

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: P1058553

Luminaire Tested: S122RDRP-H865D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058553  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H865D850-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

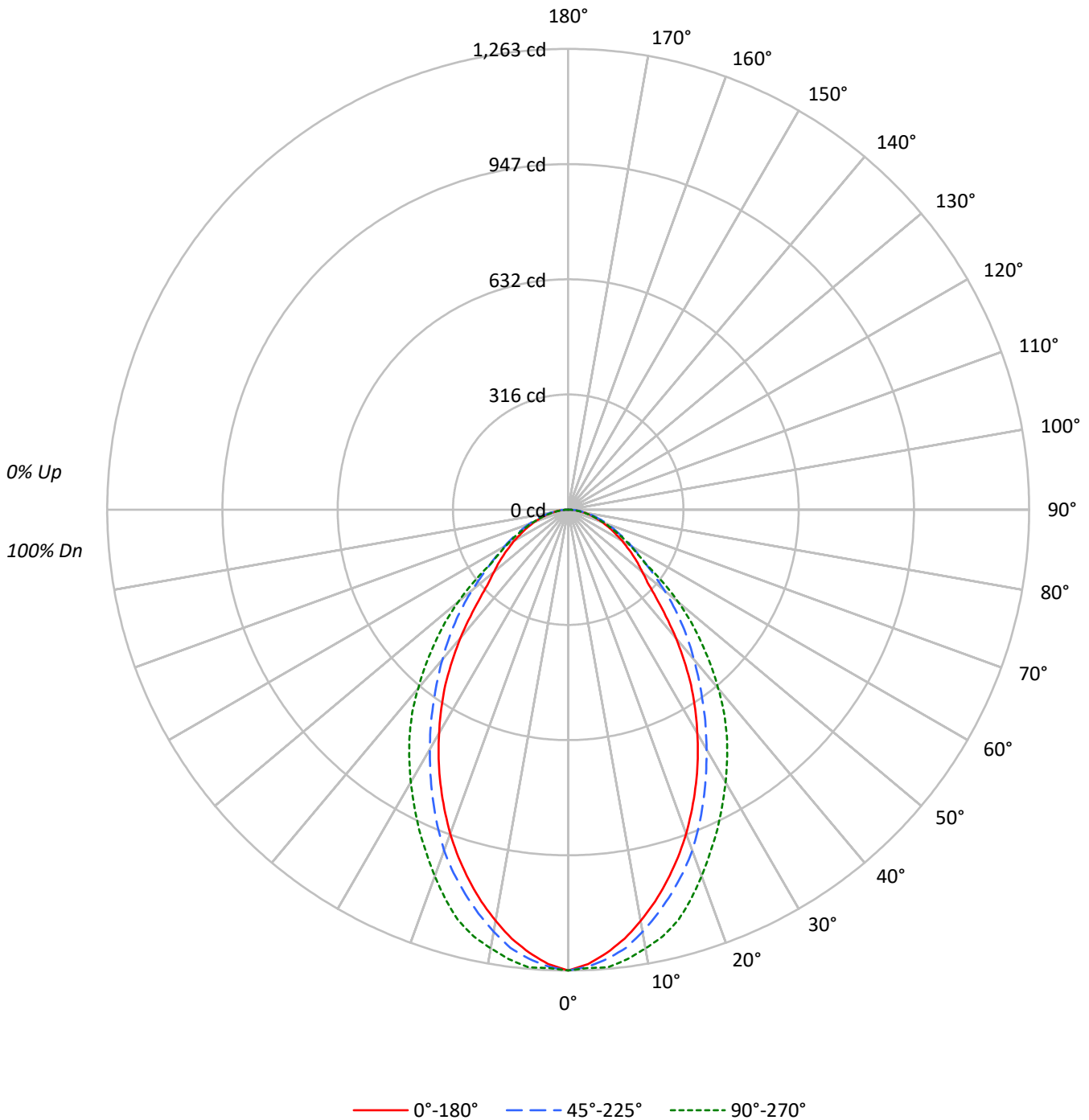
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2058.6 lumens  
Efficiency: N/A  
Efficacy: 66.0 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.2  
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 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  | 87  | 83  | 80  | 84  | 81  | 78  | 76  |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 74  | 70  | 76  | 72  | 68  | 67  |
| 4   | 88  | 77  | 69  | 64  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |
| 5   | 81  | 70  | 62  | 56  | 80  | 69  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 61  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |
| 7   | 71  | 59  | 51  | 46  | 69  | 58  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 44  | 43  |
| 8   | 67  | 54  | 47  | 41  | 65  | 54  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |
| 9   | 63  | 50  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 37  | 47  | 41  | 37  | 36  |
| 10  | 59  | 47  | 40  | 35  | 58  | 46  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 44  | 38  | 34  | 33  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 23302 | 23302 | 23302 |
| 5°  | 22585 | 22887 | 23315 |
| 10° | 21447 | 22007 | 22872 |
| 15° | 20076 | 20828 | 22255 |
| 20° | 18557 | 19517 | 20984 |
| 25° | 16864 | 17858 | 19684 |
| 30° | 15073 | 16144 | 18371 |
| 35° | 13214 | 14466 | 17068 |
| 40° | 11054 | 12918 | 15404 |
| 45° | 8857  | 11446 | 13465 |
| 50° | 7602  | 9861  | 11305 |
| 55° | 6946  | 8387  | 8342  |
| 60° | 6314  | 7418  | 7267  |
| 65° | 5750  | 6641  | 6344  |
| 70° | 5276  | 6080  | 5643  |
| 75° | 4934  | 5618  | 4934  |
| 80° | 4612  | 5196  | 4325  |
| 85° | 4594  | 5462  | 3747  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 13465 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 116.5  | 5.7       |
| 10°-20°   | 308.6  | 15.0      |
| 20°-30°   | 407.1  | 19.8      |
| 30°-40°   | 409.9  | 19.9      |
| 40°-50°   | 333.6  | 16.2      |
| 50°-60°   | 227.5  | 11.0      |
| 60°-70°   | 147.6  | 7.2       |
| 70°-80°   | 81.3   | 3.9       |
| 80°-90°   | 26.5   | 1.3       |
| 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°    | 832.2  | 40.4      |
| 0°-40°    | 1242.1 | 60.3      |
| 0°-60°    | 1803.2 | 87.6      |
