

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: P1055256

Luminaire Tested: S122R3DR-S865D835-X4F0-XX-UDD-FLL-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1055256  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DR-S865D835-X4F0-XX-UDD-FLL-W  
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

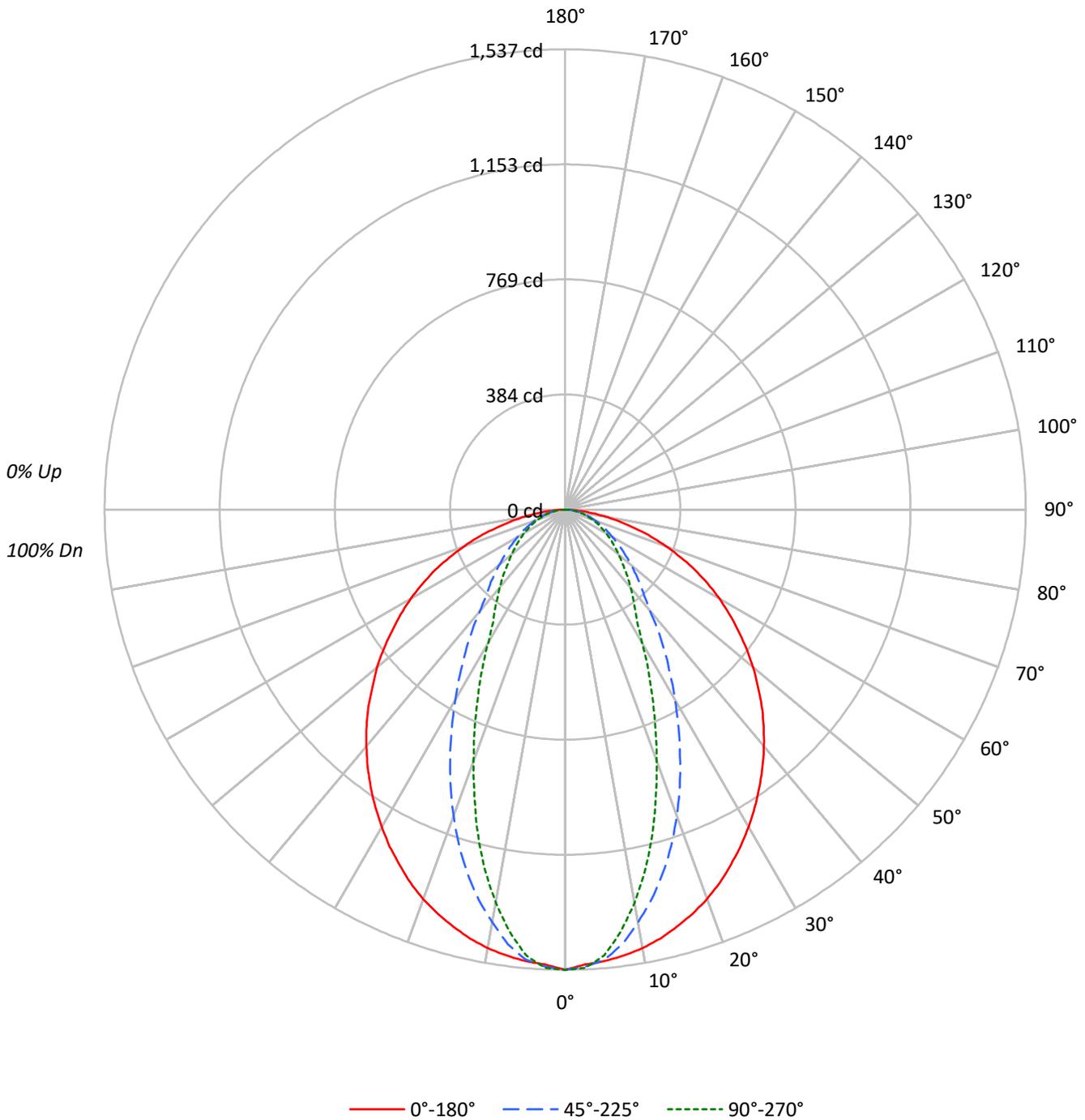
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2324.7 lumens  
Efficiency: N/A  
Efficacy: 67.0 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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  | 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 | 99  | 108 | 104 | 101 | 97  | 100 | 97  | 94  | 96  | 94  | 92  | 92  | 91  | 89  | 87  |    |    |    |   |
| 2   | 102 | 95  | 89  | 84  | 99  | 93  | 87  | 83  | 89  | 85  | 81  | 86  | 82  | 79  | 83  | 80  | 77  | 75  |    |    |    |   |
| 3   | 94  | 85  | 78  | 72  | 92  | 83  | 77  | 71  | 80  | 75  | 70  | 78  | 73  | 69  | 75  | 71  | 68  | 66  |    |    |    |   |
| 4   | 87  | 76  | 69  | 63  | 85  | 75  | 68  | 62  | 73  | 66  | 61  | 71  | 65  | 61  | 68  | 64  | 60  | 58  |    |    |    |   |
| 5   | 81  | 69  | 61  | 55  | 79  | 68  | 61  | 55  | 66  | 60  | 55  | 64  | 59  | 54  | 63  | 58  | 54  | 52  |    |    |    |   |
| 6   | 75  | 63  | 55  | 50  | 74  | 63  | 55  | 49  | 61  | 54  | 49  | 59  | 53  | 49  | 58  | 52  | 48  | 46  |    |    |    |   |
| 7   | 71  | 58  | 50  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 55  | 49  | 44  | 53  | 48  | 44  | 42  |    |    |    |   |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |    |   |
| 9   | 62  | 50  | 43  | 37  | 61  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 46  | 41  | 37  | 35  |    |    |    |   |
| 10  | 59  | 47  | 39  | 35  | 58  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 29118 | 29118 | 29118 |
| 5°  | 28790 | 28693 | 28423 |
