

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: P1057981

Luminaire Tested: S122RDR-S485D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1057981  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S485D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

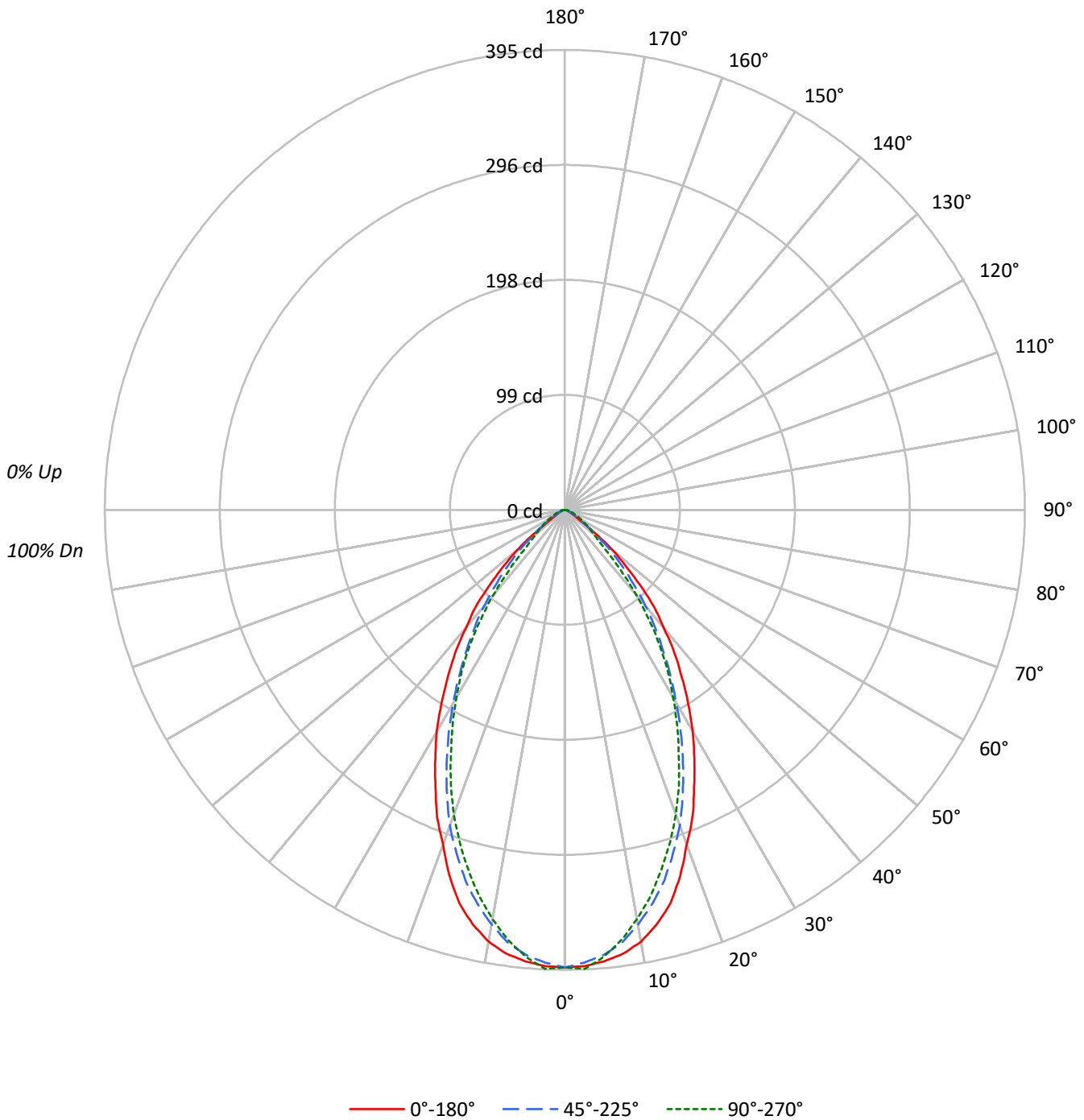
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 422.7 lumens  
Efficiency: N/A  
Efficacy: 21.6 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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

TEST NUMBER: P1057981

CATALOG NUMBER: S122RDR-S485D850-X4F0-XX-UDD-SVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1057981

CATALOG NUMBER: S122RDR-S485D850-X4F0-XX-UDD-SVL-B

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 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 | 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   | 113 | 110 | 107 | 104 | 110 | 107 | 105 | 103 | 103 | 101 | 99  | 100 | 98  | 96  | 96  | 95  | 94  | 92  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 106 | 101 | 96  | 92  | 104 | 99  | 95  | 91  | 96  | 92  | 89  | 93  | 90  | 87  | 90  | 87  | 85  | 84  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 100 | 93  | 87  | 82  | 98  | 91  | 86  | 82  | 88  | 84  | 80  | 86  | 82  | 79  | 84  | 80  | 78  | 76  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 78  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  | 70  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 88  | 79  | 72  | 68  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 65  | 64  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 83  | 73  | 67  | 62  | 82  | 72  | 66  | 62  | 71  | 65  | 61  | 69  | 64  | 61  | 68  | 64  | 60  | 59  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 79  | 68  | 62  | 57  | 77  | 68  | 61  | 57  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 54  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 74  | 64  | 57  | 53  | 73  | 63  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 50  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 70  | 60  | 53  | 49  | 69  | 59  | 53  | 49  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 52  | 48  | 47  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 67  | 56  | 50  | 45  | 66  | 56  | 49  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 44  |    |    |    |    |    |    |    |    |    |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7252 | 7252 | 7252 |
| 5°  | 7207 | 7105 | 7135 |
| 10° | 7056 | 6775 | 6687 |
| 15° | 6684 | 6295 | 6115 |
| 20° | 6007 | 5669 | 5469 |
| 25° | 5351 | 4888 | 4711 |
| 30° | 4681 | 4078 | 3961 |
| 35° | 3940 | 3305 | 3199 |
| 40° | 3175 | 2609 | 2305 |
| 45° | 2375 | 1884 | 1373 |
| 50° | 1487 | 1217 | 901  |
| 55° | 505  | 656  | 730  |
| 60° | 288  | 406  | 579  |
| 65° | 205  | 275  | 445  |
| 70° | 167  | 210  | 340  |
| 75° | 114  | 171  | 278  |
| 80° | 85   | 170  | 255  |
| 85° | 0    | 0    | 169  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2375 cd/sqm



