

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: P1057815

Luminaire Tested: S122RDRP-S1005D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057815  
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-S1005D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

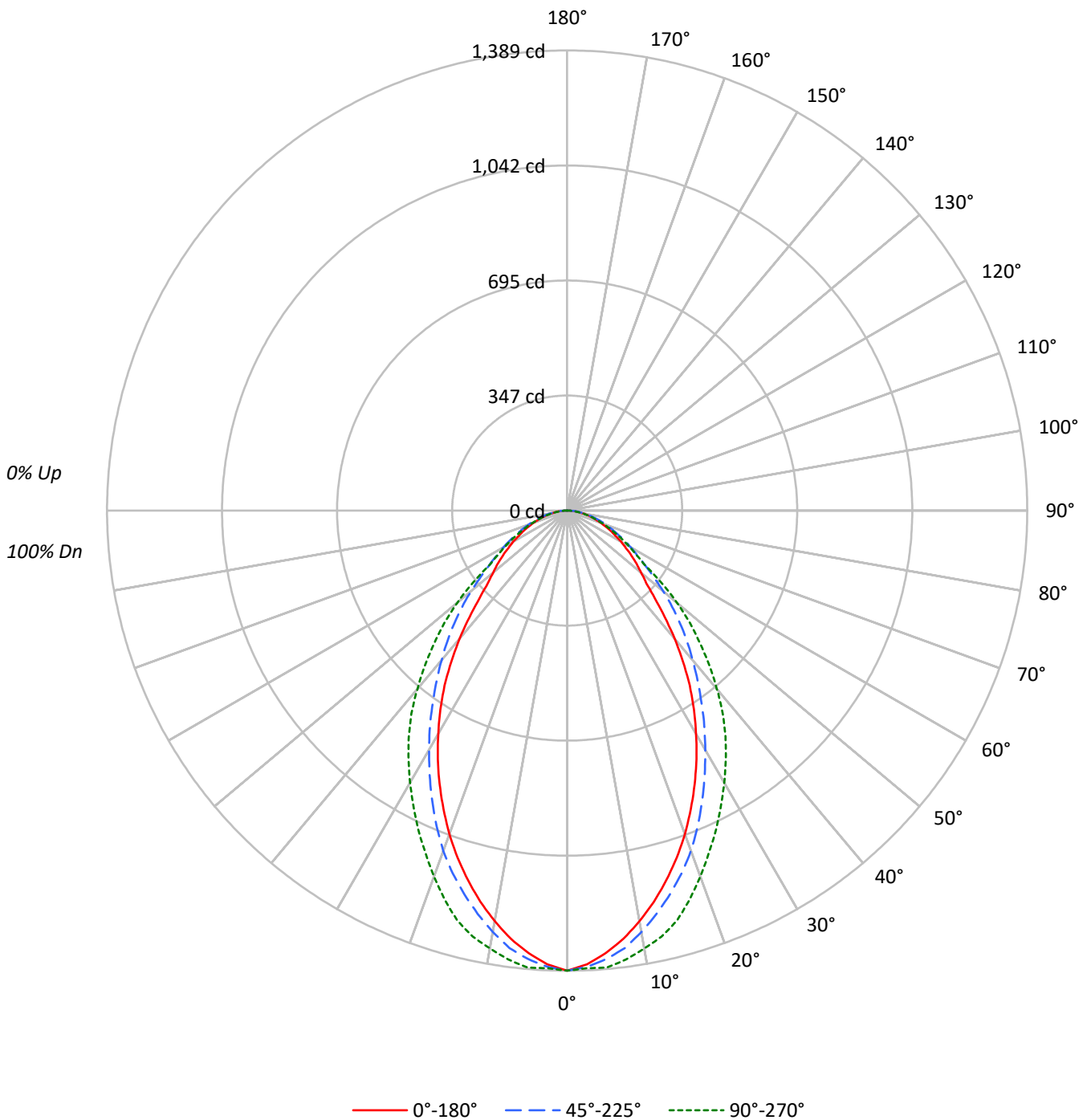
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2263.9 lumens  
Efficiency: N/A  
Efficacy: 54.2 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): 41.8  
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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 110 | 106 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |    |    |    |    | 87  |   |  |   |
| 2   | 102 | 95  | 89  | 84  | 100 | 93  | 88  | 83  | 90  | 85  | 81  | 87  | 83  | 80  | 84  | 81  | 78  | 76  |    |    |    |    | 76  |   |  |   |
| 3   | 94  | 85  | 78  | 73  | 92  | 84  | 77  | 72  | 81  | 75  | 71  | 78  | 74  | 70  | 76  | 72  | 68  | 67  |    |    |    |    | 67  |   |  |   |
| 4   | 88  | 77  | 69  | 64  | 85  | 76  | 69  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |    |    | 59  |   |  |   |
| 5   | 81  | 70  | 62  | 56  | 80  | 69  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 56  | 50  | 61  | 55  | 50  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |    |    |    |    | 47  |   |  |   |
| 7   | 71  | 59  | 51  | 46  | 69  | 58  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 44  | 43  |    |    |    |    | 43  |   |  |   |
| 8   | 67  | 54  | 47  | 41  | 65  | 54  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 50  | 45  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 9   | 63  | 50  | 43  | 38  | 61  | 50  | 43  | 38  | 49  | 42  | 38  | 48  | 42  | 37  | 47  | 41  | 37  | 36  |    |    |    |    | 36  |   |  |   |
| 10  | 59  | 47  | 40  | 35  | 58  | 46  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 44  | 38  | 34  | 33  |    |    |    |    | 33  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 25623 | 25623 | 25623 |
| 5°  | 24837 | 25169 | 25639 |
| 10° | 23584 | 24201 | 25151 |
| 15° | 22078 | 22905 | 24473 |
| 20° | 20406 | 21463 | 23075 |
| 25° | 18544 | 19639 | 21645 |
| 30° | 16575 | 17753 | 20203 |
| 35° | 14529 | 15910 | 18769 |
| 40° | 12157 | 14207 | 16941 |
| 45° | 9742  | 12586 | 14807 |
| 50° | 8359  | 10845 | 12430 |
| 55° | 7637  | 9223  | 9175  |
| 60° | 6942  | 8156  | 7990  |
| 65° | 6322  | 7300  | 6977  |
| 70° | 5800  | 6685  | 6204  |
| 75° | 5433  | 6174  | 5433  |
| 80° | 5079  | 5717  | 4761  |
| 85° | 5060  | 6013  | 4107  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14807 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 128.2  | 5.7       |
| 10°-20°   | 339.4  | 15.0      |
