

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: P1058020

Luminaire Tested: S122RDRP-S485D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058020  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

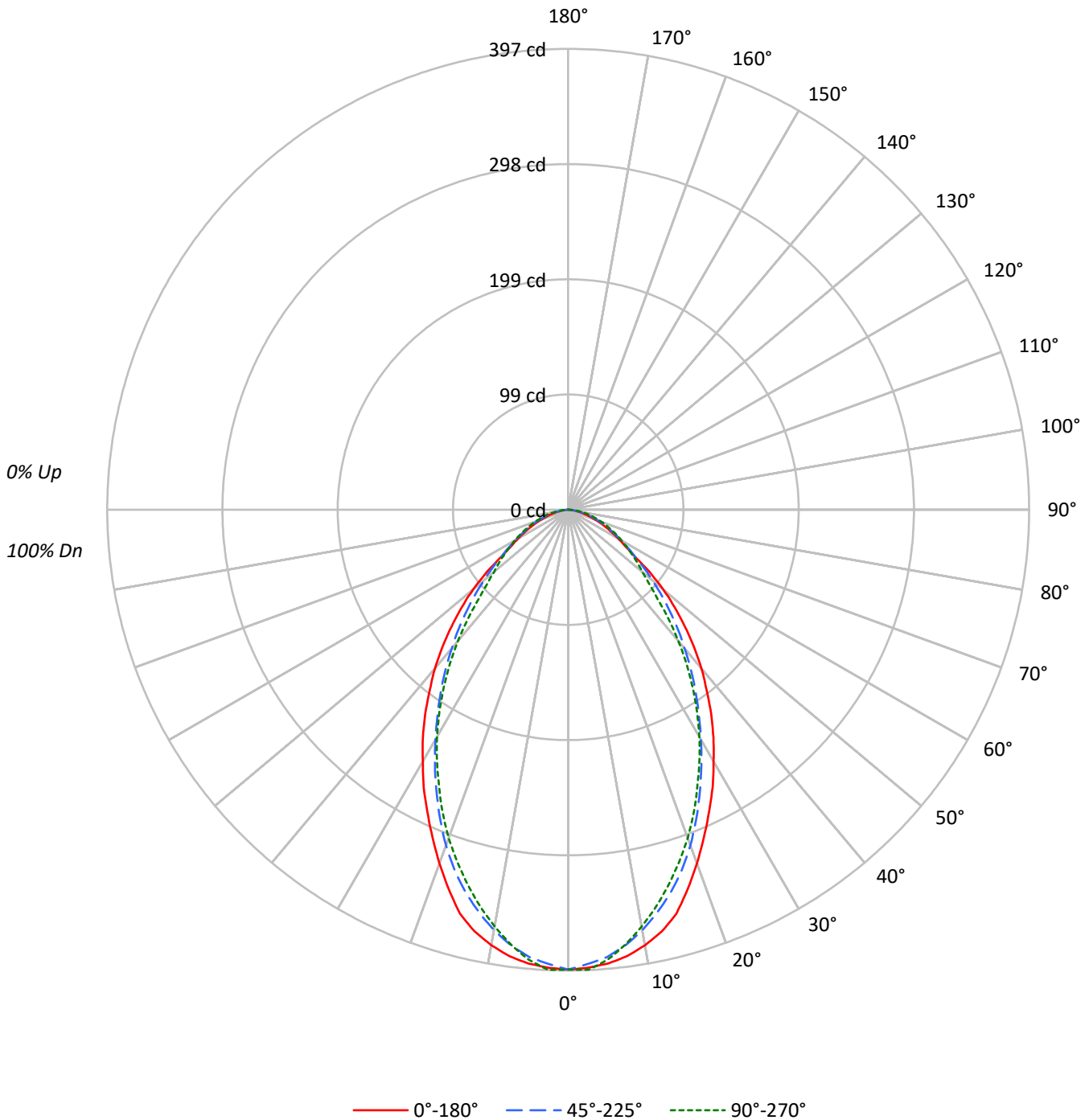
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 601.7 lumens  
Efficiency: N/A  
Efficacy: 30.7 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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   | 111 | 107 | 104 | 101 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |    |    |    |    | 88  |   |  |   |
| 2   | 103 | 96  | 91  | 86  | 100 | 94  | 89  | 85  | 91  | 87  | 83  | 88  | 84  | 81  | 85  | 82  | 79  | 77  |    |    |    |    | 77  |   |  |   |
| 3   | 95  | 87  | 80  | 74  | 93  | 85  | 79  | 74  | 82  | 77  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 68  |    |    |    |    | 68  |   |  |   |
| 4   | 89  | 79  | 71  | 65  | 87  | 77  | 70  | 65  | 75  | 69  | 64  | 73  | 68  | 63  | 71  | 66  | 63  | 61  |    |    |    |    | 61  |   |  |   |
| 5   | 83  | 72  | 64  | 58  | 81  | 71  | 63  | 58  | 69  | 62  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |    |    |    |    | 54  |   |  |   |
| 6   | 77  | 66  | 58  | 52  | 75  | 65  | 57  | 52  | 63  | 56  | 52  | 61  | 56  | 51  | 60  | 55  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 7   | 72  | 60  | 53  | 47  | 71  | 60  | 52  | 47  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 50  | 46  | 44  |    |    |    |    | 44  |   |  |   |
| 8   | 68  | 56  | 48  | 43  | 66  | 55  | 48  | 43  | 54  | 47  | 43  | 53  | 47  | 43  | 52  | 46  | 42  | 41  |    |    |    |    | 41  |   |  |   |
| 9   | 64  | 52  | 45  | 40  | 63  | 51  | 44  | 39  | 50  | 44  | 39  | 49  | 43  | 39  | 48  | 43  | 39  | 37  |    |    |    |    | 37  |   |  |   |
| 10  | 60  | 48  | 41  | 36  | 59  | 48  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 36  | 45  | 40  | 36  | 34  |    |    |    |    | 34  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7311 | 7311 | 7311 |
| 5°  | 7268 | 7163 | 7209 |
| 10° | 7139 | 6892 | 6832 |
| 15° | 6881 | 6520 | 6386 |
