

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: P1058504

Luminaire Tested: S122RDRP-H675D940-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058504  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H675D940-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

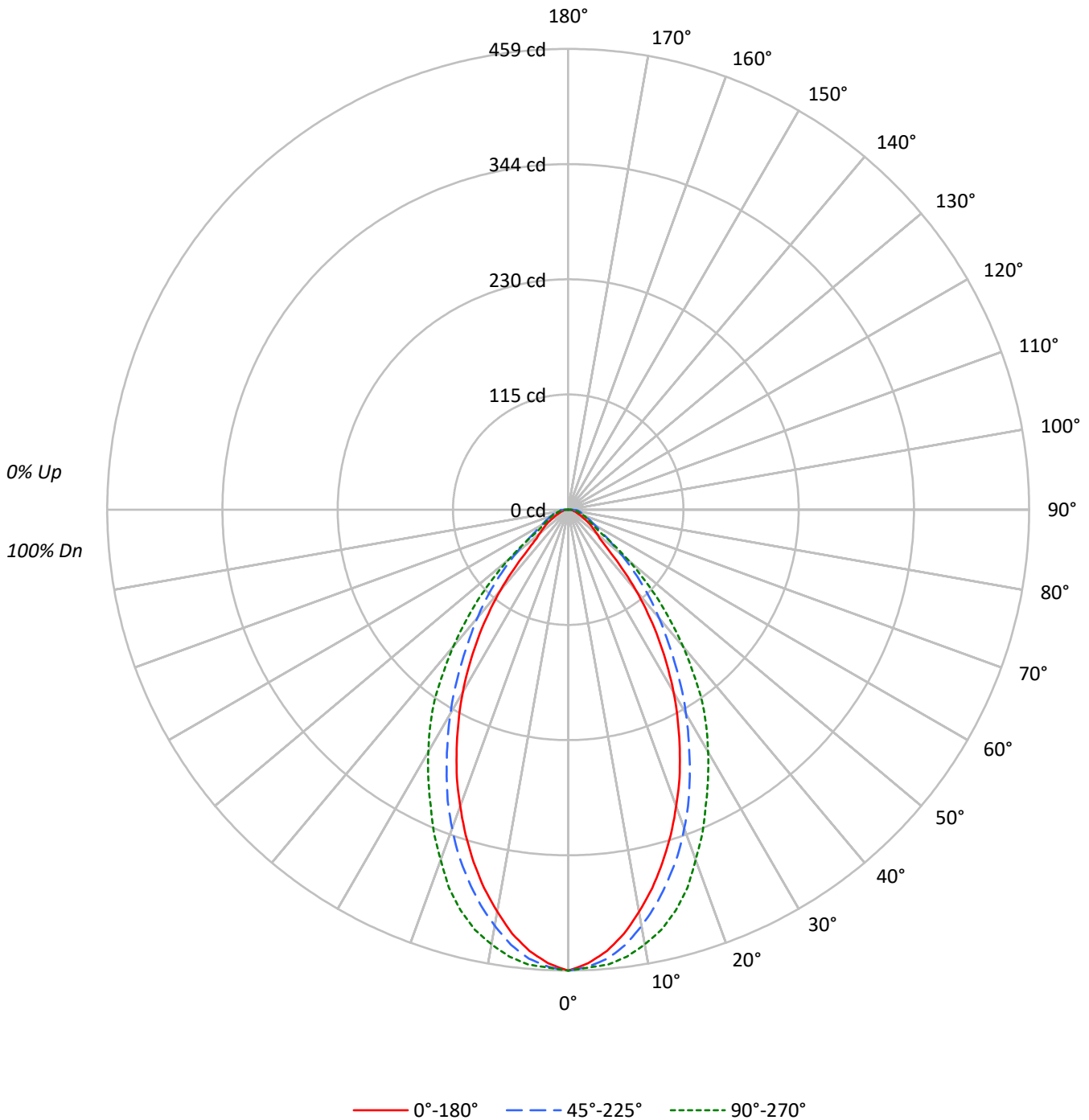
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 553.8 lumens  
Efficiency: N/A  
Efficacy: 23.6 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 111 | 108 | 105 | 102 | 109 | 106 | 103 | 100 | 101 | 99  | 97  | 98  | 96  | 94  | 94  | 93  | 91  | 89  |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 90  | 86  | 83  | 87  | 84  | 82  | 80  |
| 3   | 97  | 89  | 83  | 78  | 95  | 88  | 82  | 77  | 85  | 80  | 76  | 82  | 78  | 75  | 80  | 77  | 74  | 72  |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 68  | 74  | 70  | 67  | 65  |
| 5   | 86  | 75  | 68  | 63  | 84  | 74  | 68  | 63  | 72  | 66  | 62  | 71  | 65  | 61  | 69  | 64  | 61  | 59  |
| 6   | 80  | 70  | 62  | 57  | 79  | 69  | 62  | 57  | 67  | 61  | 57  | 66  | 60  | 56  | 64  | 59  | 56  | 54  |
| 7   | 76  | 65  | 57  | 52  | 74  | 64  | 57  | 52  | 62  | 56  | 52  | 61  | 56  | 52  | 60  | 55  | 51  | 50  |
| 8   | 71  | 60  | 53  | 48  | 70  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 56  | 51  | 47  | 46  |
| 9   | 67  | 56  | 49  | 45  | 66  | 56  | 49  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 42  |
| 10  | 64  | 53  | 46  | 41  | 63  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 50  | 45  | 41  | 39  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8472 | 8472 | 8472 |
| 5°  | 8174 | 8315 | 8424 |
| 10° | 7617 | 7886 | 8237 |
| 15° | 6942 | 7313 | 7895 |
| 20° | 6170 | 6635 | 7285 |
| 25° | 5347 | 5829 | 6605 |
| 30° | 4474 | 4999 | 5938 |
| 35° | 3530 | 4140 | 5228 |
| 40° | 2529 | 3387 | 4285 |
| 45° | 1480 | 2675 | 3314 |
| 50° | 1071 | 1946 | 2236 |
| 55° | 901  | 1390 | 1171 |
| 60° | 720  | 1126 | 1000 |
| 65° | 594  | 1000 | 926  |
| 70° | 502  | 960  | 869  |
| 75° | 485  | 1027 | 848  |
| 80° | 542  | 1265 | 903  |
| 85° | 889  | 1969 | 1249 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3314 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 42.1   | 7.6       |
| 10°-20°   | 107.8  | 19.5      |
| 20°-30°   | 132.4  | 23.9      |
| 30°-40°   | 117.1  | 21.1      |
| 40°-50°   | 74.7   | 13.5      |
| 50°-60°   | 36.5   | 6.6       |
| 60°-70°   | 21.7   | 3.9       |
| 70°-80°   | 13.9   | 2.5       |
| 80°-90°   | 7.6    | 1.4       |
