

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



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: P1061911

Luminaire Tested: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061911  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

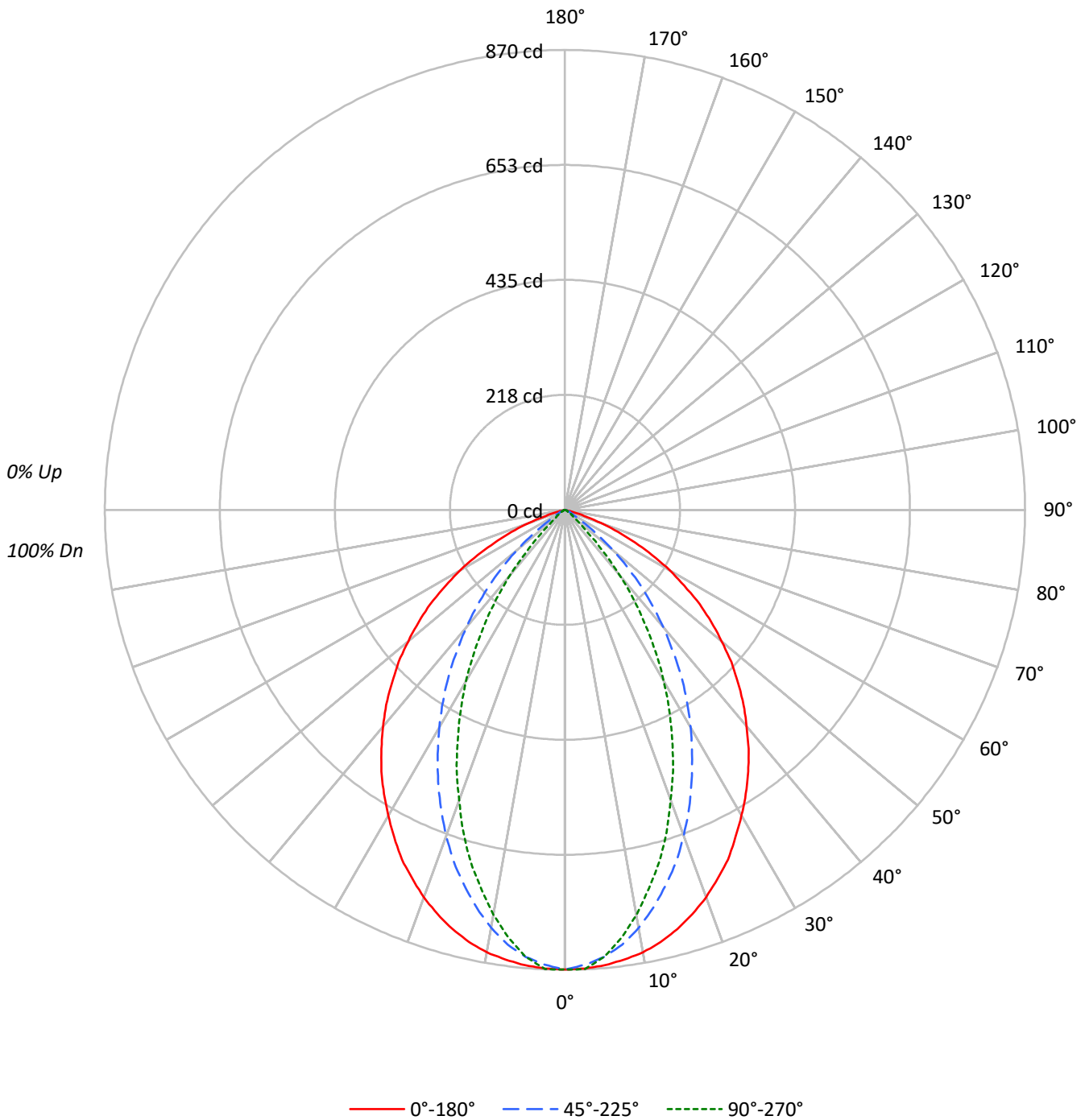
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1123.3 lumens  
Efficiency: N/A  
Efficacy: 36.0 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.81 / 0.97  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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: P1061911

