

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: P1056486

Luminaire Tested: S125R3DRP-S850D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056486  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DRP-S850D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

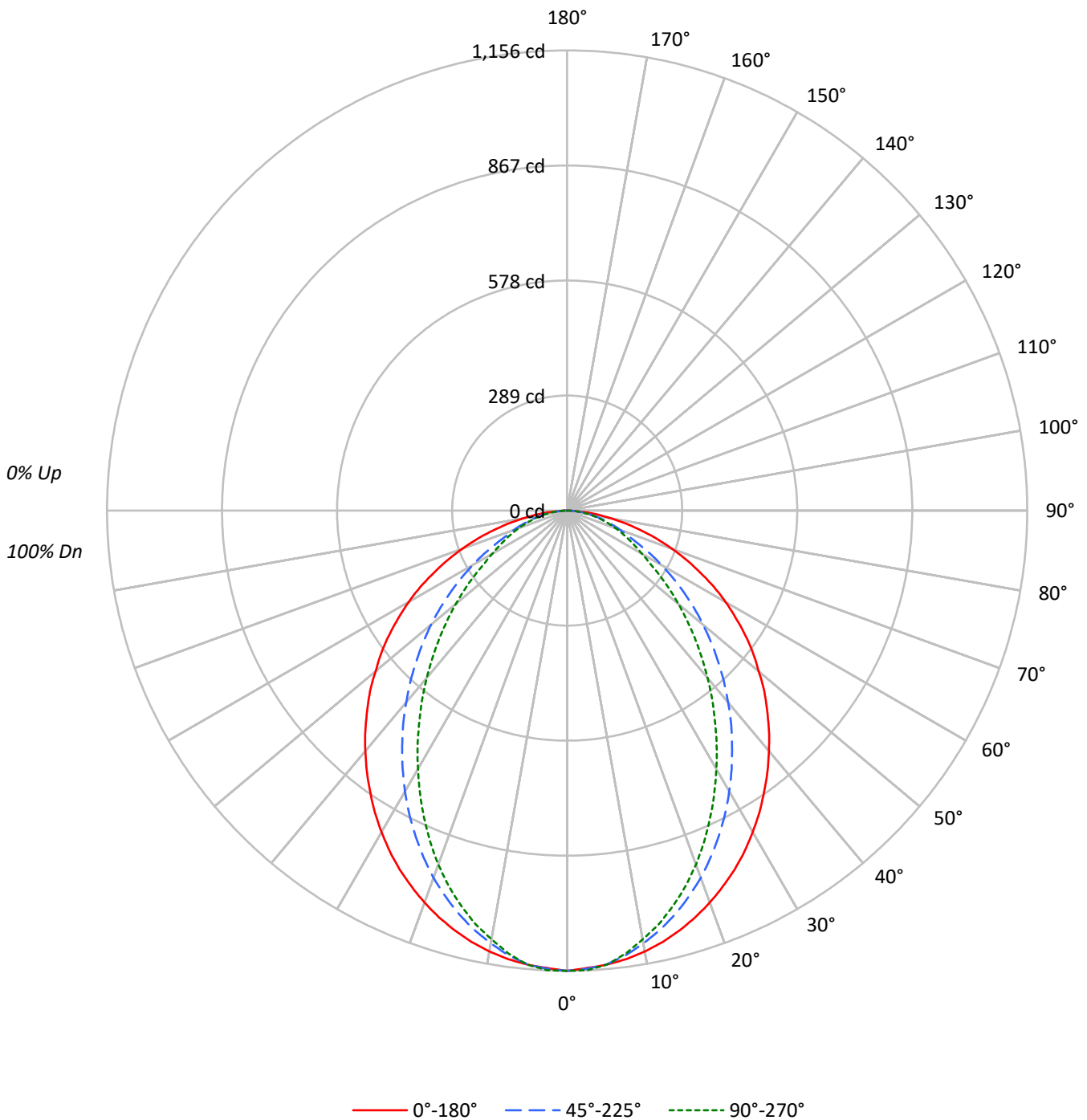
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2450.8 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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   | 110 | 105 | 101 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 90  | 88  | 86  |
| 2   | 101 | 93  | 87  | 81  | 98  | 91  | 85  | 80  | 88  | 83  | 79  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |
| 3   | 92  | 83  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |
| 4   | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 55  |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 63  | 56  | 51  | 62  | 55  | 51  | 60  | 54  | 50  | 48  |
| 6   | 73  | 60  | 52  | 46  | 71  | 59  | 51  | 46  | 58  | 51  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 46  | 41  | 53  | 46  | 41  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |
| 8   | 63  | 51  | 42  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 47  | 41  | 36  | 46  | 40  | 36  | 34  |
| 9   | 59  | 47  | 39  | 33  | 58  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8174 | 8174 | 8174 |
| 5°  | 8126 | 8120 | 8126 |
| 10° | 8072 | 7924 | 7850 |
| 15° | 7990 | 7682 | 7524 |
| 20° | 7883 | 7384 | 7118 |
| 25° | 7763 | 7032 | 6636 |
| 30° | 7612 | 6649 | 6121 |
| 35° | 7445 | 6234 | 5588 |
| 40° | 7278 | 5808 | 5062 |
| 45° | 7101 | 5363 | 4536 |
| 50° | 6912 | 4905 | 4015 |
| 55° | 6738 | 4404 | 3492 |
| 60° | 6501 | 3871 | 3068 |
| 65° | 6179 | 3284 | 2852 |
| 70° | 5802 | 2937 | 2668 |
| 75° | 5244 | 2704 | 2516 |
| 80° | 4556 | 2455 | 2349 |
| 85° | 3561 | 2166 | 2166 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7101 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 108.2  | 4.4       |
| 10°-20°   | 297.1  | 12.1      |
| 20°-30°   | 419.6  | 17.1      |
| 30°-40°   | 462.0  | 18.8      |
| 40°-50°   | 430.9  | 17.6      |
| 50°-60°   | 344.0  | 14.0      |
| 60°-70°   | 231.5  | 9.4       |
| 70°-80°   | 123.3  | 5.0       |
| 80°-90°   | 34.3   | 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°    | 824.9  | 33.7      |
| 0°-40°    | 1286.8 | 52.5      |
| 0°-60°    | 2061.7 | 84.1      |
