

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058527

Luminaire Tested: S122RDRP-H865D835-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058527  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H865D835-X4F0-XX-UDD-BVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

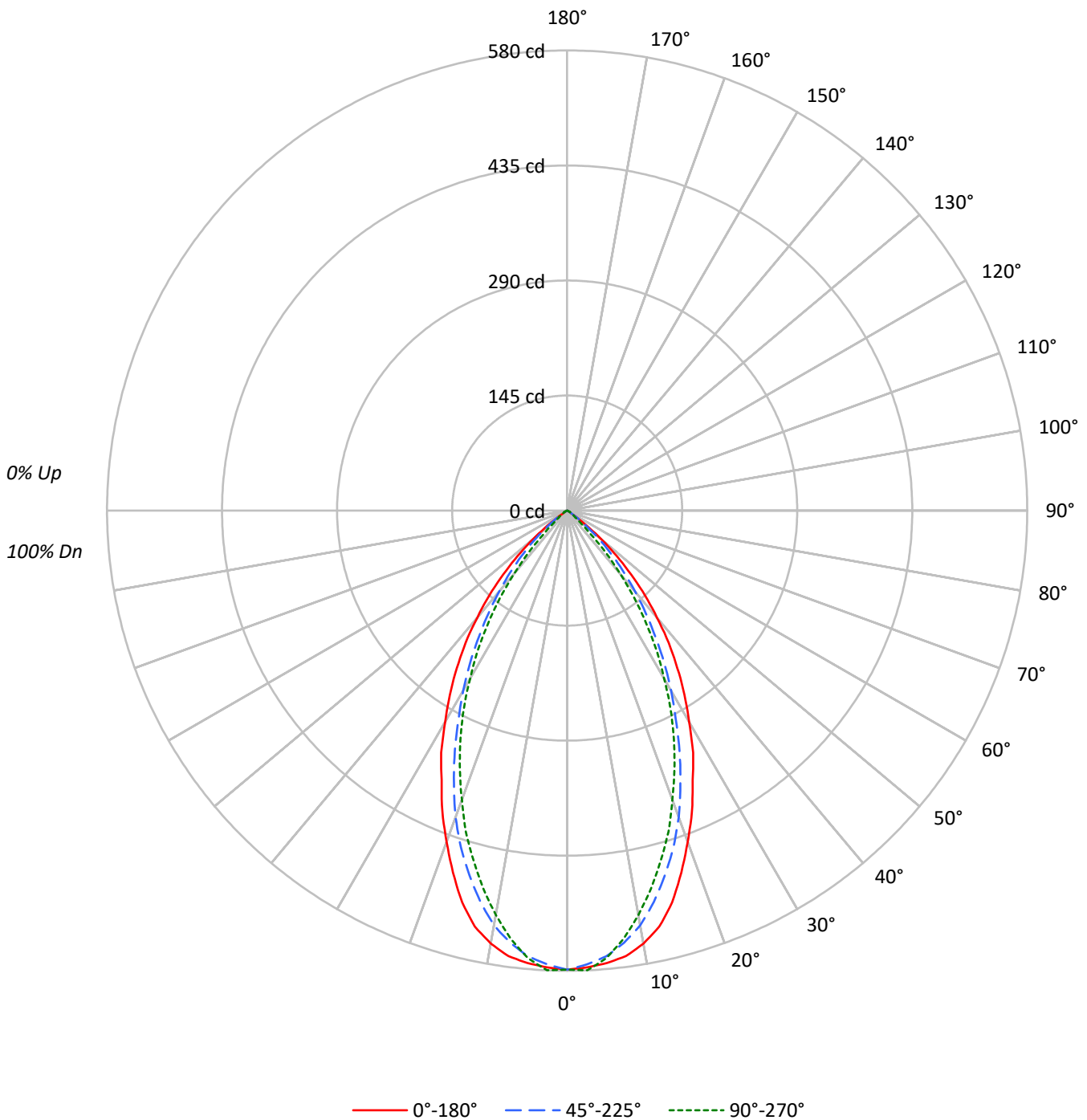
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 544.1 lumens  
Efficiency: N/A  
Efficacy: 17.4 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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 | 50 | 30 | 10  | 0 |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |     |   |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    | 100 |   |  |   |
| 1   | 113 | 110 | 108 | 105 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99  | 98  | 97  | 96  | 95  | 93  |    |    |    |    | 93  |   |  |   |
| 2   | 107 | 102 | 98  | 94  | 105 | 100 | 97  | 93  | 97  | 94  | 91  | 94  | 92  | 89  | 91  | 89  | 87  | 86  |    |    |    |    | 86  |   |  |   |
| 3   | 101 | 95  | 90  | 85  | 99  | 93  | 89  | 85  | 91  | 87  | 83  | 88  | 85  | 82  | 86  | 83  | 81  | 79  |    |    |    |    | 79  |   |  |   |
| 4   | 96  | 88  | 82  | 78  | 94  | 87  | 81  | 77  | 85  | 80  | 76  | 83  | 79  | 75  | 81  | 77  | 75  | 73  |    |    |    |    | 73  |   |  |   |
| 5   | 91  | 82  | 76  | 71  | 89  | 81  | 75  | 71  | 79  | 74  | 70  | 77  | 73  | 70  | 76  | 72  | 69  | 67  |    |    |    |    | 67  |   |  |   |
| 6   | 86  | 76  | 70  | 66  | 84  | 76  | 70  | 65  | 74  | 69  | 65  | 73  | 68  | 64  | 71  | 67  | 64  | 62  |    |    |    |    | 62  |   |  |   |
| 7   | 81  | 71  | 65  | 61  | 80  | 71  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  | 67  | 63  | 60  | 58  |    |    |    |    | 58  |   |  |   |
| 8   | 77  | 67  | 61  | 56  | 76  | 66  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 56  | 63  | 59  | 56  | 54  |    |    |    |    | 54  |   |  |   |
| 9   | 73  | 63  | 57  | 53  | 72  | 62  | 57  | 52  | 61  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 52  | 51  |    |    |    |    | 51  |   |  |   |
| 10  | 69  | 59  | 53  | 49  | 68  | 59  | 53  | 49  | 58  | 53  | 49  | 57  | 52  | 49  | 56  | 52  | 49  | 47  |    |    |    |    | 47  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10677 | 10677 | 10677 |