| 0°-90°    | 2058.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2058.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1263 | 1263  | 1263 | 1263  | 1263 |      |
| 5°  | 1219 | 1242  | 1236 | 1246  | 1259 | 114  |
| 15° | 1051 | 1078  | 1090 | 1135  | 1165 | 294  |
| 25° | 828  | 855   | 877  | 916   | 967  | 380  |
| 35° | 587  | 616   | 642  | 698   | 758  | 364  |
| 45° | 339  | 382   | 439  | 477   | 516  | 267  |
| 55° | 216  | 238   | 261  | 262   | 259  | 193  |
| 65° | 132  | 156   | 152  | 144   | 145  | 131  |
| 75° | 69   | 86    | 79   | 71    | 69   | 73   |
| 85° | 22   | 28    | 26   | 20    | 18   | 24   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1262.8 | 1262.8 | 1262.8 | 1262.8 | 1262.8 |
| 2.5°  | 1246.5 | 1266.8 | 1253.2 | 1254.6 | 1257.3 |
| 5°    | 1219.3 | 1242.4 | 1235.6 | 1246.5 | 1258.7 |
| 7.5°  | 1185.4 | 1208.4 | 1211.2 | 1227.4 | 1242.4 |
| 10°   | 1144.6 | 1170.4 | 1174.5 | 1198.9 | 1220.7 |
| 12.5° | 1099.8 | 1128.3 | 1133.8 | 1169.1 | 1197.6 |
| 15°   | 1050.9 | 1078.1 | 1090.3 | 1135.1 | 1165.0 |
| 17.5° | 999.3  | 1025.1 | 1044.1 | 1084.9 | 1118.8 |
| 20°   | 945.0  | 969.5  | 993.9  | 1030.6 | 1068.6 |
| 22.5° | 886.6  | 913.8  | 936.9  | 973.5  | 1017.0 |
| 25°   | 828.3  | 855.4  | 877.1  | 916.5  | 966.8  |
| 27.5° | 768.5  | 795.7  | 817.4  | 859.5  | 913.8  |
| 30°   | 707.4  | 735.9  | 757.7  | 805.2  | 862.2  |
| 32.5° | 647.7  | 676.2  | 700.6  | 750.9  | 810.6  |
| 35°   | 586.6  | 616.4  | 642.2  | 697.9  | 757.7  |
| 37.5° | 521.4  | 555.3  | 587.9  | 643.6  | 702.0  |
| 40°   | 458.9  | 497.0  | 536.3  | 587.9  | 639.5  |
| 42.5° | 396.5  | 438.6  | 487.4  | 530.9  | 578.4  |
| 45°   | 339.4  | 381.5  | 438.6  | 476.6  | 516.0  |
| 47.5° | 294.6  | 329.9  | 391.0  | 422.3  | 457.6  |
| 50°   | 264.8  | 289.2  | 343.5  | 368.0  | 393.8  |
| 52.5° | 240.3  | 260.7  | 298.7  | 315.0  | 328.6  |
| 55°   | 215.9  | 237.6  | 260.7  | 262.1  | 259.3  |
| 57.5° | 191.4  | 215.9  | 228.1  | 218.6  | 224.0  |
| 60°   | 171.1  | 195.5  | 201.0  | 191.4  | 196.9  |
| 62.5° | 149.4  | 176.5  | 176.5  | 167.0  | 169.7  |
| 65°   | 131.7  | 156.1  | 152.1  | 143.9  | 145.3  |
| 67.5° | 114.1  | 138.5  | 131.7  | 123.6  | 123.6  |
| 70°   | 97.8   | 120.8  | 112.7  | 104.6  | 104.6  |
| 72.5° | 82.8   | 101.8  | 96.4   | 86.9   | 85.5   |
| 75°   | 69.2   | 85.5   | 78.8   | 70.6   | 69.2   |
| 77.5° | 55.7   | 69.2   | 63.8   | 57.0   | 54.3   |
| 80°   | 43.4   | 55.7   | 48.9   | 43.4   | 40.7   |
| 82.5° | 32.6   | 42.1   | 36.7   | 31.2   | 28.5   |