| 0°-90°    | 2450.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2450.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1156 | 1156  | 1156 | 1156  | 1156 |      |
| 5°  | 1145 | 1155  | 1144 | 1141  | 1145 | 109  |
| 15° | 1092 | 1086  | 1050 | 1032  | 1028 | 308  |
| 25° | 995  | 965   | 902  | 862   | 851  | 458  |
| 35° | 863  | 812   | 722  | 666   | 648  | 540  |
| 45° | 710  | 643   | 536  | 471   | 454  | 548  |
| 55° | 547  | 464   | 357  | 300   | 283  | 488  |
| 65° | 369  | 288   | 196  | 174   | 170  | 366  |
| 75° | 192  | 127   | 99   | 93    | 92   | 205  |
| 85° | 44   | 30    | 27   | 28    | 27   | 52   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1156.3 | 1156.3 | 1156.3 | 1156.3 | 1156.3 |
| 2.5°  | 1150.3 | 1159.8 | 1152.0 | 1153.7 | 1155.5 |
| 5°    | 1145.1 | 1154.6 | 1144.3 | 1140.8 | 1145.1 |
| 7.5°  | 1136.5 | 1144.3 | 1127.0 | 1119.3 | 1122.7 |
| 10°   | 1124.5 | 1129.6 | 1103.8 | 1093.5 | 1093.5 |
| 12.5° | 1109.8 | 1109.8 | 1078.8 | 1064.2 | 1064.2 |
| 15°   | 1091.7 | 1085.7 | 1049.6 | 1031.5 | 1028.0 |
| 17.5° | 1071.1 | 1059.9 | 1016.8 | 993.6  | 989.3  |
| 20°   | 1047.8 | 1029.8 | 981.5  | 951.4  | 946.2  |
| 22.5° | 1022.0 | 998.8  | 942.8  | 905.8  | 899.7  |
| 25°   | 995.3  | 965.2  | 901.5  | 861.9  | 850.7  |
| 27.5° | 965.2  | 929.0  | 859.3  | 814.5  | 800.7  |
| 30°   | 932.5  | 891.1  | 814.5  | 764.6  | 749.9  |
| 32.5° | 898.9  | 852.4  | 768.9  | 715.5  | 699.1  |
| 35°   | 862.7  | 811.9  | 722.4  | 665.6  | 647.5  |
| 37.5° | 826.6  | 771.5  | 676.7  | 617.3  | 598.4  |
| 40°   | 788.7  | 728.4  | 629.4  | 568.3  | 548.5  |
| 42.5° | 750.8  | 686.2  | 582.9  | 520.9  | 500.2  |
| 45°   | 710.3  | 643.2  | 536.4  | 471.0  | 453.7  |
| 47.5° | 671.6  | 599.3  | 490.8  | 427.1  | 408.1  |
| 50°   | 628.5  | 553.6  | 446.0  | 382.3  | 365.1  |
| 52.5° | 588.9  | 508.8  | 401.2  | 341.8  | 323.7  |
| 55°   | 546.7  | 464.1  | 357.3  | 300.5  | 283.3  |
| 57.5° | 502.8  | 419.3  | 315.1  | 261.7  | 245.4  |
| 60°   | 459.8  | 374.5  | 273.8  | 224.7  | 217.0  |
| 62.5° | 415.9  | 332.3  | 235.1  | 197.2  | 192.0  |
| 65°   | 369.4  | 288.4  | 196.3  | 173.9  | 170.5  |
| 67.5° | 325.5  | 246.2  | 165.3  | 152.4  | 149.0  |
| 70°   | 280.7  | 204.1  | 142.1  | 130.9  | 129.1  |
| 72.5° | 236.8  | 163.6  | 119.7  | 111.9  | 110.2  |
| 75°   | 192.0  | 127.4  | 99.0   | 93.0   | 92.1   |
| 77.5° | 150.7  | 95.6   | 78.4   | 75.8   | 74.0   |
| 80°   | 111.9  | 71.5   | 60.3   | 58.5   | 57.7   |
| 82.5° | 76.6   | 49.1   | 43.0   | 43.0   | 41.3   |
| 85°   | 43.9   | 30.1   | 26.7   | 27.6   | 26.7   |
