

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: P1056626

Luminaire Tested: S125R3DRP-H850D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056626  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DRP-H850D950-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

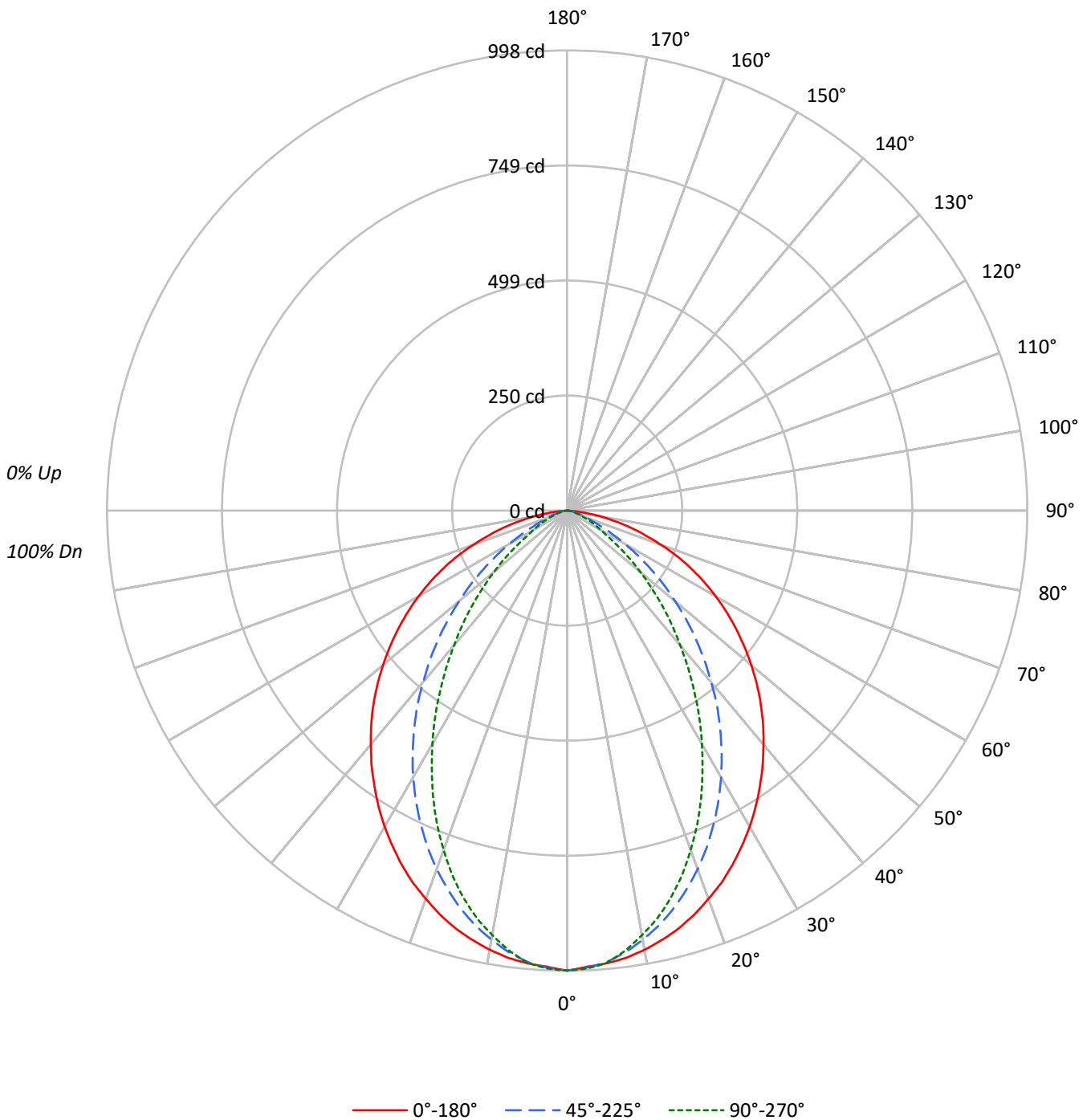
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1803.3 lumens  
Efficiency: N/A  
Efficacy: 75.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.8  
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 | 107 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |
| 2   | 102 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 90  | 86  | 82  | 87  | 84  | 80  | 84  | 81  | 79  | 77  |
| 3   | 95  | 86  | 79  | 73  | 92  | 84  | 78  | 73  | 81  | 76  | 71  | 79  | 74  | 70  | 76  | 72  | 69  | 67  |
| 4   | 88  | 77  | 70  | 64  | 86  | 76  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |
| 7   | 71  | 58  | 50  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 46  | 41  | 36  | 35  |
| 10  | 58  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7053 | 7053 | 7053 |
| 5°  | 6995 | 6975 | 6988 |
| 10° | 6943 | 6784 | 6711 |
| 15° | 6863 | 6538 | 6362 |
| 20° | 6741 | 6227 | 5894 |
| 25° | 6615 | 5859 | 5361 |
| 30° | 6463 | 5452 | 4774 |
| 35° | 6290 | 4991 | 4154 |
| 40° | 6113 | 4484 | 3512 |
| 45° | 5939 | 3953 | 2909 |
| 50° | 5730 | 3363 | 2286 |
| 55° | 5511 | 2732 | 1663 |
| 60° | 5264 | 2037 | 1189 |
| 65° | 4945 | 1345 | 927  |
| 70° | 4469 | 936  | 649  |
| 75° | 3887 | 606  | 505  |
| 80° | 3045 | 452  | 415  |
| 85° | 1574 | 373  | 300  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5939 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 92.9   | 5.2       |
| 10°-20°   | 252.7  | 14.0      |
| 20°-30°   | 349.4  | 19.4      |
| 30°-40°   | 370.1  | 20.5      |
| 40°-50°   | 323.1  | 17.9      |
| 50°-60°   | 229.8  | 12.7      |
| 60°-70°   | 127.8  | 7.1       |
| 70°-80°   | 49.1   | 2.7       |
| 80°-90°   | 8.5    | 0.5       |
| 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°    | 694.9  | 38.5      |
| 0°-40°    | 1065.1 | 59.1      |
| 0°-60°    | 1617.9 | 89.7      |
| 0°-90°    | 1803.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1803.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 998 | 998   | 998 | 998   | 998 |      |
| 5°  | 986 | 993   | 983 | 980   | 985 | 94   |