| 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°    | 282.3  | 51.0      |
| 0°-40°    | 399.4  | 72.1      |
| 0°-60°    | 510.6  | 92.2      |
| 0°-90°    | 553.8  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 553.8  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 459 | 459   | 459 | 459   | 459 |      |
| 5°  | 441 | 451   | 449 | 451   | 455 | 41   |
| 15° | 363 | 374   | 383 | 400   | 413 | 101  |
| 25° | 263 | 272   | 286 | 304   | 324 | 120  |
| 35° | 157 | 165   | 184 | 209   | 232 | 97   |
| 45° | 57  | 73    | 102 | 115   | 127 | 48   |
| 55° | 28  | 37    | 43  | 41    | 36  | 25   |
| 65° | 14  | 25    | 23  | 21    | 21  | 14   |
| 75° | 7   | 15    | 14  | 13    | 12  | 7    |
| 85° | 4   | 8     | 9   | 8     | 6   | 4    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 459.1 | 459.1 | 459.1 | 459.1 | 459.1 |
| 2.5°  | 452.3 | 460.8 | 455.7 | 455.7 | 456.5 |
| 5°    | 441.3 | 450.6 | 448.9 | 450.6 | 454.8 |
| 7.5°  | 426.0 | 435.3 | 437.0 | 443.8 | 448.9 |
| 10°   | 406.5 | 415.9 | 420.9 | 432.0 | 439.6 |
| 12.5° | 386.2 | 395.5 | 403.2 | 417.6 | 428.6 |
| 15°   | 363.4 | 373.5 | 382.8 | 399.8 | 413.3 |
| 17.5° | 339.6 | 349.8 | 361.7 | 378.6 | 394.7 |
| 20°   | 314.2 | 323.5 | 337.9 | 354.0 | 371.0 |
| 22.5° | 289.7 | 298.1 | 313.4 | 328.6 | 349.0 |
| 25°   | 262.6 | 271.9 | 286.3 | 304.1 | 324.4 |
| 27.5° | 236.3 | 245.6 | 260.0 | 280.3 | 301.5 |
| 30°   | 210.0 | 218.5 | 234.6 | 255.8 | 278.7 |
| 32.5° | 182.9 | 191.4 | 209.2 | 232.1 | 255.8 |
| 35°   | 156.7 | 165.2 | 183.8 | 209.2 | 232.1 |
| 37.5° | 130.4 | 139.8 | 160.9 | 184.6 | 204.1 |
| 40°   | 105.0 | 116.0 | 140.6 | 160.9 | 177.9 |
| 42.5° | 79.6  | 94.9  | 121.1 | 138.1 | 151.6 |
| 45°   | 56.7  | 72.8  | 102.5 | 115.2 | 127.0 |
| 47.5° | 43.2  | 55.9  | 84.7  | 94.0  | 101.6 |
| 50°   | 37.3  | 45.7  | 67.8  | 74.5  | 77.9  |
| 52.5° | 32.2  | 40.7  | 54.2  | 56.7  | 55.1  |
| 55°   | 28.0  | 37.3  | 43.2  | 40.7  | 36.4  |
| 57.5° | 23.7  | 34.7  | 35.6  | 30.5  | 31.3  |
| 60°   | 19.5  | 31.3  | 30.5  | 26.3  | 27.1  |
| 62.5° | 16.1  | 28.8  | 26.3  | 23.7  | 23.7  |
| 65°   | 13.6  | 25.4  | 22.9  | 21.2  | 21.2  |
| 67.5° | 11.0  | 22.9  | 20.3  | 18.6  | 18.6  |
| 70°   | 9.3   | 20.3  | 17.8  | 16.1  | 16.1  |
| 72.5° | 8.5   | 17.8  | 16.1  | 14.4  | 14.4  |
| 75°   | 6.8   | 15.2  | 14.4  | 12.7  | 11.9  |
| 77.5° | 5.9   | 12.7  | 12.7  | 11.9  | 10.2  |
| 80°   | 5.1   | 11.0  | 11.9  | 10.2  | 8.5   |
| 82.5° | 5.1   | 10.2  | 10.2  | 9.3   | 6.8   |