TEST NUMBER: P1057981

CATALOG NUMBER: S122RDR-S485D850-X4F0-XX-UDD-SVL-B

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 36.2   | 8.6       |
| 10°-20°   | 92.7   | 21.9      |
| 20°-30°   | 111.7  | 26.4      |
| 30°-40°   | 95.4   | 22.6      |
| 40°-50°   | 55.9   | 13.2      |
| 50°-60°   | 20.2   | 4.8       |
| 60°-70°   | 7.2    | 1.7       |
| 70°-80°   | 2.9    | 0.7       |
| 80°-90°   | 0.5    | 0.1       |
| 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°    | 240.6  | 56.9      |
| 0°-40°    | 336.0  | 79.5      |
| 0°-60°    | 412.1  | 97.5      |
| 0°-90°    | 422.7  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 422.7  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 393 | 393   | 393 | 393   | 393 |      |
| 5°  | 389 | 390   | 384 | 385   | 385 | 37   |
| 15° | 350 | 344   | 330 | 323   | 320 | 97   |
| 25° | 263 | 252   | 240 | 236   | 231 | 121  |
| 35° | 175 | 162   | 147 | 145   | 142 | 109  |
| 45° | 91  | 82    | 72  | 60    | 53  | 70   |
| 55° | 16  | 22    | 20  | 21    | 23  | 19   |
| 65° | 5   | 6     | 6   | 9     | 10  | 5    |
| 75° | 2   | 2     | 2   | 3     | 4   | 2    |
| 85° | 0   | 0     | 0   | 1     | 1   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P1057981

CATALOG NUMBER: S122RDR-S485D850-X4F0-XX-UDD-SVL-B

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 393.0 | 393.0 | 393.0 | 393.0 | 393.0 |
| 2.5°  | 392.2 | 393.0 | 389.1 | 393.0 | 394.6 |
| 5°    | 389.1 | 389.9 | 383.6 | 385.2 | 385.2 |
| 7.5°  | 384.4 | 383.6 | 375.0 | 373.4 | 372.6 |
| 10°   | 376.6 | 374.2 | 361.6 | 359.3 | 356.9 |
| 12.5° | 364.8 | 360.1 | 346.7 | 342.8 | 339.7 |
| 15°   | 349.9 | 344.4 | 329.5 | 323.2 | 320.1 |
| 17.5° | 329.5 | 323.2 | 309.1 | 302.8 | 299.7 |
| 20°   | 305.9 | 299.7 | 288.7 | 281.6 | 278.5 |
| 22.5° | 286.3 | 276.1 | 264.4 | 259.7 | 255.7 |
| 25°   | 262.8 | 251.8 | 240.1 | 236.1 | 231.4 |
| 27.5° | 240.8 | 227.5 | 215.7 | 212.6 | 208.7 |
| 30°   | 219.7 | 205.5 | 191.4 | 191.4 | 185.9 |
| 32.5° | 196.9 | 183.6 | 168.7 | 167.9 | 164.7 |
| 35°   | 174.9 | 161.6 | 146.7 | 145.1 | 142.0 |
| 37.5° | 154.5 | 141.2 | 127.1 | 122.4 | 118.5 |
| 40°   | 131.8 | 120.0 | 108.3 | 100.4 | 95.7  |
| 42.5° | 113.7 | 100.4 | 88.6  | 79.2  | 73.0  |
| 45°   | 91.0  | 81.6  | 72.2  | 60.4  | 52.6  |
| 47.5° | 70.6  | 64.3  | 56.5  | 43.1  | 39.2  |
| 50°   | 51.8  | 48.6  | 42.4  | 32.2  | 31.4  |
| 52.5° | 32.9  | 34.5  | 30.6  | 25.1  | 27.5  |
| 55°   | 15.7  | 22.0  | 20.4  | 21.2  | 22.7  |
| 57.5° | 10.2  | 11.0  | 14.9  | 17.3  | 18.8  |
| 60°   | 7.8   | 7.8   | 11.0  | 14.1  | 15.7  |
| 62.5° | 6.3   | 6.3   | 8.6   | 11.8  | 12.6  |
| 65°   | 4.7   | 5.5   | 6.3   | 8.6   | 10.2  |
| 67.5° | 3.9   | 3.9   | 4.7   | 7.1   | 7.8   |
| 70°   | 3.1   | 3.1   | 3.9   | 5.5   | 6.3   |
| 72.5° | 2.4   | 2.4   | 3.1   | 4.7   | 4.7   |
| 75°   | 1.6   | 2.4   | 2.4   | 3.1   | 3.9   |
| 77.5° | 1.6   | 1.6   | 1.6   | 2.4   | 3.1   |
| 80°   | 0.8   | 0.8   | 1.6   | 1.6   | 2.4   |
| 82.5° | 0.8   | 0.8   | 0.8   | 0.8   | 1.6   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.8   | 0.8   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)