

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: P1061462

Luminaire Tested: S125RDRP-S1090D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1061462  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-87)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D850-X4F0-XX-UDD-BVL-S  
Description: DEFINE 5 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

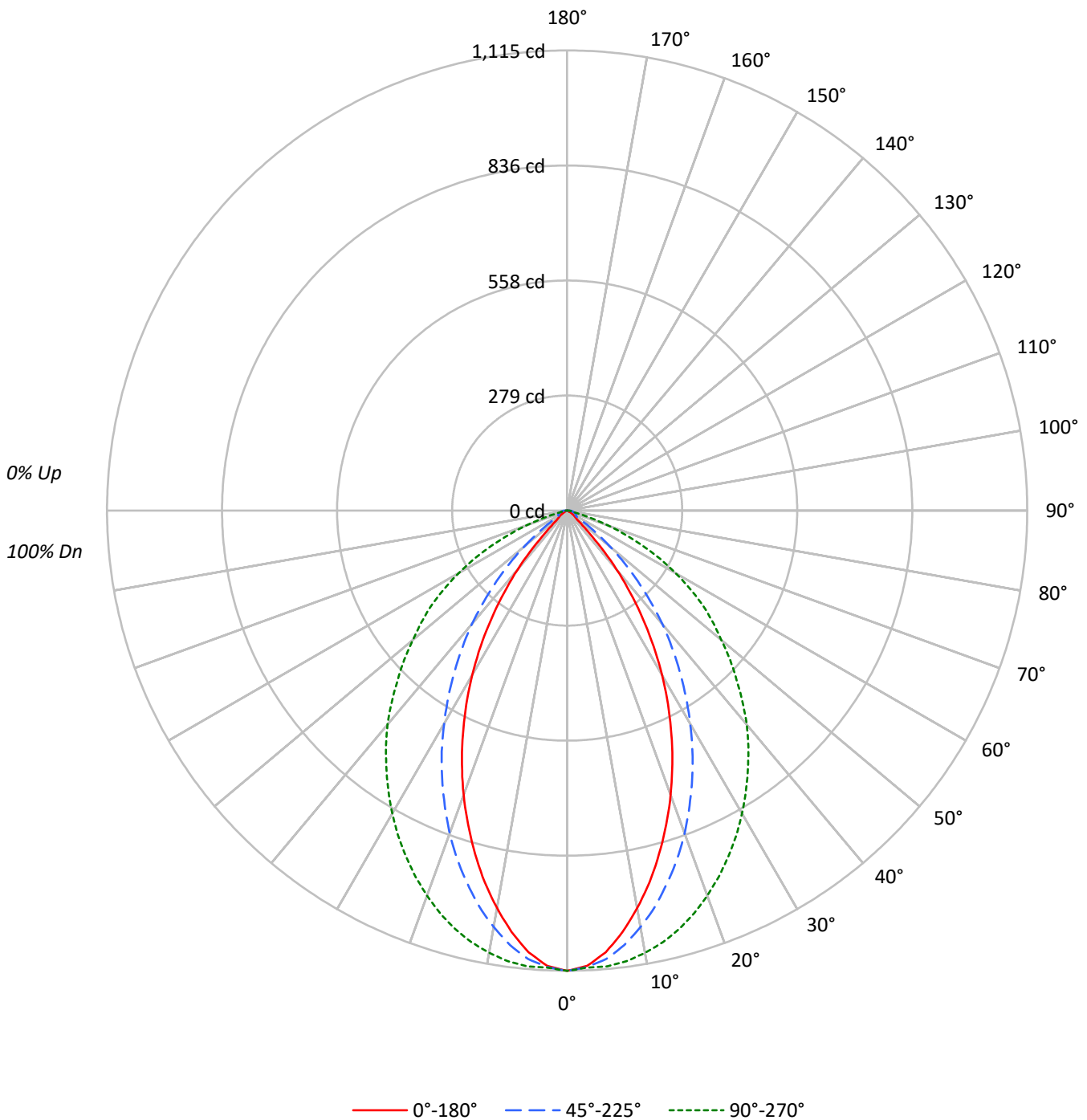
Lumens per Lamp: N/A  
Luminaire Lumens: 1434.4 lumens  
Efficiency: N/A  
Efficacy: 41.0 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 35  
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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |    | 90  |   |  |   |
| 2   | 105 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 85  | 82  | 81  |    |    |    |    | 81  |   |  |   |
| 3   | 98  | 90  | 83  | 78  | 95  | 88  | 82  | 78  | 85  | 80  | 76  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |    |    |    |    | 72  |   |  |   |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 65  |    |    |    |    | 65  |   |  |   |
| 5   | 85  | 75  | 68  | 63  | 84  | 74  | 67  | 62  | 72  | 66  | 62  | 70  | 65  | 61  | 69  | 64  | 61  | 59  |    |    |    |    | 59  |   |  |   |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 62  | 57  | 67  | 61  | 56  | 65  | 60  | 56  | 64  | 59  | 55  | 54  |    |    |    |    | 54  |   |  |   |
| 7   | 75  | 64  | 57  | 52  | 74  | 63  | 56  | 52  | 62  | 56  | 51  | 61  | 55  | 51  | 59  | 54  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 8   | 71  | 60  | 52  | 47  | 69  | 59  | 52  | 47  | 58  | 52  | 47  | 57  | 51  | 47  | 55  | 50  | 47  | 45  |    |    |    |    | 45  |   |  |   |
| 9   | 67  | 55  | 48  | 44  | 66  | 55  | 48  | 44  | 54  | 48  | 44  | 53  | 47  | 43  | 52  | 47  | 43  | 42  |    |    |    |    | 42  |   |  |   |
| 10  | 63  | 52  | 45  | 41  | 62  | 51  | 45  | 40  | 50  | 44  | 40  | 50  | 44  | 40  | 49  | 44  | 40  | 39  |    |    |    |    | 39  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7678 | 7678 | 7678 |
| 5°  | 7423 | 7537 | 7661 |
| 10° | 6837 | 7163 | 7605 |
| 15° | 6138 | 6667 | 7480 |
| 20° | 5374 | 6098 | 7276 |
| 25° | 4538 | 5446 | 7022 |
| 30° | 3658 | 4739 | 6737 |
| 35° | 2690 | 3994 | 6418 |
| 40° | 1679 | 3222 | 6086 |
| 45° | 629  | 2353 | 5657 |
| 50° | 295  | 1471 | 5223 |
| 55° | 215  | 610  | 4830 |
| 60° | 151  | 321  | 4179 |
| 65° | 90   | 380  | 3312 |
| 70° | 83   | 443  | 2102 |
| 75° | 109  | 439  | 657  |
| 80° | 163  | 543  | 492  |
| 85° | 324  | 869  | 648  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5657 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 102.3  | 7.1       |