| 5°  | 10604 | 10447 | 10491 |
| 10° | 10384 | 9948  | 9696  |
| 15° | 9769  | 9091  | 8717  |
| 20° | 8721  | 8071  | 7615  |
| 25° | 7621  | 6825  | 6477  |
| 30° | 6543  | 5578  | 5214  |
| 35° | 5456  | 4354  | 3913  |
| 40° | 4244  | 3211  | 2505  |
| 45° | 2970  | 2140  | 1086  |
| 50° | 1616  | 1122  | 388   |
| 55° | 235   | 392   | 277   |
| 60° | 44    | 89    | 181   |
| 65° | 0     | 52    | 105   |
| 70° | 0     | 0     | 65    |
| 75° | 0     | 0     | 0     |
| 80° | 0     | 0     | 0     |
| 85° | 0     | 0     | 0     |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2970 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.1   | 9.8       |
| 10°-20°   | 134.0  | 24.6      |
| 20°-30°   | 156.2  | 28.7      |
| 30°-40°   | 125.2  | 23.0      |
| 40°-50°   | 62.2   | 11.4      |
| 50°-60°   | 12.3   | 2.3       |
| 60°-70°   | 1.1    | 0.2       |
| 70°-80°   | 0.1    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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°    | 343.3  | 63.1      |
| 0°-40°    | 468.5  | 86.1      |
| 0°-60°    | 542.9  | 99.8      |
| 0°-90°    | 544.1  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 544.1  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 579 | 579   | 579 | 579   | 579 |      |
| 5°  | 572 | 572   | 564 | 565   | 566 | 54   |
| 15° | 511 | 502   | 476 | 464   | 456 | 142  |
| 25° | 374 | 356   | 335 | 328   | 318 | 172  |
| 35° | 242 | 218   | 193 | 185   | 174 | 151  |
| 45° | 114 | 100   | 82  | 55    | 42  | 88   |
| 55° | 7   | 15    | 12  | 7     | 9   | 15   |
| 65° | 0   | 0     | 1   | 1     | 2   | 0    |
| 75° | 0   | 0     | 0   | 0     | 0   | 0    |
| 85° | 0   | 0     | 0   | 0     | 0   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   | 0    |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 578.6 | 578.6 | 578.6 | 578.6 | 578.6 |
| 2.5°  | 576.2 | 578.6 | 572.5 | 578.6 | 579.9 |
| 5°    | 572.5 | 572.5 | 564.0 | 565.2 | 566.4 |
| 7.5°  | 566.4 | 564.0 | 549.3 | 546.8 | 544.4 |
| 10°   | 554.2 | 549.3 | 530.9 | 521.1 | 517.5 |
| 12.5° | 537.1 | 529.7 | 505.2 | 494.2 | 488.1 |
