

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: P1058114

Luminaire Tested: S122RDR-S865D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058114  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S865D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

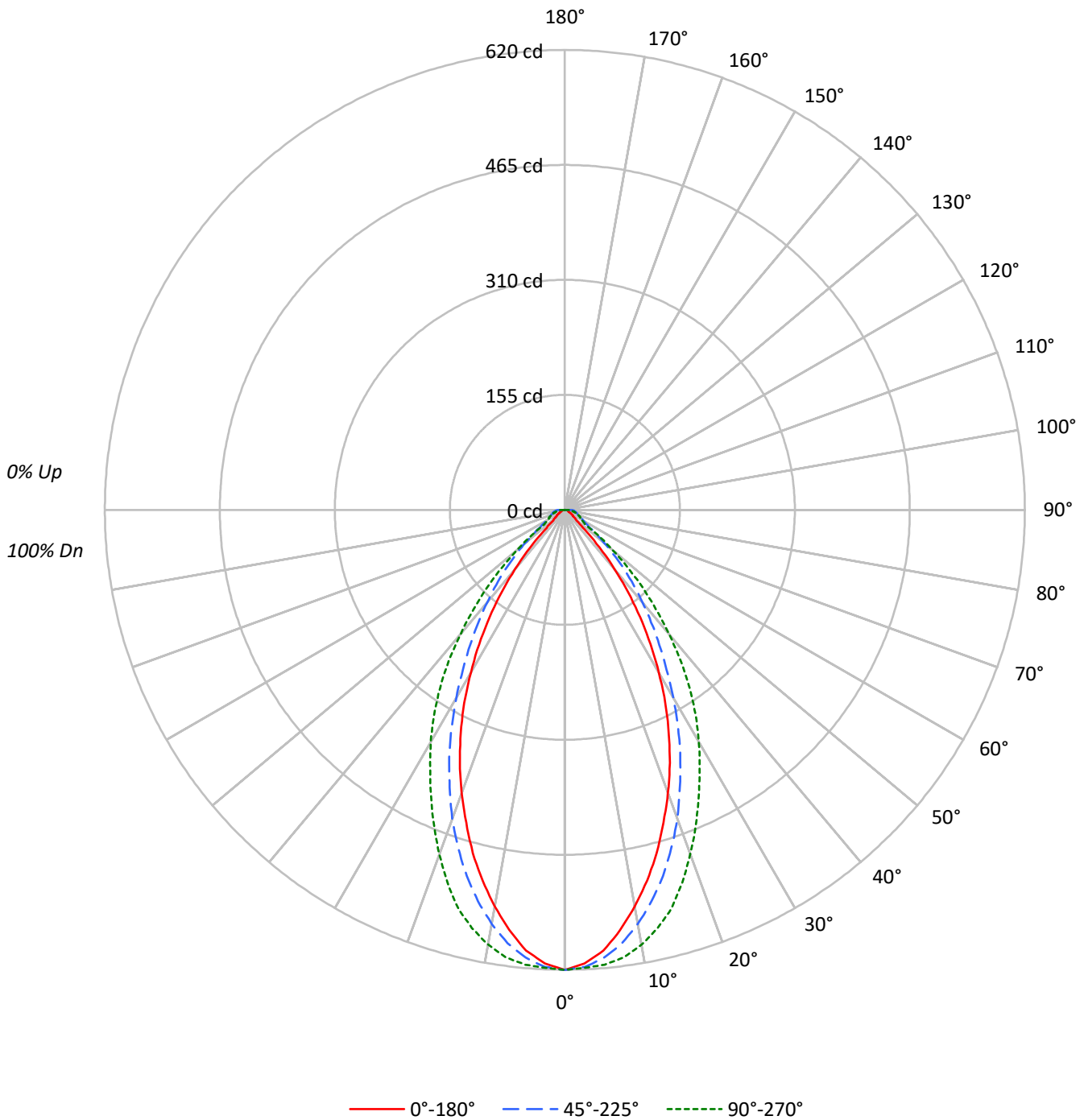
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 668.6 lumens  
Efficiency: N/A  
Efficacy: 19.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |   |
| 2   | 105 | 99  | 94  | 90  | 102 | 97  | 92  | 89  | 94  | 90  | 87  | 91  | 87  | 85  | 88  | 85  | 83  | 81  |    |    |    |   |
| 3   | 98  | 91  | 85  | 80  | 96  | 89  | 84  | 79  | 86  | 82  | 78  | 84  | 80  | 77  | 82  | 78  | 75  | 74  |    |    |    |   |
| 4   | 92  | 83  | 77  | 72  | 90  | 82  | 76  | 71  | 80  | 75  | 70  | 78  | 73  | 70  | 76  | 72  | 69  | 67  |    |    |    |   |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 70  | 65  | 74  | 69  | 64  | 72  | 68  | 64  | 71  | 67  | 63  | 61  |    |    |    |   |
| 6   | 82  | 72  | 65  | 60  | 80  | 71  | 64  | 59  | 69  | 63  | 59  | 68  | 63  | 59  | 66  | 62  | 58  | 57  |    |    |    |   |
| 7   | 77  | 67  | 60  | 55  | 76  | 66  | 59  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |    |   |
| 8   | 73  | 62  | 55  | 51  | 72  | 62  | 55  | 51  | 61  | 55  | 50  | 59  | 54  | 50  | 58  | 54  | 50  | 48  |    |    |    |   |
| 9   | 69  | 58  | 52  | 47  | 68  | 58  | 51  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  |    |    |    |   |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 54  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 44  | 42  |    |    |    |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11444 | 11444 | 11444 |
| 5°  | 11049 | 11225 | 11401 |
| 10° | 10174 | 10620 | 11154 |
| 15° | 9149  | 9760  | 10623 |
| 20° | 7980  | 8703  | 9706  |
| 25° | 6749  | 7499  | 8686  |
| 30° | 5393  | 6228  | 7696  |
| 35° | 3987  | 5005  | 6611  |
| 40° | 2520  | 3922  | 5266  |
| 45° | 992   | 2946  | 3875  |
| 50° | 511   | 1978  | 2388  |
| 55° | 421   | 1300  | 1071  |
| 60° | 306   | 1052  | 963   |
| 65° | 258   | 987   | 987   |
| 70° | 259   | 1025  | 960   |
| 75° | 342   | 1183  | 1020  |
| 80° | 510   | 1520  | 1137  |
| 85° | 762   | 2519  | 1503  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 5034 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 56.7   | 8.5       |
| 10°-20°   | 143.3  | 21.4      |
| 20°-30°   | 170.3  | 25.5      |
| 30°-40°   | 141.6  | 21.2      |
| 40°-50°   | 79.1   | 11.8      |
| 50°-60°   | 32.0   | 4.8       |
| 60°-70°   | 20.5   | 3.1       |
| 70°-80°   | 15.3   | 2.3       |
| 80°-90°   | 9.8    | 1.5       |
