

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1062085

Luminaire Tested: S125RDR-H610D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062085  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-47)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H610D830-X4F0-XX-UDD-SVL-B  
Description: DEFINE 5 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

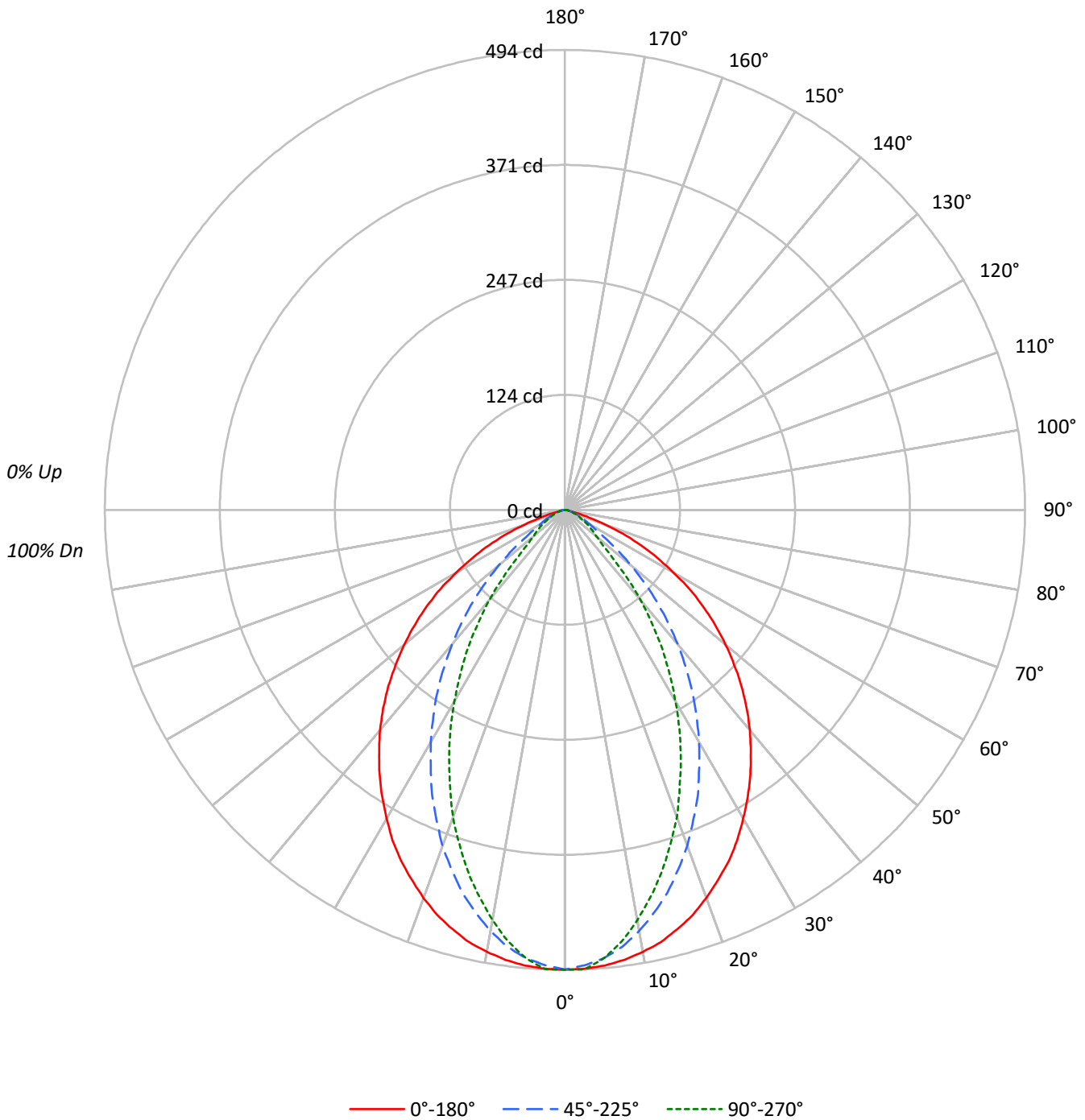
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 714.3 lumens  
Efficiency: N/A  
Efficacy: 41.1 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.85 / 1.01  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
Input Voltage (V): 120  
Input Current (Ain): 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 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |   |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |   |
| 2   | 104 | 98  | 93  | 88  | 102 | 96  | 91  | 87  | 93  | 89  | 85  | 90  | 86  | 83  | 87  | 84  | 82  | 80  |    |    |    |   |
| 3   | 97  | 89  | 82  | 77  | 95  | 87  | 81  | 77  | 84  | 79  | 75  | 82  | 78  | 74  | 79  | 76  | 73  | 71  |    |    |    |   |
| 4   | 90  | 81  | 74  | 68  | 88  | 79  | 73  | 68  | 77  | 71  | 67  | 75  | 70  | 66  | 73  | 69  | 65  | 63  |    |    |    |   |
| 5   | 84  | 74  | 66  | 61  | 82  | 73  | 66  | 61  | 71  | 65  | 60  | 69  | 64  | 59  | 67  | 63  | 59  | 57  |    |    |    |   |
| 6   | 79  | 68  | 60  | 55  | 77  | 67  | 60  | 55  | 65  | 59  | 54  | 64  | 58  | 54  | 62  | 57  | 53  | 52  |    |    |    |   |
| 7   | 74  | 62  | 55  | 50  | 72  | 62  | 55  | 50  | 60  | 54  | 49  | 59  | 53  | 49  | 58  | 53  | 49  | 47  |    |    |    |   |
| 8   | 69  | 58  | 50  | 45  | 68  | 57  | 50  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 54  | 48  | 45  | 43  |    |    |    |   |
| 9   | 65  | 54  | 47  | 42  | 64  | 53  | 46  | 42  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |    |    |    |   |
| 10  | 62  | 50  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |    |    |    |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3401 | 3401 | 3401 |
| 5°  | 3396 | 3340 | 3340 |
| 10° | 3370 | 3212 | 3128 |
| 15° | 3324 | 3033 | 2868 |
| 20° | 3251 | 2814 | 2575 |
| 25° | 3161 | 2565 | 2236 |
| 30° | 3043 | 2290 | 1886 |
| 35° | 2917 | 2005 | 1530 |
| 40° | 2776 | 1692 | 1133 |
| 45° | 2610 | 1356 | 685  |
| 50° | 2413 | 995  | 470  |
| 55° | 2178 | 610  | 391  |
| 60° | 1849 | 414  | 311  |
| 65° | 1461 | 318  | 246  |
| 70° | 922  | 227  | 201  |
| 75° | 301  | 168  | 168  |
| 80° | 99   | 123  | 151  |
| 85° | 47   | 103  | 103  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2610 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 45.7   | 6.4       |