| 10° | 28603 | 26922 | 25637 |
| 15° | 28280 | 24677 | 22054 |
| 20° | 27904 | 21944 | 18006 |
| 25° | 27347 | 18967 | 14372 |
| 30° | 26764 | 16025 | 11216 |
| 35° | 26156 | 13405 | 9423  |
| 40° | 25521 | 10870 | 8392  |
| 45° | 24859 | 9504  | 7505  |
| 50° | 24128 | 8409  | 6856  |
| 55° | 23303 | 7597  | 6368  |
| 60° | 22496 | 6915  | 5941  |
| 65° | 21429 | 6339  | 5590  |
| 70° | 19859 | 5911  | 5268  |
| 75° | 17590 | 5358  | 4985  |
| 80° | 15002 | 5052  | 4626  |
| 85° | 10326 | 4478  | 4195  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 24859 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 140.8  | 6.1       |
| 10°-20°   | 355.6  | 15.3      |
| 20°-30°   | 438.2  | 18.8      |
| 30°-40°   | 420.4  | 18.1      |
| 40°-50°   | 362.6  | 15.6      |
| 50°-60°   | 281.3  | 12.1      |
| 60°-70°   | 192.6  | 8.3       |
| 70°-80°   | 104.6  | 4.5       |
| 80°-90°   | 28.7   | 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°    | 934.6  | 40.2      |
| 0°-40°    | 1355.0 | 58.3      |
| 0°-60°    | 1998.9 | 86.0      |
| 0°-90°    | 2324.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2324.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1537 | 1537  | 1537 | 1537  | 1537 |      |
| 5°  | 1514 | 1536  | 1509 | 1489  | 1494 | 144  |
| 15° | 1442 | 1398  | 1258 | 1155  | 1124 | 407  |
| 25° | 1308 | 1168  | 907  | 740   | 688  | 603  |
| 35° | 1131 | 897   | 580  | 432   | 407  | 707  |
| 45° | 928  | 624   | 355  | 293   | 280  | 715  |
| 55° | 706  | 375   | 230  | 199   | 193  | 631  |
| 65° | 478  | 204   | 141  | 128   | 125  | 472  |
| 75° | 240  | 94    | 73   | 69    | 68   | 257  |
| 85° | 48   | 23    | 21   | 21    | 19   | 61   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1536.9 | 1536.9 | 1536.9 | 1536.9 | 1536.9 |
| 2.5°  | 1520.2 | 1545.9 | 1527.9 | 1527.9 | 1531.8 |
| 5°    | 1513.8 | 1535.7 | 1508.7 | 1489.4 | 1494.5 |