| 15° | 938 | 929   | 893 | 874   | 869 | 264  |
| 25° | 848 | 819   | 751 | 705   | 687 | 390  |
| 35° | 729 | 679   | 578 | 508   | 481 | 456  |
| 45° | 594 | 523   | 395 | 316   | 291 | 458  |
| 55° | 447 | 358   | 222 | 153   | 135 | 400  |
| 65° | 296 | 194   | 80  | 59    | 55  | 292  |
| 75° | 142 | 55    | 22  | 18    | 18  | 151  |
| 85° | 19  | 6     | 5   | 4     | 4   | 29   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5°  | 45°   | 67.5° | 90°   |
|-------|-------|--------|-------|-------|-------|
| 0°    | 997.7 | 997.7  | 997.7 | 997.7 | 997.7 |
| 2.5°  | 990.3 | 1000.5 | 992.2 | 993.1 | 994.0 |
| 5°    | 985.7 | 993.1  | 982.9 | 980.2 | 984.8 |
| 7.5°  | 978.3 | 983.9  | 966.3 | 959.9 | 962.6 |
| 10°   | 967.2 | 969.1  | 945.1 | 935.8 | 934.9 |
| 12.5° | 953.4 | 950.6  | 921.1 | 906.3 | 905.3 |
| 15°   | 937.7 | 929.4  | 893.3 | 873.9 | 869.3 |
| 17.5° | 918.3 | 905.3  | 861.0 | 836.1 | 828.7 |
| 20°   | 896.1 | 878.6  | 827.7 | 795.4 | 783.4 |
| 22.5° | 873.9 | 849.9  | 790.8 | 750.1 | 737.2 |
| 25°   | 848.1 | 819.4  | 751.1 | 704.9 | 687.3 |
| 27.5° | 820.4 | 786.2  | 710.4 | 656.8 | 635.6 |
| 30°   | 791.7 | 752.0  | 667.9 | 607.9 | 584.8 |
| 32.5° | 761.2 | 716.0  | 623.6 | 558.0 | 534.0 |
| 35°   | 728.9 | 679.0  | 578.3 | 508.1 | 481.3 |
| 37.5° | 696.6 | 641.1  | 534.0 | 459.1 | 431.4 |
| 40°   | 662.4 | 602.3  | 485.9 | 409.3 | 380.6 |
| 42.5° | 629.1 | 562.6  | 440.7 | 362.1 | 336.3 |
| 45°   | 594.0 | 522.9  | 395.4 | 315.9 | 291.0 |
| 47.5° | 558.0 | 481.3  | 350.1 | 272.5 | 247.6 |
| 50°   | 521.0 | 440.7  | 305.8 | 230.0 | 207.9 |
| 52.5° | 484.1 | 400.0  | 264.2 | 189.4 | 170.0 |
| 55°   | 447.1 | 358.4  | 221.7 | 153.4 | 134.9 |
| 57.5° | 410.2 | 317.8  | 182.0 | 120.1 | 103.5 |
| 60°   | 372.3 | 276.2  | 144.1 | 88.7  | 84.1  |
| 62.5° | 334.4 | 235.6  | 111.8 | 73.0  | 69.3  |
| 65°   | 295.6 | 194.0  | 80.4  | 59.1  | 55.4  |
| 67.5° | 256.8 | 156.1  | 58.2  | 45.3  | 42.5  |
| 70°   | 216.2 | 119.2  | 45.3  | 34.2  | 31.4  |
| 72.5° | 177.4 | 85.9   | 32.3  | 24.9  | 24.0  |
| 75°   | 142.3 | 55.4   | 22.2  | 18.5  | 18.5  |
| 77.5° | 107.2 | 33.3   | 15.7  | 13.9  | 13.9  |
| 80°   | 74.8  | 19.4   | 11.1  | 10.2  | 10.2  |
| 82.5° | 45.3  | 10.2   | 7.4   | 6.5   | 6.5   |
| 85°   | 19.4  | 5.5    | 4.6   | 3.7   | 3.7   |
| 87.5° | 3.7   | 1.8    | 1.8   | 1.8   | 1.8   |