| 85°   | 21.7   | 28.5   | 25.8   | 20.4   | 17.7   |
| 87.5° | 10.9   | 19.0   | 16.3   | 13.6   | 10.9   |
| 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 | 17.66            | 19.10 | 18.02 | 19.41 | 19.72 | 17.90          | 19.34 | 18.27 | 19.66 | 19.97 |
|                 | 3H   | 19.19            | 20.47 | 19.56 | 20.80 | 21.16 | 19.26          | 20.55 | 19.64 | 20.88 | 21.24 |
|                 | 4H   | 19.75            | 20.95 | 20.15 | 21.30 | 21.68 | 19.74          | 20.95 | 20.15 | 21.30 | 21.68 |
|                 | 6H   | 20.17            | 21.28 | 20.58 | 21.65 | 22.04 | 20.09          | 21.20 | 20.51 | 21.57 | 21.96 |
|                 | 8H   | 20.32            | 21.38 | 20.75 | 21.77 | 22.17 | 20.20          | 21.26 | 20.63 | 21.65 | 22.05 |
|                 | 12H  | 20.44            | 21.45 | 20.87 | 21.83 | 22.26 | 20.27          | 21.28 | 20.70 | 21.66 | 22.09 |
| 4H              | 2H   | 18.23            | 19.44 | 18.63 | 19.78 | 20.16 | 18.43          | 19.63 | 18.83 | 19.98 | 20.36 |
|                 | 3H   | 20.03            | 21.03 | 20.45 | 21.43 | 21.84 | 20.00          | 21.00 | 20.42 | 21.40 | 21.81 |
|                 | 4H   | 20.77            | 21.67 | 21.21 | 22.09 | 22.53 | 20.60          | 21.50 | 21.03 | 21.91 | 22.35 |
|                 | 6H   | 21.36            | 22.14 | 21.82 | 22.59 | 23.05 | 21.07          | 21.85 | 21.53 | 22.29 | 22.75 |
|                 | 8H   | 21.57            | 22.30 | 22.04 | 22.75 | 23.21 | 21.22          | 21.94 | 21.68 | 22.39 | 22.86 |
|                 | 12H  | 21.74            | 22.39 | 22.22 | 22.87 | 23.34 | 21.32          | 21.97 | 21.81 | 22.45 | 22.93 |
| 8H              | 4H   | 21.04            | 21.77 | 21.51 | 22.21 | 22.68 | 20.89          | 21.62 | 21.35 | 22.06 | 22.53 |
|                 | 6H   | 21.80            | 22.40 | 22.29 | 22.89 | 23.37 | 21.48          | 22.08 | 21.98 | 22.57 | 23.05 |
|                 | 8H   | 22.12            | 22.66 | 22.64 | 23.17 | 23.66 | 21.70          | 22.24 | 22.22 | 22.75 | 23.24 |
|                 | 12H  | 22.40            | 22.88 | 22.91 | 23.37 | 23.94 | 21.88          | 22.36 | 22.39 | 22.85 | 23.42 |
| 12H             | 4H   | 21.05            | 21.70 | 21.54 | 22.18 | 22.66 | 20.92          | 21.57 | 21.41 | 22.05 | 22.52 |
|                 | 6H   | 21.84            | 22.38 | 22.36 | 22.89 | 23.38 | 21.55          | 22.09 | 22.06 | 22.60 | 23.09 |
|                 | 8H   | 22.24            | 22.72 | 22.75 | 23.21 | 23.78 | 21.83          | 22.31 | 22.34 | 22.80 | 23.37 |