| 15°   | 511.4 | 501.6 | 475.9 | 463.7 | 456.3 |
| 17.5° | 478.3 | 469.8 | 445.3 | 431.8 | 424.5 |
| 20°   | 444.1 | 431.8 | 411.0 | 397.6 | 387.8 |
| 22.5° | 411.0 | 395.1 | 373.1 | 363.3 | 353.6 |
| 25°   | 374.3 | 356.0 | 335.2 | 327.9 | 318.1 |
| 27.5° | 343.8 | 320.5 | 296.1 | 291.2 | 282.6 |
| 30°   | 307.1 | 285.0 | 261.8 | 254.5 | 244.7 |
| 32.5° | 275.3 | 250.8 | 227.5 | 219.0 | 210.4 |
| 35°   | 242.2 | 217.8 | 193.3 | 184.7 | 173.7 |
| 37.5° | 210.4 | 187.2 | 162.7 | 149.2 | 139.5 |
| 40°   | 176.2 | 156.6 | 133.3 | 116.2 | 104.0 |
| 42.5° | 145.6 | 128.5 | 106.4 | 84.4  | 72.2  |
| 45°   | 113.8 | 100.3 | 82.0  | 55.1  | 41.6  |
| 47.5° | 84.4  | 74.6  | 59.9  | 31.8  | 22.0  |
| 50°   | 56.3  | 52.6  | 39.1  | 15.9  | 13.5  |
| 52.5° | 30.6  | 33.0  | 23.2  | 9.8   | 11.0  |
| 55°   | 7.3   | 14.7  | 12.2  | 7.3   | 8.6   |
| 57.5° | 1.2   | 2.4   | 6.1   | 6.1   | 6.1   |
| 60°   | 1.2   | 1.2   | 2.4   | 3.7   | 4.9   |
| 62.5° | 1.2   | 0.0   | 1.2   | 2.4   | 3.7   |
| 65°   | 0.0   | 0.0   | 1.2   | 1.2   | 2.4   |
| 67.5° | 0.0   | 0.0   | 0.0   | 1.2   | 1.2   |
| 70°   | 0.0   | 0.0   | 0.0   | 1.2   | 1.2   |
| 72.5° | 0.0   | 0.0   | 0.0   | 0.0   | 1.2   |
| 75°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 77.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 80°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 82.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 85°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |      |      |      |      |                |      |      |      |      |
|-----------------|------|------------------|------|------|------|------|----------------|------|------|------|------|
| Ceiling         |      | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall            |      | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane |      | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions |      | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H            | Y=2H | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H              | 2H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H              | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H             | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |