

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: P1062178

Luminaire Tested: S125RDRP-H850D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1062178  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H850D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

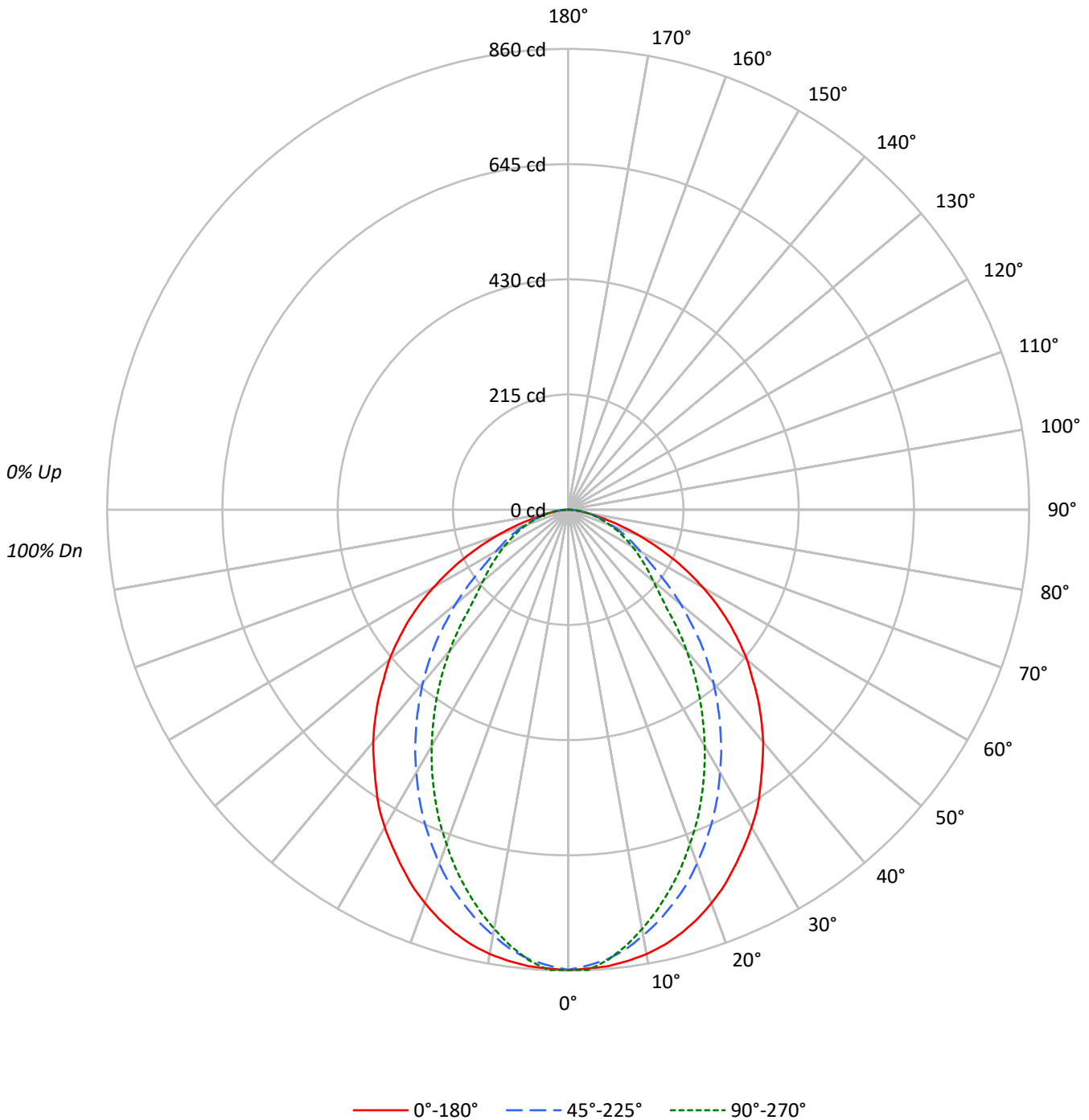
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1626.8 lumens  
Efficiency: N/A  
Efficacy: 69.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' 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   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 78  | 83  | 80  | 77  | 75  |
| 3   | 93  | 84  | 77  | 71  | 91  | 82  | 76  | 70  | 80  | 74  | 69  | 77  | 72  | 68  | 74  | 70  | 67  | 65  |
| 4   | 86  | 75  | 68  | 61  | 84  | 74  | 67  | 61  | 72  | 65  | 60  | 70  | 64  | 59  | 67  | 63  | 59  | 57  |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 54  | 65  | 58  | 53  | 63  | 57  | 53  | 61  | 56  | 52  | 50  |
| 6   | 74  | 62  | 54  | 48  | 73  | 61  | 53  | 48  | 59  | 53  | 47  | 58  | 52  | 47  | 56  | 51  | 47  | 45  |
| 7   | 69  | 57  | 49  | 43  | 68  | 56  | 48  | 43  | 55  | 48  | 43  | 53  | 47  | 42  | 52  | 46  | 42  | 40  |
| 8   | 65  | 52  | 44  | 39  | 63  | 52  | 44  | 39  | 50  | 43  | 39  | 49  | 43  | 38  | 48  | 42  | 38  | 36  |
| 9   | 61  | 48  | 41  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 33  |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 42  | 36  | 32  | 30  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5913 | 5913 | 5913 |
| 5°  | 5909 | 5820 | 5832 |
| 10° | 5887 | 5639 | 5554 |
| 15° | 5829 | 5417 | 5231 |
| 20° | 5725 | 5151 | 4864 |
| 25° | 5582 | 4845 | 4477 |
| 30° | 5441 | 4500 | 4048 |
| 35° | 5259 | 4154 | 3589 |
| 40° | 5087 | 3788 | 3093 |
| 45° | 4875 | 3387 | 2533 |
| 50° | 4664 | 2936 | 2217 |
| 55° | 4377 | 2451 | 2048 |
| 60° | 3993 | 2144 | 1913 |
| 65° | 3495 | 1960 | 1777 |
| 70° | 2834 | 1763 | 1653 |
| 75° | 2035 | 1612 | 1538 |
| 80° | 1404 | 1443 | 1443 |
| 85° | 1035 | 1256 | 1327 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4875 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 79.8   | 4.9       |
| 10°-20°   | 216.0  | 13.3      |
| 20°-30°   | 298.5  | 18.3      |
| 30°-40°   | 317.9  | 19.5      |
| 40°-50°   | 279.3  | 17.2      |
| 50°-60°   | 211.8  | 13.0      |
| 60°-70°   | 137.5  | 8.5       |
| 70°-80°   | 68.1   | 4.2       |
| 80°-90°   | 17.8   | 1.1       |
| 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°    | 594.3  | 36.5      |