| 10°-20°   | 264.7  | 18.5      |
| 20°-30°   | 337.3  | 23.5      |
| 30°-40°   | 313.9  | 21.9      |
| 40°-50°   | 215.1  | 15.0      |
| 50°-60°   | 118.4  | 8.3       |
| 60°-70°   | 56.1   | 3.9       |
| 70°-80°   | 17.6   | 1.2       |
| 80°-90°   | 9.0    | 0.6       |
| 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°    | 704.3  | 49.1      |
| 0°-40°    | 1018.2 | 71.0      |
| 0°-60°    | 1351.7 | 94.2      |
| 0°-90°    | 1434.4 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1434.4 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1115 | 1115  | 1115 | 1115  | 1115 |      |
| 5°  | 1074 | 1088  | 1090 | 1099  | 1108 | 99   |
| 15° | 861  | 889   | 935  | 1005  | 1049 | 240  |
| 25° | 597  | 634   | 717  | 832   | 924  | 273  |
| 35° | 320  | 365   | 475  | 632   | 764  | 198  |
| 45° | 65   | 108   | 242  | 428   | 581  | 62   |
| 55° | 18   | 21    | 51   | 239   | 402  | 16   |
| 65° | 6    | 7     | 23   | 88    | 203  | 6    |
| 75° | 4    | 7     | 16   | 18    | 25   | 4    |
| 85° | 4    | 10    | 11   | 10    | 8    | 4    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1115.2 | 1115.2 | 1115.2 | 1115.2 | 1115.2 |
| 2.5°  | 1104.2 | 1115.2 | 1107.0 | 1107.0 | 1108.4 |
| 5°    | 1074.0 | 1087.8 | 1090.5 | 1098.7 | 1108.4 |
| 7.5°  | 1030.1 | 1047.9 | 1061.7 | 1085.0 | 1101.5 |
| 10°   | 977.9  | 999.9  | 1024.6 | 1063.0 | 1087.8 |
| 12.5° | 922.9  | 946.3  | 983.4  | 1036.9 | 1071.3 |
| 15°   | 861.1  | 888.6  | 935.3  | 1005.4 | 1049.3 |
| 17.5° | 798.0  | 828.2  | 885.9  | 968.3  | 1023.2 |
| 20°   | 733.4  | 765.0  | 832.3  | 924.3  | 993.0  |
| 22.5° | 666.1  | 700.5  | 774.6  | 879.0  | 960.0  |
| 25°   | 597.4  | 634.5  | 716.9  | 832.3  | 924.3  |
| 27.5° | 528.8  | 567.2  | 657.9  | 784.2  | 887.2  |
| 30°   | 460.1  | 499.9  | 596.1  | 734.8  | 847.4  |
| 32.5° | 390.1  | 434.0  | 535.6  | 685.3  | 806.2  |
| 35°   | 320.0  | 365.3  | 475.2  | 631.8  | 763.6  |
| 37.5° | 251.3  | 298.0  | 416.1  | 581.0  | 721.1  |
| 40°   | 186.8  | 233.5  | 358.5  | 530.1  | 677.1  |
| 42.5° | 120.9  | 170.3  | 298.0  | 478.0  | 629.0  |
| 45°   | 64.6   | 108.5  | 241.7  | 428.5  | 581.0  |
| 47.5° | 34.3   | 57.7   | 188.2  | 379.1  | 535.6  |
| 50°   | 27.5   | 31.6   | 137.3  | 329.6  | 487.6  |
| 52.5° | 22.0   | 24.7   | 87.9   | 278.8  | 445.0  |
| 55°   | 17.9   | 20.6   | 50.8   | 239.0  | 402.4  |
| 57.5° | 13.7   | 16.5   | 28.8   | 199.1  | 353.0  |
| 60°   | 11.0   | 12.4   | 23.3   | 159.3  | 303.5  |
| 62.5° | 6.9    | 9.6    | 23.3   | 123.6  | 254.1  |
| 65°   | 5.5    | 6.9    | 23.3   | 87.9   | 203.3  |
| 67.5° | 5.5    | 5.5    | 23.3   | 57.7   | 152.5  |
| 70°   | 4.1    | 4.1    | 22.0   | 37.1   | 104.4  |
