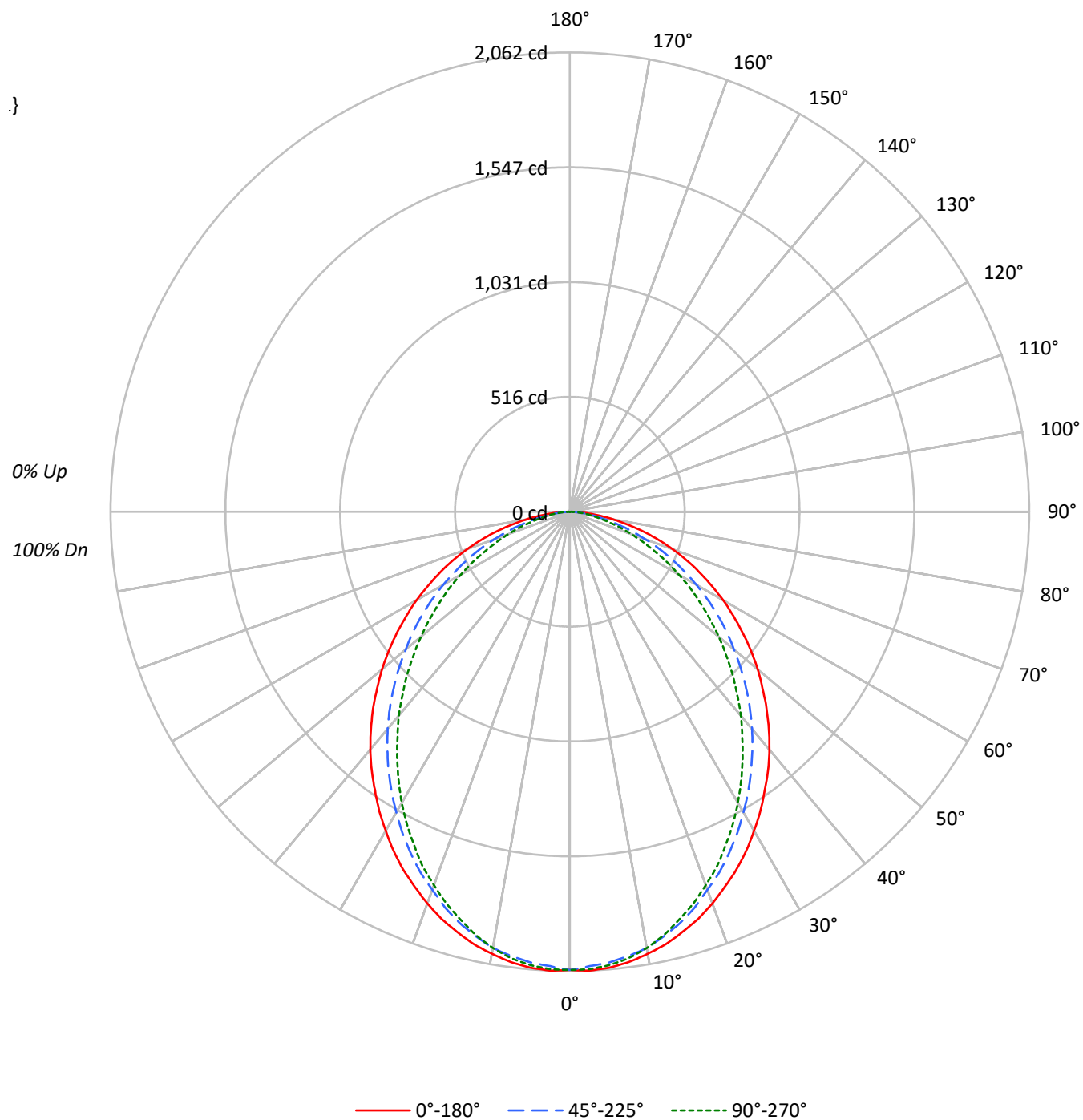
Lumens per Lamp: N/A  
Luminaire Lumens: 4860.0 lumens  
Efficiency: N/A  
Efficacy: 79.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.3  
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  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |     |     |  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |  | 100 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  | 89  | 87  |  | 85  |
| 2   | 100 | 92  | 86  | 80  | 98  | 90  | 84  | 79  | 87  | 82  | 78  |  | 84  | 79  | 76  |  | 81  | 77  | 74  |  | 72  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 65  |  | 72  | 67  | 64  |  | 61  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 64  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 64  | 59  | 55  |  | 53  |
| 5   | 78  | 65  | 57  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  |  | 60  | 54  | 49  |  | 58  | 53  | 48  |  | 46  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 44  |  | 55  | 48  | 43  |  | 53  | 47  | 43  |  | 41  |
| 7   | 67  | 54  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 39  |  | 50  | 43  | 39  |  | 49  | 43  | 38  |  | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 41  | 35  | 47  | 40  | 35  |  | 46  | 39  | 35  |  | 45  | 39  | 34  |  | 33  |
| 9   | 58  | 45  | 37  | 32  | 57  | 45  | 37  | 32  | 44  | 37  | 32  |  | 42  | 36  | 31  |  | 41  | 36  | 31  |  | 29  |
| 10  | 55  | 42  | 34  | 29  | 54  | 41  | 34  | 29  | 40  | 34  | 29  |  | 39  | 33  | 29  |  | 39  | 33  | 29  |  | 27  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 13179 | 13179 | 13179 |
| 5°  | 13210 | 13060 | 13140 |
| 10° | 13110 | 12938 | 12938 |
| 15° | 12954 | 12676 | 12572 |
| 20° | 12754 | 12309 | 12161 |
| 25° | 12521 | 11950 | 11686 |
| 30° | 12230 | 11529 | 11161 |
| 35° | 11933 | 11095 | 10572 |
| 40° | 11656 | 10642 | 9992  |
| 45° | 11318 | 10136 | 9362  |
| 50° | 10979 | 9586  | 8703  |
| 55° | 10586 | 9059  | 8000  |
| 60° | 10194 | 8421  | 7246  |
| 65° | 9728  | 7679  | 6383  |
| 70° | 9196  | 6751  | 5500  |
| 75° | 8461  | 5691  | 4577  |
| 80° | 7453  | 4472  | 3841  |
| 85° | 6285  | 3654  | 3426  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 11318 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 193.6  | 4.0       |
| 10°-20°   | 541.0  | 11.1      |
| 20°-30°   | 784.5  | 16.1      |
| 30°-40°   | 893.8  | 18.4      |
| 40°-50°   | 871.1  | 17.9      |
| 50°-60°   | 733.1  | 15.1      |
| 60°-70°   | 513.8  | 10.6      |
| 70°-80°   | 263.4  | 5.4       |
| 80°-90°   | 65.7   | 1.4       |
| 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°    | 1519.1 | 31.3      |
| 0°-40°    | 2412.9 | 49.6      |
| 0°-60°    | 4017.2 | 82.7      |