| 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°    | 370.3  | 55.4      |
| 0°-40°    | 512.0  | 76.6      |
| 0°-60°    | 623.0  | 93.2      |
| 0°-90°    | 668.6  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 668.6  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 620 | 620   | 620 | 620   | 620 |      |
| 5°  | 596 | 607   | 606 | 611   | 616 | 55   |
| 15° | 479 | 493   | 511 | 537   | 556 | 133  |
| 25° | 332 | 345   | 368 | 397   | 427 | 151  |
| 35° | 177 | 194   | 222 | 259   | 294 | 110  |
| 45° | 38  | 64    | 113 | 132   | 148 | 36   |
| 55° | 13  | 27    | 40  | 39    | 33  | 11   |
| 65° | 6   | 24    | 23  | 21    | 23  | 6    |
| 75° | 5   | 17    | 17  | 15    | 14  | 5    |
| 85° | 4   | 11    | 12  | 11    | 7   | 4    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 620.2 | 620.2 | 620.2 | 620.2 | 620.2 |
| 2.5°  | 611.9 | 621.4 | 616.7 | 616.7 | 617.9 |
| 5°    | 596.5 | 607.2 | 606.0 | 610.7 | 615.5 |
| 7.5°  | 571.5 | 583.4 | 589.4 | 600.0 | 608.4 |
| 10°   | 543.0 | 556.1 | 566.8 | 583.4 | 595.3 |
| 12.5° | 512.1 | 525.2 | 540.6 | 562.0 | 577.5 |
| 15°   | 478.9 | 493.1 | 510.9 | 537.1 | 556.1 |
| 17.5° | 442.0 | 457.5 | 477.7 | 506.2 | 526.4 |
| 20°   | 406.4 | 421.8 | 443.2 | 471.7 | 494.3 |
| 22.5° | 369.5 | 382.6 | 405.2 | 433.7 | 461.0 |
| 25°   | 331.5 | 344.6 | 368.3 | 396.9 | 426.6 |
| 27.5° | 293.5 | 306.6 | 330.3 | 360.0 | 393.3 |
| 30°   | 253.1 | 267.3 | 292.3 | 325.6 | 361.2 |
| 32.5° | 215.1 | 229.3 | 255.5 | 292.3 | 327.9 |
| 35°   | 177.0 | 193.7 | 222.2 | 259.0 | 293.5 |
| 37.5° | 140.2 | 159.2 | 191.3 | 225.8 | 256.7 |
| 40°   | 104.6 | 124.8 | 162.8 | 192.5 | 218.6 |
| 42.5° | 68.9  | 92.7  | 136.6 | 161.6 | 181.8 |
| 45°   | 38.0  | 64.2  | 112.9 | 131.9 | 148.5 |
| 47.5° | 21.4  | 41.6  | 89.1  | 104.6 | 114.1 |
| 50°   | 17.8  | 30.9  | 68.9  | 79.6  | 83.2  |
| 52.5° | 14.3  | 28.5  | 52.3  | 58.2  | 55.8  |
| 55°   | 13.1  | 27.3  | 40.4  | 39.2  | 33.3  |
| 57.5° | 10.7  | 27.3  | 32.1  | 28.5  | 28.5  |
| 60°   | 8.3   | 26.1  | 28.5  | 25.0  | 26.1  |
| 62.5° | 7.1   | 25.0  | 26.1  | 23.8  | 23.8  |
| 65°   | 5.9   | 23.8  | 22.6  | 21.4  | 22.6  |
| 67.5° | 4.8   | 21.4  | 21.4  | 20.2  | 20.2  |
| 70°   | 4.8   | 20.2  | 19.0  | 17.8  | 17.8  |
| 72.5° | 4.8   | 17.8  | 17.8  | 16.6  | 16.6  |
| 75°   | 4.8   | 16.6  | 16.6  | 15.4  | 14.3  |
| 77.5° | 4.8   | 14.3  | 15.4  | 14.3  | 13.1  |
| 80°   | 4.8   | 13.1  | 14.3  | 13.1  | 10.7  |
| 82.5° | 4.8   | 11.9  | 13.1  | 11.9  | 9.5   |
| 85°   | 3.6   | 10.7  | 11.9  | 10.7  | 7.1   |
| 87.5° | 3.6   | 10.7  | 11.9  | 9.5   | 5.9   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)