| 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 | 17.95            | 19.39 | 18.31 | 19.71 | 20.02 | 10.59          | 12.03 | 10.95 | 12.34 | 12.66 |
|                 | 3H   | 19.51            | 20.79 | 19.89 | 21.12 | 21.49 | 11.15          | 12.44 | 11.53 | 12.77 | 13.13 |
|                 | 4H   | 20.03            | 21.23 | 20.43 | 21.58 | 21.96 | 11.28          | 12.48 | 11.68 | 12.83 | 13.21 |
|                 | 6H   | 20.37            | 21.47 | 20.78 | 21.84 | 22.23 | 11.34          | 12.45 | 11.75 | 12.82 | 13.21 |
|                 | 8H   | 20.45            | 21.50 | 20.88 | 21.89 | 22.29 | 11.35          | 12.40 | 11.77 | 12.79 | 13.19 |
|                 | 12H  | 20.47            | 21.48 | 20.90 | 21.86 | 22.29 | 11.34          | 12.34 | 11.77 | 12.72 | 13.15 |
| 4H              | 2H   | 17.85            | 19.05 | 18.25 | 19.40 | 19.78 | 11.15          | 12.35 | 11.55 | 12.70 | 13.08 |
|                 | 3H   | 19.51            | 20.50 | 19.92 | 20.90 | 21.30 | 11.83          | 12.81 | 12.24 | 13.21 | 13.62 |
|                 | 4H   | 20.06            | 20.94 | 20.49 | 21.36 | 21.80 | 11.98          | 12.87 | 12.42 | 13.28 | 13.72 |
|                 | 6H   | 20.45            | 21.22 | 20.91 | 21.66 | 22.13 | 12.10          | 12.86 | 12.56 | 13.30 | 13.77 |
|                 | 8H   | 20.56            | 21.27 | 21.02 | 21.72 | 22.19 | 12.11          | 12.82 | 12.57 | 13.27 | 13.74 |
|                 | 12H  | 20.61            | 21.24 | 21.09 | 21.72 | 22.19 | 12.11          | 12.74 | 12.59 | 13.22 | 13.70 |
| 8H              | 4H   | 19.96            | 20.68 | 20.43 | 21.12 | 21.59 | 12.25          | 12.96 | 12.72 | 13.41 | 13.88 |
|                 | 6H   | 20.35            | 20.94 | 20.85 | 21.43 | 21.91 | 12.39          | 12.97 | 12.89 | 13.47 | 13.95 |
|                 | 8H   | 20.46            | 20.98 | 20.98 | 21.50 | 21.99 | 12.42          | 12.94 | 12.93 | 13.45 | 13.94 |
|                 | 12H  | 20.52            | 20.99 | 21.03 | 21.48 | 22.05 | 12.44          | 12.90 | 12.95 | 13.40 | 13.96 |
| 12H             | 4H   | 19.93            | 20.56 | 20.41 | 21.04 | 21.51 | 12.27          | 12.90 | 12.75 | 13.38 | 13.85 |
|                 | 6H   | 20.30            | 20.82 | 20.82 | 21.34 | 21.83 | 12.40          | 12.92 | 12.92 | 13.44 | 13.93 |
|                 | 8H   | 20.43            | 20.89 | 20.94 | 21.38 | 21.95 | 12.46          | 12.92 | 12.97 | 13.42 | 13.98 |