| 0°-40°    | 912.2  | 56.1      |
| 0°-60°    | 1403.3 | 86.3      |
| 0°-90°    | 1626.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1626.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 859 | 859   | 859 | 859   | 859 |      |
| 5°  | 855 | 853   | 842 | 845   | 844 | 81   |
| 15° | 818 | 799   | 760 | 742   | 734 | 230  |
| 25° | 735 | 695   | 638 | 605   | 589 | 339  |
| 35° | 626 | 568   | 494 | 449   | 427 | 392  |
| 45° | 501 | 431   | 348 | 285   | 260 | 386  |
| 55° | 365 | 293   | 204 | 176   | 171 | 325  |
| 65° | 214 | 159   | 120 | 111   | 109 | 212  |
| 75° | 76  | 67    | 61  | 59    | 58  | 85   |
| 85° | 13  | 15    | 16  | 16    | 17  | 16   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 858.8 | 858.8 | 858.8 | 858.8 | 858.8 |
| 2.5°  | 856.9 | 858.8 | 851.3 | 857.8 | 859.7 |
| 5°    | 855.0 | 853.2 | 842.0 | 844.8 | 843.8 |
| 7.5°  | 849.4 | 845.7 | 827.1 | 825.2 | 821.5 |
| 10°   | 842.0 | 832.7 | 806.5 | 800.0 | 794.4 |
| 12.5° | 831.7 | 816.8 | 785.1 | 772.0 | 765.5 |
| 15°   | 817.7 | 799.1 | 759.9 | 742.2 | 733.8 |
| 17.5° | 800.9 | 774.8 | 733.8 | 709.6 | 700.2 |
| 20°   | 781.4 | 750.6 | 703.0 | 675.1 | 663.9 |
| 22.5° | 759.9 | 723.6 | 670.4 | 640.6 | 628.5 |
| 25°   | 734.7 | 694.7 | 637.8 | 605.1 | 589.3 |
| 27.5° | 709.6 | 664.8 | 603.3 | 566.9 | 550.1 |
| 30°   | 684.4 | 633.1 | 566.0 | 526.8 | 509.1 |
| 32.5° | 657.4 | 600.5 | 531.5 | 488.6 | 468.1 |
| 35°   | 625.7 | 567.8 | 494.2 | 449.4 | 427.0 |
| 37.5° | 594.9 | 533.3 | 457.8 | 407.5 | 386.0 |
| 40°   | 566.0 | 500.7 | 421.5 | 366.4 | 344.1 |
| 42.5° | 533.3 | 466.2 | 385.1 | 327.3 | 302.1 |
| 45°   | 500.7 | 430.8 | 347.8 | 285.3 | 260.1 |
| 47.5° | 466.2 | 397.2 | 308.6 | 247.1 | 230.3 |
| 50°   | 435.4 | 362.7 | 274.1 | 218.2 | 207.0 |
| 52.5° | 400.0 | 329.1 | 238.7 | 195.8 | 188.3 |
| 55°   | 364.6 | 292.8 | 204.2 | 176.2 | 170.6 |
| 57.5° | 328.2 | 260.1 | 177.2 | 159.4 | 153.8 |
| 60°   | 290.0 | 226.6 | 155.7 | 141.7 | 138.9 |
| 62.5° | 251.8 | 192.1 | 137.1 | 126.8 | 123.1 |
| 65°   | 214.5 | 159.4 | 120.3 | 111.0 | 109.1 |
| 67.5° | 176.2 | 129.6 | 103.5 | 97.0  | 96.0  |
| 70°   | 140.8 | 105.4 | 87.6  | 83.9  | 82.1  |
| 72.5° | 108.2 | 83.9  | 73.7  | 70.9  | 69.9  |
| 75°   | 76.5  | 67.1  | 60.6  | 58.7  | 57.8  |
| 77.5° | 51.3  | 51.3  | 48.5  | 46.6  | 47.6  |
| 80°   | 35.4  | 37.3  | 36.4  | 36.4  | 36.4  |
| 82.5° | 23.3  | 25.2  | 26.1  | 26.1  | 26.1  |
| 85°   | 13.1  | 14.9  | 15.9  | 15.9  | 16.8  |
| 87.5° | 4.7   | 5.6   | 6.5   | 7.5   | 7.5   |
| 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 | 16.73            | 18.22 | 17.09 | 18.53 | 18.85 | 12.97          | 14.46 | 13.33 | 14.77 | 15.09 |
|                 | 3H   | 18.04            | 19.37 | 18.42 | 19.70 | 20.06 | 14.55          | 15.89 | 14.93 | 16.22 | 16.58 |
|                 | 4H   | 18.41            | 19.66 | 18.81 | 20.01 | 20.39 | 15.15          | 16.41 | 15.55 | 16.76 | 17.13 |
|                 | 6H   | 18.58            | 19.74 | 19.00 | 20.11 | 20.50 | 15.63          | 16.78 | 16.04 | 17.15 | 17.54 |
|                 | 8H   | 18.62            | 19.72 | 19.05 | 20.11 | 20.51 | 15.79          | 16.89 | 16.21 | 17.28 | 17.68 |
|                 | 12H  | 18.63            | 19.69 | 19.06 | 20.07 | 20.50 | 15.90          | 16.95 | 16.33 | 17.33 | 17.76 |
| 4H              | 2H   | 16.84            | 18.09 | 17.24 | 18.44 | 18.82 | 13.63          | 14.88 | 14.03 | 15.23 | 15.61 |
|                 | 3H   | 18.33            | 19.36 | 18.74 | 19.76 | 20.17 | 15.41          | 16.45 | 15.82 | 16.85 | 17.25 |
|                 | 4H   | 18.80            | 19.73 | 19.23 | 20.15 | 20.59 | 16.13          | 17.06 | 16.56 | 17.48 | 17.92 |
|                 | 6H   | 19.09            | 19.90 | 19.55 | 20.34 | 20.80 | 16.72          | 17.53 | 17.18 | 17.97 | 18.43 |
|                 | 8H   | 19.16            | 19.91 | 19.62 | 20.36 | 20.83 | 16.92          | 17.68 | 17.39 | 18.13 | 18.59 |
|                 | 12H  | 19.20            | 19.87 | 19.68 | 20.35 | 20.82 | 17.08          | 17.75 | 17.56 | 18.23 | 18.70 |
| 8H              | 4H   | 18.88            | 19.64 | 19.35 | 20.09 | 20.55 | 16.44          | 17.20 | 16.90 | 17.64 | 18.11 |
|                 | 6H   | 19.25            | 19.87 | 19.75 | 20.36 | 20.84 | 17.15          | 17.77 | 17.65 | 18.26 | 18.74 |
|                 | 8H   | 19.36            | 19.92 | 19.88 | 20.44 | 20.92 | 17.43          | 17.99 | 17.94 | 18.50 | 18.99 |
|                 | 12H  | 19.45            | 19.95 | 19.96 | 20.44 | 21.00 | 17.66          | 18.15 | 18.17 | 18.64 | 19.21 |
| 12H             | 4H   | 18.88            | 19.55 | 19.36 | 20.03 | 20.50 | 16.47          | 17.14 | 16.95 | 17.62 | 18.09 |
|                 | 6H   | 19.25            | 19.81 | 19.77 | 20.32 | 20.81 | 17.20          | 17.76 | 17.71 | 18.27 | 18.76 |
|                 | 8H   | 19.41            | 19.91 | 19.92 | 20.40 | 20.96 | 17.54          | 18.03 | 18.05 | 18.52 | 19.09 |