| 72.5° | 4.1    | 4.1    | 19.2   | 24.7   | 60.4   |
| 75°   | 4.1    | 6.9    | 16.5   | 17.9   | 24.7   |
| 77.5° | 4.1    | 11.0   | 15.1   | 15.1   | 13.7   |
| 80°   | 4.1    | 11.0   | 13.7   | 12.4   | 12.4   |
| 82.5° | 4.1    | 11.0   | 11.0   | 11.0   | 9.6    |
| 85°   | 4.1    | 9.6    | 11.0   | 9.6    | 8.2    |
| 87.5° | 4.1    | 9.6    | 9.6    | 9.6    | 5.5    |
| 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 | 16.13          | 17.41 | 16.49 | 17.72 | 18.04 |
|                 | 3H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.00 | 16.91          | 18.05 | 17.29 | 18.38 | 18.75 |
|                 | 4H   | 0.00             | 0.00 | 0.00 | 0.00 | 0.38 | 16.94          | 18.00 | 17.34 | 18.35 | 18.73 |
|                 | 6H   | 0.00             | 0.78 | 0.23 | 1.16 | 1.55 | 16.90          | 17.87 | 17.31 | 18.24 | 18.63 |
|                 | 8H   | 0.49             | 1.41 | 0.92 | 1.80 | 2.20 | 16.87          | 17.79 | 17.30 | 18.18 | 18.59 |
|                 | 12H  | 1.23             | 2.11 | 1.66 | 2.49 | 2.92 | 16.85          | 17.73 | 17.29 | 18.12 | 18.55 |
| 4H              | 2H   | 0.00             | 0.96 | 0.31 | 1.31 | 1.70 | 15.91          | 16.97 | 16.31 | 17.32 | 17.70 |
|                 | 3H   | 0.77             | 1.64 | 1.19 | 2.04 | 2.45 | 16.74          | 17.60 | 17.15 | 18.01 | 18.41 |
|                 | 4H   | 1.38             | 2.15 | 1.81 | 2.57 | 3.01 | 16.77          | 17.54 | 17.21 | 17.96 | 18.41 |
|                 | 6H   | 2.87             | 3.54 | 3.34 | 3.98 | 4.45 | 16.76          | 17.42 | 17.22 | 17.87 | 18.34 |
|                 | 8H   | 3.61             | 4.23 | 4.08 | 4.68 | 5.15 | 16.74          | 17.36 | 17.21 | 17.81 | 18.28 |
|                 | 12H  | 4.35             | 4.90 | 4.84 | 5.38 | 5.86 | 16.75          | 17.29 | 17.23 | 17.78 | 18.25 |
| 8H              | 4H   | 3.42             | 4.04 | 3.89 | 4.49 | 4.96 | 16.66          | 17.28 | 17.13 | 17.73 | 18.20 |
|                 | 6H   | 5.16             | 5.67 | 5.67 | 6.17 | 6.65 | 16.66          | 17.17 | 17.16 | 17.66 | 18.14 |
|                 | 8H   | 6.12             | 6.57 | 6.64 | 7.09 | 7.58 | 16.67          | 17.12 | 17.19 | 17.64 | 18.13 |
|                 | 12H  | 7.05             | 7.45 | 7.56 | 7.94 | 8.52 | 16.71          | 17.11 | 17.23 | 17.61 | 18.18 |
| 12H             | 4H   | 3.72             | 4.27 | 4.21 | 4.75 | 5.22 | 16.62          | 17.16 | 17.10 | 17.65 | 18.12 |
|                 | 6H   | 5.62             | 6.08 | 6.14 | 6.59 | 7.08 | 16.61          | 17.07 | 17.14 | 17.59 | 18.08 |
|                 | 8H   | 6.75             | 7.16 | 7.27 | 7.65 | 8.22 | 16.65          | 17.06 | 17.17 | 17.55 | 18.12 |