| 20°-30°   | 447.6  | 19.8      |
| 30°-40°   | 450.8  | 19.9      |
| 40°-50°   | 366.9  | 16.2      |
| 50°-60°   | 250.1  | 11.0      |
| 60°-70°   | 162.4  | 7.2       |
| 70°-80°   | 89.4   | 3.9       |
| 80°-90°   | 29.2   | 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°    | 915.2  | 40.4      |
| 0°-40°    | 1365.9 | 60.3      |
| 0°-60°    | 1982.9 | 87.6      |
| 0°-90°    | 2263.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2263.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1389 | 1389  | 1389 | 1389  | 1389 |      |
| 5°  | 1341 | 1366  | 1359 | 1371  | 1384 | 125  |
| 15° | 1156 | 1186  | 1199 | 1248  | 1281 | 324  |
| 25° | 911  | 941   | 965  | 1008  | 1063 | 418  |
| 35° | 645  | 678   | 706  | 768   | 833  | 401  |
| 45° | 373  | 420   | 482  | 524   | 567  | 294  |
| 55° | 237  | 261   | 287  | 288   | 285  | 213  |
| 65° | 145  | 172   | 167  | 158   | 160  | 144  |
| 75° | 76   | 94    | 87   | 78    | 76   | 81   |
| 85° | 24   | 31    | 28   | 22    | 19   | 26   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1388.6 | 1388.6 | 1388.6 | 1388.6 | 1388.6 |
| 2.5°  | 1370.7 | 1393.1 | 1378.2 | 1379.7 | 1382.7 |
| 5°    | 1340.9 | 1366.2 | 1358.8 | 1370.7 | 1384.2 |
| 7.5°  | 1303.5 | 1328.9 | 1331.9 | 1349.8 | 1366.2 |
| 10°   | 1258.7 | 1287.1 | 1291.6 | 1318.5 | 1342.3 |
| 12.5° | 1209.5 | 1240.8 | 1246.8 | 1285.6 | 1317.0 |
| 15°   | 1155.7 | 1185.6 | 1199.0 | 1248.3 | 1281.1 |
| 17.5° | 1099.0 | 1127.3 | 1148.2 | 1193.0 | 1230.4 |
| 20°   | 1039.2 | 1066.1 | 1093.0 | 1133.3 | 1175.1 |
| 22.5° | 975.0  | 1004.9 | 1030.3 | 1070.6 | 1118.4 |
| 25°   | 910.8  | 940.7  | 964.6  | 1007.9 | 1063.1 |
| 27.5° | 845.1  | 875.0  | 898.9  | 945.2  | 1004.9 |
| 30°   | 777.9  | 809.3  | 833.2  | 885.4  | 948.2  |
| 32.5° | 712.2  | 743.6  | 770.5  | 825.7  | 891.4  |
| 35°   | 645.0  | 677.9  | 706.3  | 767.5  | 833.2  |
| 37.5° | 573.4  | 610.7  | 646.5  | 707.8  | 772.0  |
| 40°   | 504.7  | 546.5  | 589.8  | 646.5  | 703.3  |
| 42.5° | 436.0  | 482.3  | 536.0  | 583.8  | 636.1  |
| 45°   | 373.3  | 419.6  | 482.3  | 524.1  | 567.4  |
| 47.5° | 324.0  | 362.8  | 430.0  | 464.4  | 503.2  |
| 50°   | 291.2  | 318.0  | 377.8  | 404.6  | 433.0  |
| 52.5° | 264.3  | 286.7  | 328.5  | 346.4  | 361.3  |
| 55°   | 237.4  | 261.3  | 286.7  | 288.2  | 285.2  |
| 57.5° | 210.5  | 237.4  | 250.8  | 240.4  | 246.4  |
| 60°   | 188.1  | 215.0  | 221.0  | 210.5  | 216.5  |
| 62.5° | 164.2  | 194.1  | 194.1  | 183.7  | 186.6  |
| 65°   | 144.8  | 171.7  | 167.2  | 158.3  | 159.8  |
| 67.5° | 125.4  | 152.3  | 144.8  | 135.9  | 135.9  |
| 70°   | 107.5  | 132.9  | 123.9  | 115.0  | 115.0  |
| 72.5° | 91.1   | 112.0  | 106.0  | 95.6   | 94.1   |
| 75°   | 76.2   | 94.1   | 86.6   | 77.6   | 76.2   |