| 87.5° | 16.4   | 12.9   | 12.1   | 12.9   | 12.9   |
| 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 | 18.59            | 20.13 | 18.95 | 20.44 | 20.76 | 14.97          | 16.51 | 15.33 | 16.82 | 17.14 |
|                 | 3H   | 20.37            | 21.76 | 20.75 | 22.08 | 22.45 | 16.45          | 17.83 | 16.82 | 18.16 | 18.52 |
|                 | 4H   | 21.03            | 22.33 | 21.43 | 22.67 | 23.05 | 17.04          | 18.33 | 17.44 | 18.68 | 19.06 |
|                 | 6H   | 21.50            | 22.70 | 21.92 | 23.07 | 23.46 | 17.50          | 18.70 | 17.91 | 19.07 | 19.46 |
|                 | 8H   | 21.66            | 22.80 | 22.08 | 23.19 | 23.59 | 17.66          | 18.80 | 18.08 | 19.19 | 19.59 |
|                 | 12H  | 21.75            | 22.85 | 22.18 | 23.23 | 23.66 | 17.77          | 18.87 | 18.20 | 19.25 | 19.68 |
| 4H              | 2H   | 18.72            | 20.02 | 19.12 | 20.37 | 20.75 | 15.65          | 16.95 | 16.05 | 17.29 | 17.67 |
|                 | 3H   | 20.69            | 21.77 | 21.10 | 22.17 | 22.57 | 17.32          | 18.40 | 17.73 | 18.80 | 19.20 |
|                 | 4H   | 21.44            | 22.41 | 21.87 | 22.83 | 23.26 | 18.03          | 19.00 | 18.46 | 19.42 | 19.85 |
|                 | 6H   | 22.03            | 22.88 | 22.49 | 23.32 | 23.78 | 18.61          | 19.46 | 19.07 | 19.90 | 20.36 |
|                 | 8H   | 22.24            | 23.03 | 22.70 | 23.48 | 23.94 | 18.82          | 19.61 | 19.28 | 20.06 | 20.52 |
|                 | 12H  | 22.39            | 23.10 | 22.87 | 23.57 | 24.04 | 18.98          | 19.69 | 19.46 | 20.17 | 20.64 |
| 8H              | 4H   | 21.50            | 22.29 | 21.96 | 22.74 | 23.20 | 18.39          | 19.18 | 18.85 | 19.63 | 20.09 |
|                 | 6H   | 22.16            | 22.82 | 22.66 | 23.31 | 23.78 | 19.09          | 19.75 | 19.59 | 20.24 | 20.72 |
|                 | 8H   | 22.41            | 23.00 | 22.93 | 23.51 | 24.00 | 19.38          | 19.97 | 19.89 | 20.47 | 20.96 |
|                 | 12H  | 22.62            | 23.14 | 23.13 | 23.64 | 24.20 | 19.62          | 20.14 | 20.13 | 20.63 | 21.20 |
| 12H             | 4H   | 21.49            | 22.20 | 21.98 | 22.68 | 23.15 | 18.44          | 19.15 | 18.92 | 19.63 | 20.10 |
|                 | 6H   | 22.16            | 22.75 | 22.67 | 23.25 | 23.74 | 19.16          | 19.75 | 19.68 | 20.26 | 20.75 |
|                 | 8H   | 22.45            | 22.97 | 22.96 | 23.46 | 24.03 | 19.51          | 20.03 | 20.02 | 20.52 | 21.08 |