| 7.5°  | 1502.2 | 1517.7 | 1463.7 | 1422.6 | 1421.3 |
| 10°   | 1486.8 | 1488.1 | 1399.4 | 1345.5 | 1332.6 |
| 12.5° | 1467.5 | 1447.0 | 1333.9 | 1252.9 | 1233.7 |
| 15°   | 1441.8 | 1398.2 | 1258.1 | 1155.3 | 1124.4 |
| 17.5° | 1414.9 | 1348.0 | 1177.1 | 1048.6 | 1006.2 |
| 20°   | 1384.0 | 1287.6 | 1088.4 | 942.0  | 893.1  |
| 22.5° | 1349.3 | 1229.8 | 999.8  | 839.1  | 787.7  |
| 25°   | 1308.2 | 1168.1 | 907.3  | 740.2  | 687.5  |
| 27.5° | 1268.4 | 1105.2 | 818.6  | 652.8  | 598.8  |
| 30°   | 1223.4 | 1037.0 | 732.5  | 569.3  | 512.7  |
| 32.5° | 1178.4 | 967.7  | 652.8  | 489.6  | 447.2  |
| 35°   | 1130.9 | 897.0  | 579.6  | 431.8  | 407.4  |
| 37.5° | 1082.0 | 827.6  | 510.2  | 393.2  | 371.4  |
| 40°   | 1031.9 | 758.2  | 439.5  | 356.0  | 339.3  |
| 42.5° | 980.5  | 690.1  | 390.7  | 325.1  | 309.7  |
| 45°   | 927.8  | 624.5  | 354.7  | 293.0  | 280.1  |
| 47.5° | 871.3  | 559.0  | 320.0  | 266.0  | 254.4  |
| 50°   | 818.6  | 496.0  | 285.3  | 241.6  | 232.6  |
| 52.5° | 762.0  | 434.4  | 257.0  | 219.7  | 212.0  |
| 55°   | 705.5  | 375.2  | 230.0  | 199.2  | 192.8  |
| 57.5° | 650.2  | 318.7  | 204.3  | 179.9  | 174.8  |
| 60°   | 593.7  | 273.7  | 182.5  | 161.9  | 156.8  |
| 62.5° | 535.9  | 237.7  | 161.9  | 145.2  | 140.1  |
| 65°   | 478.0  | 204.3  | 141.4  | 128.5  | 124.7  |
| 67.5° | 417.6  | 172.2  | 123.4  | 113.1  | 110.5  |
| 70°   | 358.5  | 143.9  | 106.7  | 97.7   | 95.1   |
| 72.5° | 300.7  | 116.9  | 90.0   | 83.5   | 81.0   |
| 75°   | 240.3  | 93.8   | 73.2   | 69.4   | 68.1   |
| 77.5° | 187.6  | 73.2   | 59.1   | 56.5   | 55.3   |
| 80°   | 137.5  | 54.0   | 46.3   | 43.7   | 42.4   |
| 82.5° | 91.2   | 37.3   | 33.4   | 32.1   | 30.8   |
| 85°   | 47.5   | 23.1   | 20.6   | 20.6   | 19.3   |
| 87.5° | 15.4   | 10.3   | 10.3   | 10.3   | 9.0    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)