| 77.5° | 61.2   | 76.2   | 70.2   | 62.7   | 59.7   |
| 80°   | 47.8   | 61.2   | 53.8   | 47.8   | 44.8   |
| 82.5° | 35.8   | 46.3   | 40.3   | 34.3   | 31.4   |
| 85°   | 23.9   | 31.4   | 28.4   | 22.4   | 19.4   |
| 87.5° | 11.9   | 20.9   | 17.9   | 14.9   | 11.9   |
| 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 | 17.99            | 19.43 | 18.35 | 19.74 | 20.05 | 18.24          | 19.67 | 18.60 | 19.99 | 20.30 |
|                 | 3H   | 19.52            | 20.80 | 19.89 | 21.13 | 21.49 | 19.59          | 20.88 | 19.97 | 21.21 | 21.57 |
|                 | 4H   | 20.08            | 21.28 | 20.48 | 21.63 | 22.01 | 20.08          | 21.28 | 20.48 | 21.63 | 22.01 |
|                 | 6H   | 20.50            | 21.61 | 20.92 | 21.98 | 22.37 | 20.42          | 21.54 | 20.84 | 21.90 | 22.30 |
|                 | 8H   | 20.65            | 21.71 | 21.08 | 22.10 | 22.50 | 20.53          | 21.59 | 20.96 | 21.98 | 22.38 |
|                 | 12H  | 20.77            | 21.78 | 21.20 | 22.16 | 22.59 | 20.60          | 21.61 | 21.03 | 21.99 | 22.42 |
| 4H              | 2H   | 18.56            | 19.76 | 18.96 | 20.11 | 20.49 | 18.76          | 19.96 | 19.16 | 20.31 | 20.69 |
|                 | 3H   | 20.36            | 21.36 | 20.77 | 21.76 | 22.16 | 20.33          | 21.33 | 20.75 | 21.73 | 22.14 |
|                 | 4H   | 21.11            | 22.00 | 21.54 | 22.42 | 22.86 | 20.93          | 21.83 | 21.36 | 22.24 | 22.68 |
|                 | 6H   | 21.69            | 22.47 | 22.15 | 22.92 | 23.38 | 21.40          | 22.18 | 21.86 | 22.62 | 23.08 |
|                 | 8H   | 21.90            | 22.63 | 22.37 | 23.08 | 23.55 | 21.55          | 22.28 | 22.01 | 22.72 | 23.19 |
|                 | 12H  | 22.07            | 22.72 | 22.55 | 23.20 | 23.67 | 21.66          | 22.30 | 22.14 | 22.78 | 23.26 |
| 8H              | 4H   | 21.37            | 22.10 | 21.84 | 22.55 | 23.01 | 21.22          | 21.95 | 21.68 | 22.39 | 22.86 |
|                 | 6H   | 22.13            | 22.73 | 22.63 | 23.22 | 23.70 | 21.81          | 22.41 | 22.31 | 22.90 | 23.38 |
|                 | 8H   | 22.45            | 22.99 | 22.97 | 23.50 | 23.99 | 22.03          | 22.57 | 22.55 | 23.08 | 23.57 |
|                 | 12H  | 22.73            | 23.21 | 23.25 | 23.70 | 24.27 | 22.21          | 22.69 | 22.73 | 23.18 | 23.75 |
| 12H             | 4H   | 21.39            | 22.03 | 21.87 | 22.51 | 22.99 | 21.25          | 21.90 | 21.74 | 22.38 | 22.85 |
|                 | 6H   | 22.17            | 22.71 | 22.69 | 23.22 | 23.71 | 21.88          | 22.42 | 22.39 | 22.93 | 23.42 |
|                 | 8H   | 22.57            | 23.05 | 23.08 | 23.54 | 24.11 | 22.16          | 22.64 | 22.67 | 23.13 | 23.70 |