

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: P987805

Luminaire Tested: S122R3DR-B865DB2750-4F0-XX-W2A-F\_2700K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P987805  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/2/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-B865DB2750-4F0-XX-W2A-F\_2700K  
Description: Define 2 3in Regressed Direct Recessed with 2700K BioUP LEDs {m-DER=0.473} {m-EER=0.52}  
Light Source: -  
Ballast/Driver: -

**Summary**

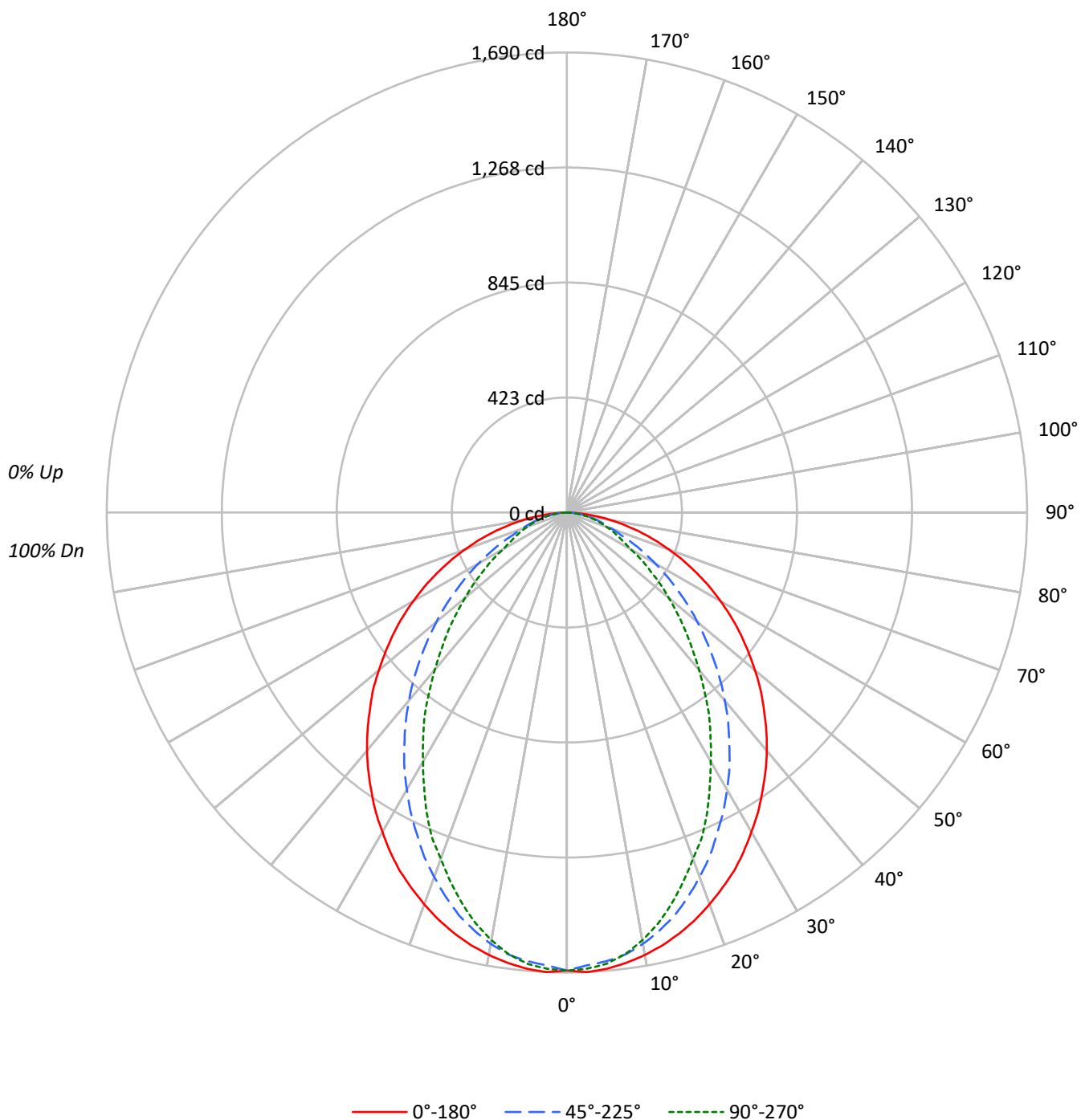
Lumens per Lamp: N/A  
Luminaire Lumens: 3460.0 lumens  
Efficiency: N/A  
Efficacy: 56.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 61.3  
Input Voltage (V): 120  
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  |     |     | 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   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  |  | 95  | 93  | 91  |  | 92  | 90  | 88  | 86  |
| 2   | 101 | 94  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 78  |  | 82  | 79  | 76  | 74  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 74  | 69  | 66  | 64  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  |  | 69  | 63  | 58  |  | 66  | 62  | 57  | 55  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  | 55  | 51  | 49  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  | 50  | 45  | 43  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 42  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  | 45  | 41  | 39  |
| 8   | 64  | 51  | 43  | 38  | 62  | 51  | 43  | 37  | 49  | 42  | 37  |  | 48  | 42  | 37  |  | 47  | 41  | 37  | 35  |
| 9   | 60  | 47  | 39  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  |  | 44  | 38  | 34  |  | 44  | 38  | 34  | 32  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 36  | 31  |  | 41  | 35  | 31  |  | 41  | 35  | 31  | 29  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 26631 | 26631 | 26631 |
| 5°  | 26733 | 26298 | 26442 |
| 10° | 26528 | 25867 | 25647 |
| 15° | 26222 | 25099 | 24377 |
| 20° | 25800 | 24006 | 22800 |
| 25° | 25369 | 22763 | 21273 |
| 30° | 24767 | 21484 | 19313 |
| 35° | 24184 | 20095 | 17594 |
| 40° | 23596 | 18655 | 15605 |
| 45° | 22903 | 17042 | 13803 |
| 50° | 22195 | 15408 | 12035 |
| 55° | 21471 | 13655 | 10335 |
| 60° | 20629 | 11809 | 8579  |
| 65° | 19675 | 9922  | 7813  |
| 70° | 18531 | 8173  | 7188  |
| 75° | 17131 | 7449  | 6703  |
| 80° | 15132 | 6664  | 6108  |
| 85° | 11896 | 5249  | 5249  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 22903 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 157.7  | 4.6       |
| 10°-20°   | 432.8  | 12.5      |
| 20°-30°   | 607.7  | 17.6      |
| 30°-40°   | 662.4  | 19.1      |
| 40°-50°   | 608.8  | 17.6      |
| 50°-60°   | 478.1  | 13.8      |
| 60°-70°   | 311.2  | 9.0       |
| 70°-80°   | 160.2  | 4.6       |
| 80°-90°   | 40.9   | 1.2       |
| 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°    | 1198.2 | 34.6      |
| 0°-40°    | 1860.7 | 53.8      |
| 0°-60°    | 2947.6 | 85.2      |
| 0°-90°    | 3460.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3460.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1682 | 1682  | 1682 | 1682  | 1682 |      |
| 5°  | 1682 | 1675  | 1655 | 1669  | 1664 | 160  |
| 15° | 1600 | 1583  | 1532 | 1503  | 1488 | 451  |
| 25° | 1452 | 1404  | 1303 | 1241  | 1218 | 668  |
| 35° | 1252 | 1174  | 1040 | 944   | 910  | 783  |
| 45° | 1023 | 921   | 761  | 653   | 617  | 790  |
| 55° | 778  | 659   | 495  | 404   | 374  | 695  |
| 65° | 525  | 402   | 265  | 213   | 209  | 521  |
| 75° | 280  | 174   | 122  | 111   | 110  | 296  |
| 85° | 66   | 34    | 29   | 29    | 29   | 78   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1682.4 | 1682.4 | 1682.4 | 1682.4 | 1682.4 |
| 2.5°  | 1690.0 | 1682.4 | 1665.6 | 1680.8 | 1677.8 |
| 5°    | 1682.4 | 1674.8 | 1655.0 | 1668.7 | 1664.1 |
| 7.5°  | 1668.7 | 1659.5 | 1638.2 | 1644.3 | 1636.7 |
| 10°   | 1650.4 | 1639.7 | 1609.3 | 1604.7 | 1595.6 |
| 12.5° | 1627.6 | 1613.9 | 1572.7 | 1563.6 | 1546.9 |
| 15°   | 1600.1 | 1583.4 | 1531.6 | 1502.7 | 1487.5 |
| 17.5° | 1568.2 | 1543.8 | 1479.9 | 1446.4 | 1422.0 |
| 20°   | 1531.6 | 1501.2 | 1425.1 | 1387.0 | 1353.5 |
| 22.5° | 1492.1 | 1457.0 | 1368.7 | 1317.0 | 1294.1 |
| 25°   | 1452.5 | 1403.7 | 1303.3 | 1240.8 | 1218.0 |
| 27.5° | 1405.3 | 1353.5 | 1242.4 | 1170.8 | 1135.8 |
| 30°   | 1355.0 | 1297.2 | 1175.4 | 1097.7 | 1056.6 |
| 32.5° | 1306.3 | 1236.3 | 1111.4 | 1020.1 | 982.0  |
| 35°   | 1251.5 | 1173.8 | 1039.9 | 944.0  | 910.5  |
| 37.5° | 1198.2 | 1114.5 | 972.9  | 867.8  | 829.8  |
| 40°   | 1141.9 | 1050.5 | 902.8  | 794.7  | 755.2  |
| 42.5° | 1084.0 | 986.6  | 832.8  | 720.1  | 682.1  |
| 45°   | 1023.1 | 921.1  | 761.3  | 653.2  | 616.6  |
| 47.5° | 965.3  | 857.2  | 692.7  | 584.6  | 551.1  |
| 50°   | 901.3  | 793.2  | 625.7  | 520.7  | 488.7  |
| 52.5° | 838.9  | 724.7  | 561.8  | 461.3  | 432.4  |
| 55°   | 778.0  | 659.2  | 494.8  | 403.5  | 374.5  |
| 57.5° | 715.6  | 593.8  | 435.4  | 350.2  | 325.8  |
| 60°   | 651.6  | 529.8  | 373.0  | 295.4  | 271.0  |
| 62.5° | 589.2  | 467.4  | 319.7  | 246.6  | 234.5  |
| 65°   | 525.3  | 401.9  | 264.9  | 213.2  | 208.6  |
| 67.5° | 464.4  | 341.0  | 213.2  | 187.3  | 182.7  |
| 70°   | 400.4  | 281.7  | 176.6  | 161.4  | 155.3  |
| 72.5° | 339.5  | 226.9  | 147.7  | 135.5  | 132.5  |
| 75°   | 280.1  | 173.6  | 121.8  | 111.1  | 109.6  |
| 77.5° | 220.8  | 123.3  | 95.9   | 89.8   | 86.8   |
| 80°   | 166.0  | 88.3   | 73.1   | 67.0   | 67.0   |
| 82.5° | 115.7  | 59.4   | 50.2   | 47.2   | 47.2   |
| 85°   | 65.5   | 33.5   | 28.9   | 28.9   | 28.9   |
| 87.5° | 24.4   | 12.2   | 12.2   | 10.7   | 10.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)