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

### Luminous Intensity Polar Plot





TEST NUMBER: P1061911

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

**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 |    |    |    | 100 |
| 1   | 112 | 109 | 106 | 103 | 110 | 107 | 104 | 102 | 103 | 101 | 99  | 99  | 97  | 96  | 95  | 94  | 93  | 91  |    |    |    | 91  |
| 2   | 105 | 99  | 94  | 90  | 103 | 97  | 93  | 89  | 94  | 90  | 87  | 91  | 88  | 85  | 88  | 86  | 83  | 82  |    |    |    | 82  |
| 3   | 98  | 90  | 84  | 80  | 96  | 89  | 83  | 79  | 86  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |    | 73  |
| 4   | 92  | 83  | 76  | 71  | 90  | 82  | 75  | 70  | 79  | 74  | 70  | 77  | 72  | 69  | 75  | 71  | 68  | 66  |    |    |    | 66  |
| 5   | 86  | 76  | 69  | 64  | 84  | 75  | 68  | 63  | 73  | 67  | 63  | 71  | 66  | 62  | 70  | 65  | 62  | 60  |    |    |    | 60  |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 62  | 57  | 67  | 61  | 57  | 66  | 61  | 57  | 65  | 60  | 56  | 54  |    |    |    | 54  |
| 7   | 76  | 65  | 58  | 53  | 74  | 64  | 57  | 52  | 63  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  |    |    |    | 50  |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46  |    |    |    | 46  |
| 9   | 67  | 56  | 49  | 44  | 66  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 47  | 44  | 42  |    |    |    | 42  |
| 10  | 64  | 52  | 46  | 41  | 62  | 52  | 45  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 49  | 44  | 41  | 39  |    |    |    | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5987 | 5987 | 5987 |
| 5°  | 5978 | 5867 | 5867 |
| 10° | 5943 | 5614 | 5438 |
| 15° | 5854 | 5241 | 4914 |
| 20° | 5715 | 4808 | 4278 |
| 25° | 5543 | 4305 | 3643 |
| 30° | 5308 | 3776 | 2973 |
| 35° | 5081 | 3220 | 2227 |
| 40° | 4805 | 2598 | 1443 |
| 45° | 4502 | 1966 | 625  |
| 50° | 4141 | 1253 | 234  |
| 55° | 3732 | 551  | 166  |
| 60° | 3159 | 237  | 110  |
| 65° | 2392 | 150  | 55   |
| 70° | 1455 | 68   | 22   |
| 75° | 306  | 29   | 29   |
| 80° | 0    | 0    | 0    |
| 85° | 0    | 0    | 0    |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4502 cd/sqm



TEST NUMBER: P1061911

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 80.2   | 7.1       |
| 10°-20°   | 209.0  | 18.6      |
| 20°-30°   | 268.3  | 23.9      |
| 30°-40°   | 252.5  | 22.5      |
| 40°-50°   | 176.6  | 15.7      |
| 50°-60°   | 94.3   | 8.4       |
| 60°-70°   | 37.6   | 3.3       |
| 70°-80°   | 4.9    | 0.4       |
| 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°    | 557.4  | 49.6      |
| 0°-40°    | 809.9  | 72.1      |
| 0°-60°    | 1080.8 | 96.2      |
| 0°-90°    | 1123.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1123.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 870 | 870   | 870 | 870   | 870 |      |
| 5°  | 865 | 863   | 849 | 851   | 849 | 82   |
| 15° | 821 | 795   | 735 | 701   | 689 | 231  |
| 25° | 730 | 665   | 567 | 505   | 480 | 335  |
| 35° | 604 | 508   | 383 | 296   | 265 | 377  |
| 45° | 462 | 346   | 202 | 98    | 64  | 357  |
| 55° | 311 | 190   | 46  | 16    | 14  | 276  |
| 65° | 147 | 58    | 9   | 5     | 3   | 146  |
| 75° | 12  | 3     | 1   | 1     | 1   | 22   |
| 85° | 0   | 0     | 0   | 0     | 0   | 0    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