| 10°-20°   | 120.6  | 16.9      |
| 20°-30°   | 158.7  | 22.2      |
| 30°-40°   | 155.9  | 21.8      |
| 40°-50°   | 118.0  | 16.5      |
| 50°-60°   | 71.5   | 10.0      |
| 60°-70°   | 33.8   | 4.7       |
| 70°-80°   | 8.8    | 1.2       |
| 80°-90°   | 1.3    | 0.2       |
| 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°    | 325.0  | 45.5      |
| 0°-40°    | 480.9  | 67.3      |
| 0°-60°    | 670.4  | 93.9      |
| 0°-90°    | 714.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 714.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 494 | 494   | 494 | 494   | 494 |      |
| 5°  | 491 | 490   | 483 | 484   | 483 | 47   |
| 15° | 466 | 454   | 426 | 409   | 402 | 131  |
| 25° | 416 | 385   | 338 | 306   | 294 | 191  |
| 35° | 347 | 301   | 238 | 196   | 182 | 217  |
| 45° | 268 | 211   | 139 | 88    | 70  | 206  |
| 55° | 181 | 124   | 51  | 34    | 33  | 161  |
| 65° | 90  | 46    | 20  | 16    | 15  | 88   |
| 75° | 11  | 8     | 6   | 6     | 6   | 18   |
| 85° | 1   | 1     | 1   | 1     | 1   | 1    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 493.9 | 493.9 | 493.9 | 493.9 | 493.9 |
| 2.5°  | 493.3 | 493.3 | 489.5 | 493.9 | 493.9 |
| 5°    | 491.4 | 490.1 | 483.2 | 483.8 | 483.2 |
| 7.5°  | 487.6 | 485.1 | 473.2 | 470.0 | 467.5 |
| 10°   | 482.0 | 476.9 | 459.4 | 451.8 | 447.4 |
| 12.5° | 475.7 | 466.9 | 443.0 | 432.4 | 425.5 |
| 15°   | 466.3 | 453.7 | 425.5 | 409.2 | 402.3 |
| 17.5° | 456.2 | 438.0 | 404.8 | 385.3 | 376.5 |
| 20°   | 443.7 | 422.3 | 384.1 | 360.2 | 351.4 |
| 22.5° | 429.9 | 404.8 | 360.2 | 333.9 | 321.9 |
| 25°   | 416.1 | 384.7 | 337.6 | 306.2 | 294.3 |
| 27.5° | 400.4 | 364.6 | 311.9 | 279.3 | 266.1 |
| 30°   | 382.8 | 344.5 | 288.0 | 254.2 | 237.2 |
| 32.5° | 365.2 | 323.8 | 262.9 | 225.9 | 209.0 |
| 35°   | 347.0 | 300.6 | 238.5 | 196.4 | 182.0 |
| 37.5° | 327.6 | 278.6 | 213.4 | 169.4 | 152.5 |
| 40°   | 308.8 | 256.7 | 188.3 | 141.8 | 126.1 |
| 42.5° | 288.7 | 234.7 | 163.2 | 114.8 | 97.3  |
| 45°   | 268.0 | 210.9 | 139.3 | 88.5  | 70.3  |
| 47.5° | 246.6 | 189.5 | 115.5 | 65.3  | 52.7  |
| 50°   | 225.3 | 166.9 | 92.9  | 48.3  | 43.9  |
| 52.5° | 203.3 | 145.0 | 70.3  | 40.2  | 38.3  |
| 55°   | 181.4 | 124.3 | 50.8  | 34.5  | 32.6  |
| 57.5° | 158.8 | 101.7 | 38.3  | 29.5  | 27.6  |
| 60°   | 134.3 | 81.6  | 30.1  | 24.5  | 22.6  |
| 62.5° | 111.7 | 64.0  | 24.5  | 20.1  | 18.8  |
| 65°   | 89.7  | 45.8  | 19.5  | 16.3  | 15.1  |
| 67.5° | 67.1  | 30.7  | 15.1  | 12.6  | 12.6  |
| 70°   | 45.8  | 20.1  | 11.3  | 10.0  | 10.0  |
| 72.5° | 27.6  | 11.9  | 8.2   | 8.2   | 8.2   |
| 75°   | 11.3  | 7.5   | 6.3   | 6.3   | 6.3   |
| 77.5° | 3.8   | 4.4   | 4.4   | 5.0   | 5.0   |
| 80°   | 2.5   | 2.5   | 3.1   | 3.8   | 3.8   |
| 82.5° | 1.3   | 1.9   | 1.9   | 2.5   | 2.5   |
| 85°   | 0.6   | 0.6   | 1.3   | 1.3   | 1.3   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.6   | 0.6   |
| 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 | 13.58            | 14.92 | 13.95 | 15.23 | 15.54 | 4.24           | 5.57 | 4.60 | 5.88 | 6.20 |
|                 | 3H   | 14.29            | 15.47 | 14.67 | 15.80 | 16.16 | 5.02           | 6.20 | 5.40 | 6.53 | 6.89 |
|                 | 4H   | 14.30            | 15.40 | 14.71 | 15.75 | 16.13 | 5.27           | 6.37 | 5.67 | 6.72 | 7.10 |
|                 | 6H   | 14.24            | 15.24 | 14.65 | 15.61 | 16.00 | 5.45           | 6.46 | 5.87 | 6.83 | 7.22 |
|                 | 8H   | 14.19            | 15.15 | 14.62 | 15.54 | 15.94 | 5.49           | 6.45 | 5.93 | 6.84 | 7.24 |
|                 | 12H  | 14.15            | 15.06 | 14.59 | 15.44 | 15.88 | 5.50           | 6.41 | 5.94 | 6.80 | 7.23 |
| 4H              | 2H   | 13.41            | 14.51 | 13.82 | 14.86 | 15.24 | 4.73           | 5.82 | 5.13 | 6.17 | 6.56 |
|                 | 3H   | 14.16            | 15.05 | 14.57 | 15.46 | 15.86 | 5.64           | 6.53 | 6.05 | 6.93 | 7.33 |
|                 | 4H   | 14.18            | 14.97 | 14.61 | 15.39 | 15.83 | 5.95           | 6.75 | 6.39 | 7.17 | 7.61 |
|                 | 6H   | 14.12            | 14.80 | 14.58 | 15.25 | 15.71 | 6.21           | 6.90 | 6.67 | 7.34 | 7.81 |
|                 | 8H   | 14.06            | 14.70 | 14.53 | 15.15 | 15.62 | 6.28           | 6.91 | 6.75 | 7.36 | 7.83 |
|                 | 12H  | 14.02            | 14.58 | 14.51 | 15.07 | 15.54 | 6.30           | 6.87 | 6.79 | 7.35 | 7.82 |
| 8H              | 4H   | 14.06            | 14.70 | 14.53 | 15.14 | 15.62 | 6.06           | 6.70 | 6.53 | 7.15 | 7.62 |
|                 | 6H   | 13.98            | 14.50 | 14.49 | 15.00 | 15.48 | 6.38           | 6.90 | 6.88 | 7.40 | 7.88 |
|                 | 8H   | 13.93            | 14.40 | 14.45 | 14.91 | 15.40 | 6.49           | 6.95 | 7.01 | 7.47 | 7.96 |
|                 | 12H  | 13.89            | 14.30 | 14.41 | 14.80 | 15.37 | 6.55           | 6.96 | 7.07 | 7.46 | 8.03 |
| 12H             | 4H   | 14.02            | 14.58 | 14.50 | 15.06 | 15.54 | 6.03           | 6.60 | 6.52 | 7.08 | 7.56 |
|                 | 6H   | 13.93            | 14.39 | 14.45 | 14.91 | 15.40 | 6.35           | 6.82 | 6.88 | 7.34 | 7.83 |
|                 | 8H   | 13.89            | 14.30 | 14.41 | 14.80 | 15.37 | 6.49           | 6.90 | 7.01 | 7.40 | 7.97 |