| 0°-90°    | 4860.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4860.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2057 | 2057  | 2057 | 2057  | 2057 |      |
| 5°  | 2054 | 2048  | 2031 | 2046  | 2043 | 195  |
| 15° | 1953 | 1944  | 1911 | 1909  | 1895 | 551  |
| 25° | 1771 | 1748  | 1690 | 1670  | 1653 | 815  |
| 35° | 1526 | 1488  | 1418 | 1373  | 1352 | 955  |
| 45° | 1249 | 1204  | 1119 | 1056  | 1033 | 963  |
| 55° | 948  | 898   | 811  | 741   | 716  | 847  |
| 65° | 642  | 589   | 506  | 444   | 421  | 635  |
| 75° | 342  | 295   | 230  | 196   | 185  | 361  |
| 85° | 86   | 58    | 50   | 48    | 47   | 98   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2057.0 | 2057.0 | 2057.0 | 2057.0 | 2057.0 |
| 2.5°  | 2061.7 | 2057.0 | 2041.5 | 2057.0 | 2055.5 |
| 5°    | 2053.9 | 2047.7 | 2030.6 | 2046.1 | 2043.0 |
| 7.5°  | 2038.4 | 2032.2 | 2012.0 | 2024.4 | 2021.3 |
| 10°   | 2015.1 | 2010.4 | 1988.7 | 1993.3 | 1988.7 |
| 12.5° | 1988.7 | 1982.4 | 1951.4 | 1954.5 | 1946.7 |
| 15°   | 1952.9 | 1943.6 | 1911.0 | 1909.4 | 1895.4 |
| 17.5° | 1915.6 | 1901.7 | 1862.8 | 1855.0 | 1844.2 |
| 20°   | 1870.6 | 1855.0 | 1805.3 | 1797.6 | 1783.6 |
| 22.5° | 1820.9 | 1805.3 | 1752.5 | 1735.4 | 1724.5 |
| 25°   | 1771.1 | 1747.8 | 1690.4 | 1670.2 | 1653.1 |
| 27.5° | 1715.2 | 1687.3 | 1626.7 | 1600.2 | 1583.2 |
| 30°   | 1653.1 | 1623.6 | 1558.3 | 1522.6 | 1508.6 |
| 32.5° | 1592.5 | 1556.7 | 1489.9 | 1449.5 | 1430.9 |
| 35°   | 1525.7 | 1488.4 | 1418.5 | 1373.4 | 1351.7 |
| 37.5° | 1462.0 | 1416.9 | 1345.5 | 1292.6 | 1270.9 |
| 40°   | 1393.6 | 1347.0 | 1272.4 | 1213.4 | 1194.7 |
| 42.5° | 1322.1 | 1274.0 | 1196.3 | 1140.4 | 1110.9 |
| 45°   | 1249.1 | 1204.1 | 1118.6 | 1056.5 | 1033.2 |
| 47.5° | 1173.0 | 1126.4 | 1040.9 | 977.2  | 950.8  |
| 50°   | 1101.5 | 1050.3 | 961.7  | 896.4  | 873.1  |
| 52.5° | 1023.8 | 971.0  | 888.7  | 817.2  | 793.9  |
| 55°   | 947.7  | 898.0  | 811.0  | 741.1  | 716.2  |
| 57.5° | 870.0  | 817.2  | 733.3  | 665.0  | 643.2  |
| 60°   | 795.5  | 741.1  | 657.2  | 588.8  | 565.5  |
| 62.5° | 716.2  | 665.0  | 579.5  | 517.4  | 494.1  |
| 65°   | 641.7  | 588.8  | 506.5  | 444.3  | 421.0  |
| 67.5° | 567.1  | 514.3  | 435.0  | 376.0  | 357.3  |
| 70°   | 490.9  | 438.1  | 360.4  | 312.3  | 293.6  |
| 72.5° | 416.4  | 365.1  | 293.6  | 250.1  | 239.3  |
| 75°   | 341.8  | 295.2  | 229.9  | 195.8  | 184.9  |
| 77.5° | 265.7  | 228.4  | 174.0  | 147.6  | 138.3  |
| 80°   | 202.0  | 164.7  | 121.2  | 107.2  | 104.1  |
| 82.5° | 139.8  | 107.2  | 80.8   | 76.1   | 74.6   |
| 85°   | 85.5   | 57.5   | 49.7   | 48.2   | 46.6   |
| 87.5° | 35.7   | 24.9   | 23.3   | 23.3   | 21.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)