| 85°   | 4.2   | 8.5   | 9.3   | 8.5   | 5.9   |
| 87.5° | 2.5   | 7.6   | 7.6   | 6.8   | 4.2   |
| 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 | 9.45             | 10.73 | 9.81  | 11.04 | 11.35 | 8.98           | 10.26 | 9.34  | 10.57 | 10.88 |
|                 | 3H   | 10.62            | 11.76 | 11.00 | 12.09 | 12.46 | 10.54          | 11.68 | 10.92 | 12.01 | 12.37 |
|                 | 4H   | 11.05            | 12.12 | 11.46 | 12.47 | 12.85 | 11.22          | 12.28 | 11.63 | 12.64 | 13.02 |
|                 | 6H   | 11.40            | 12.38 | 11.81 | 12.75 | 13.14 | 11.88          | 12.85 | 12.29 | 13.22 | 13.62 |
|                 | 8H   | 11.60            | 12.52 | 12.03 | 12.91 | 13.32 | 12.16          | 13.09 | 12.60 | 13.48 | 13.89 |
|                 | 12H  | 11.81            | 12.70 | 12.25 | 13.08 | 13.51 | 12.48          | 13.37 | 12.91 | 13.75 | 14.18 |
| 4H              | 2H   | 9.95             | 11.01 | 10.35 | 11.36 | 11.75 | 9.58           | 10.64 | 9.98  | 10.99 | 11.38 |
|                 | 3H   | 11.60            | 12.47 | 12.01 | 12.88 | 13.28 | 11.38          | 12.25 | 11.79 | 12.66 | 13.06 |
|                 | 4H   | 12.36            | 13.14 | 12.79 | 13.56 | 14.01 | 12.22          | 13.00 | 12.65 | 13.42 | 13.87 |
|                 | 6H   | 12.96            | 13.64 | 13.42 | 14.09 | 14.55 | 13.08          | 13.76 | 13.54 | 14.21 | 14.67 |
|                 | 8H   | 13.26            | 13.90 | 13.73 | 14.35 | 14.82 | 13.47          | 14.11 | 13.94 | 14.55 | 15.03 |
|                 | 12H  | 13.58            | 14.14 | 14.06 | 14.62 | 15.10 | 13.91          | 14.47 | 14.39 | 14.95 | 15.43 |
| 8H              | 4H   | 12.78            | 13.41 | 13.25 | 13.86 | 14.33 | 12.68          | 13.31 | 13.15 | 13.76 | 14.23 |
|                 | 6H   | 13.73            | 14.25 | 14.23 | 14.75 | 15.23 | 13.79          | 14.31 | 14.29 | 14.81 | 15.29 |
|                 | 8H   | 14.28            | 14.75 | 14.80 | 15.26 | 15.75 | 14.37          | 14.84 | 14.89 | 15.36 | 15.85 |
|                 | 12H  | 14.84            | 15.26 | 15.36 | 15.75 | 16.33 | 15.04          | 15.45 | 15.55 | 15.95 | 16.52 |
| 12H             | 4H   | 12.85            | 13.41 | 13.34 | 13.90 | 14.37 | 12.76          | 13.32 | 13.25 | 13.81 | 14.28 |
|                 | 6H   | 13.91            | 14.38 | 14.43 | 14.90 | 15.39 | 13.98          | 14.45 | 14.50 | 14.96 | 15.45 |
|                 | 8H   | 14.61            | 15.02 | 15.12 | 15.52 | 16.09 | 14.69          | 15.10 | 15.20 | 15.60 | 16.17 |