TEST NUMBER: P1061911

CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 869.5 | 869.5 | 869.5 | 869.5 | 869.5 |
| 2.5°  | 868.4 | 869.5 | 861.5 | 868.4 | 869.5 |
| 5°    | 864.9 | 862.6 | 848.9 | 851.2 | 848.9 |
| 7.5°  | 858.1 | 852.3 | 829.4 | 821.3 | 816.8 |
| 10°   | 850.0 | 837.4 | 803.0 | 785.8 | 777.8 |
| 12.5° | 837.4 | 819.0 | 770.9 | 744.5 | 733.0 |
| 15°   | 821.3 | 795.0 | 735.3 | 700.9 | 689.4 |
| 17.5° | 801.8 | 767.4 | 698.6 | 656.2 | 639.0 |
| 20°   | 780.0 | 734.2 | 656.2 | 605.7 | 583.9 |
| 22.5° | 754.8 | 702.0 | 612.6 | 556.4 | 534.6 |
| 25°   | 729.6 | 665.3 | 566.7 | 504.7 | 479.5 |
| 27.5° | 698.6 | 627.5 | 520.8 | 454.3 | 426.7 |
| 30°   | 667.6 | 589.6 | 474.9 | 402.6 | 374.0 |
| 32.5° | 636.7 | 549.5 | 429.0 | 348.7 | 320.0 |
| 35°   | 604.5 | 508.2 | 383.1 | 296.0 | 265.0 |
| 37.5° | 570.1 | 466.9 | 333.8 | 245.5 | 213.4 |
| 40°   | 534.6 | 426.7 | 289.1 | 196.2 | 160.6 |
| 42.5° | 500.1 | 386.6 | 244.3 | 148.0 | 109.0 |
| 45°   | 462.3 | 346.4 | 201.9 | 97.5  | 64.2  |
| 47.5° | 426.7 | 307.4 | 158.3 | 56.2  | 33.3  |
| 50°   | 386.6 | 267.3 | 117.0 | 29.8  | 21.8  |
| 52.5° | 348.7 | 228.3 | 78.0  | 19.5  | 17.2  |
| 55°   | 310.9 | 190.4 | 45.9  | 16.1  | 13.8  |
| 57.5° | 267.3 | 153.7 | 25.2  | 12.6  | 10.3  |
| 60°   | 229.4 | 120.4 | 17.2  | 9.2   | 8.0   |
| 62.5° | 185.8 | 88.3  | 12.6  | 6.9   | 5.7   |
| 65°   | 146.8 | 58.5  | 9.2   | 4.6   | 3.4   |
| 67.5° | 109.0 | 34.4  | 5.7   | 2.3   | 2.3   |
| 70°   | 72.3  | 18.4  | 3.4   | 1.1   | 1.1   |
| 72.5° | 37.9  | 8.0   | 2.3   | 1.1   | 1.1   |
| 75°   | 11.5  | 3.4   | 1.1   | 1.1   | 1.1   |
| 77.5° | 0.0   | 1.1   | 0.0   | 0.0   | 1.1   |
| 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   |



TEST NUMBER: P1061911  
 CATALOG NUMBER: S125RDR-H1090D950-X4F0-XX-UDD-BVL-B

**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 | 15.16            | 16.42 | 15.53 | 16.74 | 17.05 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 15.75            | 16.86 | 16.13 | 17.19 | 17.55 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 15.71            | 16.74 | 16.11 | 17.09 | 17.48 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 15.62            | 16.57 | 16.04 | 16.94 | 17.34 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 15.58            | 16.47 | 16.01 | 16.86 | 17.27 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 15.53            | 16.38 | 15.97 | 16.77 | 17.20 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H              | 2H   | 14.93            | 15.97 | 15.34 | 16.32 | 16.70 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 15.53            | 16.36 | 15.94 | 16.77 | 17.17 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 15.48            | 16.22 | 15.91 | 16.64 | 17.08 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 15.39            | 16.03 | 15.85 | 16.47 | 16.94 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 15.33            | 15.92 | 15.80 | 16.37 | 16.84 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 15.28            | 15.80 | 15.77 | 16.28 | 16.76 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H              | 4H   | 15.33            | 15.92 | 15.80 | 16.37 | 16.84 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 15.22            | 15.70 | 15.73 | 16.20 | 16.68 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 15.16            | 15.59 | 15.68 | 16.10 | 16.60 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 15.11            | 15.49 | 15.62 | 15.98 | 16.56 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H             | 4H   | 15.28            | 15.80 | 15.77 | 16.28 | 16.76 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 15.16            | 15.59 | 15.68 | 16.10 | 16.60 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 15.11            | 15.49 | 15.62 | 15.98 | 16.56 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |