

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: P1037200

Luminaire Tested: S122RDS-B675DB2750-4F0-XX-W2A-F\_4000K

Issue Date: 5/2/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1037200  
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: S122RDS-B675DB2750-4F0-XX-W2A-F\_4000K  
Description: Define 2 Regressed Direct Surface with 4000K BioUP LEDs {m-DER=0.865} {m-EER=0.951}  
Light Source: -  
Ballast/Driver: -

**Summary**

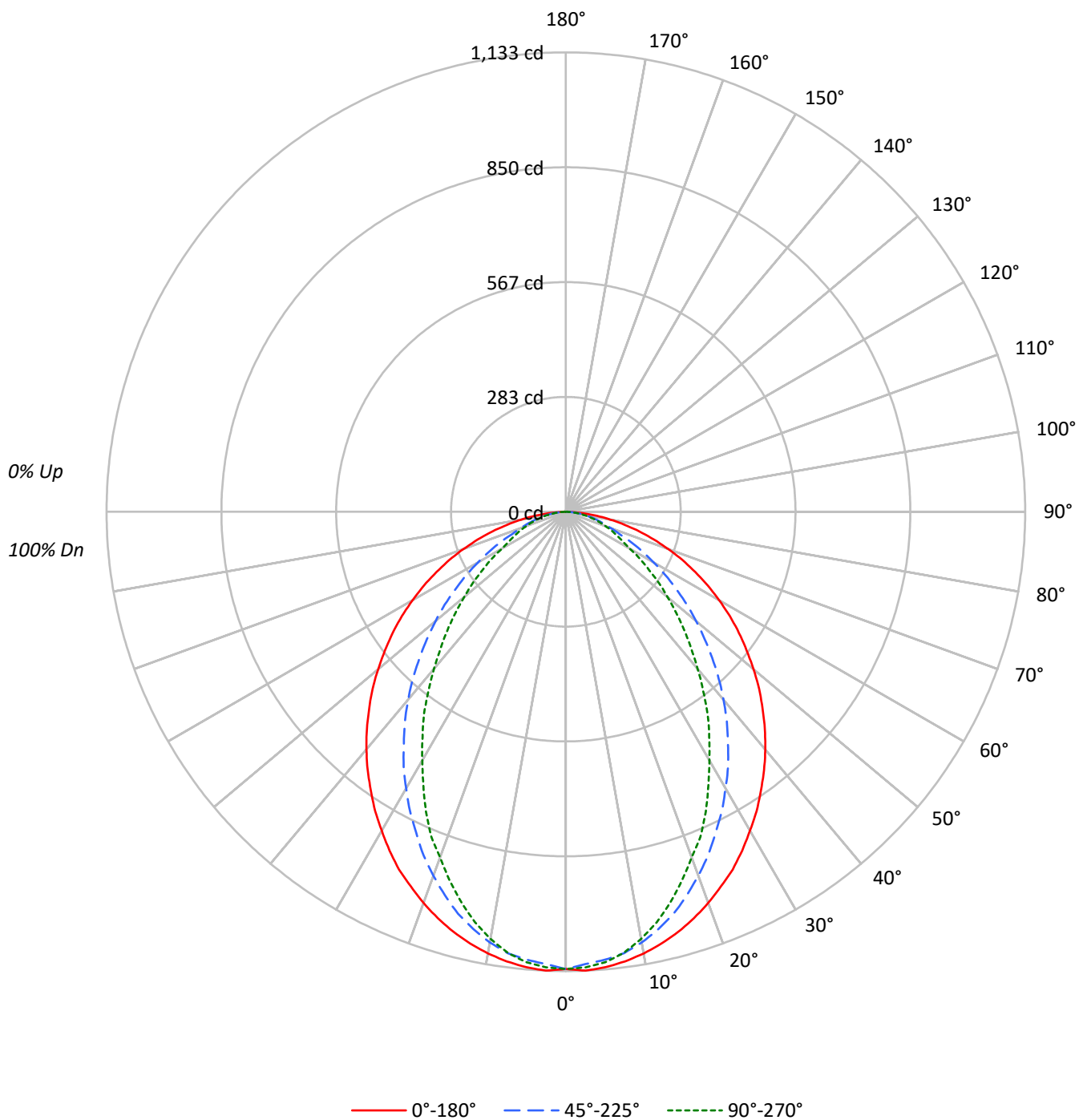
Lumens per Lamp: N/A  
Luminaire Lumens: 2319.0 lumens  
Efficiency: N/A  
Efficacy: 64.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.9  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  |  | 95  | 93  | 91  |  | 92  |
| 2   | 101 | 94  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 78  |  | 82  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 74  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  |  | 69  | 63  | 58  |  | 66  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  |
| 6   | 74  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 42  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  |
| 8   | 64  | 51  | 43  | 38  | 62  | 51  | 43  | 37  | 49  | 42  | 37  |  | 48  | 42  | 37  |  | 47  |
| 9   | 60  | 47  | 39  | 34  | 59  | 47  | 39  | 34  | 46  | 39  | 34  |  | 44  | 38  | 34  |  | 44  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 36  | 31  |  | 41  | 35  | 31  |  | 41  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17849 | 17849 | 17849 |
| 5°  | 17917 | 17625 | 17722 |
| 10° | 17779 | 17337 | 17189 |
| 15° | 17576 | 16824 | 16339 |
| 20° | 17293 | 16089 | 15282 |
| 25° | 17003 | 15256 | 14257 |
| 30° | 16600 | 14399 | 12945 |
| 35° | 16209 | 13469 | 11791 |
| 40° | 15814 | 12504 | 10458 |
| 45° | 15350 | 11421 | 9252  |
| 50° | 14877 | 10328 | 8067  |
| 55° | 14389 | 9151  | 6927  |
| 60° | 13825 | 7915  | 5749  |
| 65° | 13184 | 6652  | 5236  |
| 70° | 12422 | 5480  | 4818  |
| 75° | 11486 | 4991  | 4495  |
| 80° | 10137 | 4467  | 4093  |
| 85° | 7973  | 3523  | 3523  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 15350 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 105.7  | 4.6       |
| 10°-20°   | 290.1  | 12.5      |
| 20°-30°   | 407.3  | 17.6      |
| 30°-40°   | 444.0  | 19.1      |
| 40°-50°   | 408.1  | 17.6      |
| 50°-60°   | 320.5  | 13.8      |
| 60°-70°   | 208.6  | 9.0       |
| 70°-80°   | 107.4  | 4.6       |
| 80°-90°   | 27.4   | 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°    | 803.1  | 34.6      |
| 0°-40°    | 1247.1 | 53.8      |
| 0°-60°    | 1975.6 | 85.2      |
| 0°-90°    | 2319.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2319.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1128 | 1128  | 1128 | 1128  | 1128 |      |
| 5°  | 1128 | 1122  | 1109 | 1118  | 1115 | 107  |
| 15° | 1072 | 1061  | 1027 | 1007  | 997  | 302  |
| 25° | 974  | 941   | 874  | 832   | 816  | 448  |
| 35° | 839  | 787   | 697  | 633   | 610  | 525  |
| 45° | 686  | 617   | 510  | 438   | 413  | 530  |
| 55° | 521  | 442   | 332  | 270   | 251  | 466  |
| 65° | 352  | 269   | 178  | 143   | 140  | 349  |
| 75° | 188  | 116   | 82   | 74    | 74   | 199  |
| 85° | 44   | 22    | 19   | 19    | 19   | 53   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1127.6 | 1127.6 | 1127.6 | 1127.6 | 1127.6 |
| 2.5°  | 1132.7 | 1127.6 | 1116.3 | 1126.6 | 1124.5 |
| 5°    | 1127.6 | 1122.5 | 1109.2 | 1118.4 | 1115.3 |
| 7.5°  | 1118.4 | 1112.3 | 1098.0 | 1102.1 | 1097.0 |
| 10°   | 1106.1 | 1099.0 | 1078.6 | 1075.5 | 1069.4 |
| 12.5° | 1090.8 | 1081.7 | 1054.1 | 1048.0 | 1036.8 |
| 15°   | 1072.5 | 1061.2 | 1026.6 | 1007.2 | 997.0  |
| 17.5° | 1051.0 | 1034.7 | 991.9  | 969.4  | 953.1  |
| 20°   | 1026.6 | 1006.1 | 955.1  | 929.6  | 907.2  |
| 22.5° | 1000.0 | 976.6  | 917.4  | 882.7  | 867.4  |
| 25°   | 973.5  | 940.8  | 873.5  | 831.6  | 816.3  |
| 27.5° | 941.9  | 907.2  | 832.7  | 784.7  | 761.2  |
| 30°   | 908.2  | 869.4  | 787.8  | 735.7  | 708.2  |
| 32.5° | 875.5  | 828.6  | 744.9  | 683.7  | 658.2  |
| 35°   | 838.8  | 786.8  | 697.0  | 632.7  | 610.2  |
| 37.5° | 803.1  | 747.0  | 652.1  | 581.6  | 556.1  |
| 40°   | 765.3  | 704.1  | 605.1  | 532.7  | 506.1  |
| 42.5° | 726.5  | 661.2  | 558.2  | 482.7  | 457.2  |
| 45°   | 685.7  | 617.4  | 510.2  | 437.8  | 413.3  |
| 47.5° | 647.0  | 574.5  | 464.3  | 391.8  | 369.4  |
| 50°   | 604.1  | 531.6  | 419.4  | 349.0  | 327.6  |
| 52.5° | 562.3  | 485.7  | 376.5  | 309.2  | 289.8  |
| 55°   | 521.4  | 441.8  | 331.6  | 270.4  | 251.0  |
| 57.5° | 479.6  | 398.0  | 291.8  | 234.7  | 218.4  |
| 60°   | 436.7  | 355.1  | 250.0  | 198.0  | 181.6  |
| 62.5° | 394.9  | 313.3  | 214.3  | 165.3  | 157.1  |
| 65°   | 352.0  | 269.4  | 177.6  | 142.9  | 139.8  |
| 67.5° | 311.2  | 228.6  | 142.9  | 125.5  | 122.5  |
| 70°   | 268.4  | 188.8  | 118.4  | 108.2  | 104.1  |
| 72.5° | 227.6  | 152.0  | 99.0   | 90.8   | 88.8   |
| 75°   | 187.8  | 116.3  | 81.6   | 74.5   | 73.5   |
| 77.5° | 148.0  | 82.7   | 64.3   | 60.2   | 58.2   |
| 80°   | 111.2  | 59.2   | 49.0   | 44.9   | 44.9   |
| 82.5° | 77.6   | 39.8   | 33.7   | 31.6   | 31.6   |
| 85°   | 43.9   | 22.4   | 19.4   | 19.4   | 19.4   |
| 87.5° | 16.3   | 8.2    | 8.2    | 7.1    | 7.1    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)