| 20° | 6366 | 6044 | 5909 |
| 25° | 5843 | 5459 | 5357 |
| 30° | 5335 | 4867 | 4811 |
| 35° | 4832 | 4305 | 4206 |
| 40° | 4300 | 3753 | 3555 |
| 45° | 3703 | 3225 | 2847 |
| 50° | 3060 | 2716 | 2391 |
| 55° | 2213 | 2252 | 2152 |
| 60° | 1838 | 1934 | 1956 |
| 65° | 1572 | 1681 | 1790 |
| 70° | 1295 | 1500 | 1635 |
| 75° | 1077 | 1262 | 1483 |
| 80° | 808  | 1010 | 1339 |
| 85° | 275  | 529  | 1207 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3703 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 36.6   | 6.1       |
| 10°-20°   | 96.4   | 16.0      |
| 20°-30°   | 124.8  | 20.7      |
| 30°-40°   | 122.4  | 20.3      |
| 40°-50°   | 96.4   | 16.0      |
| 50°-60°   | 63.2   | 10.5      |
| 60°-70°   | 38.5   | 6.4       |
| 70°-80°   | 19.2   | 3.2       |
| 80°-90°   | 4.1    | 0.7       |
| 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°    | 257.9  | 42.9      |
| 0°-40°    | 380.3  | 63.2      |
| 0°-60°    | 539.8  | 89.7      |
| 0°-90°    | 601.7  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 601.7  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 396 | 396   | 396 | 396   | 396 |      |
| 5°  | 392 | 392   | 387 | 389   | 389 | 37   |
| 15° | 360 | 355   | 341 | 337   | 334 | 100  |
| 25° | 287 | 278   | 268 | 267   | 263 | 132  |
| 35° | 214 | 202   | 191 | 190   | 187 | 134  |
| 45° | 142 | 133   | 124 | 115   | 109 | 109  |
| 55° | 69  | 72    | 70  | 68    | 67  | 65   |
| 65° | 36  | 37    | 38  | 40    | 41  | 36   |
| 75° | 15  | 16    | 18  | 20    | 21  | 16   |
| 85° | 1   | 2     | 2   | 4     | 6   | 3    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 396.2 | 396.2 | 396.2 | 396.2 | 396.2 |
| 2.5°  | 394.9 | 395.5 | 391.7 | 395.5 | 396.8 |
| 5°    | 392.4 | 392.4 | 386.7 | 389.2 | 389.2 |
| 7.5°  | 388.0 | 387.3 | 378.5 | 378.5 | 377.9 |
| 10°   | 381.0 | 378.5 | 367.8 | 365.9 | 364.6 |
| 12.5° | 372.2 | 367.8 | 355.2 | 352.0 | 350.1 |
| 15°   | 360.2 | 355.2 | 341.3 | 336.9 | 334.3 |
| 17.5° | 342.5 | 337.5 | 325.5 | 320.5 | 317.9 |
| 20°   | 324.2 | 316.7 | 307.8 | 303.4 | 300.9 |
| 22.5° | 305.3 | 296.5 | 288.3 | 285.1 | 282.6 |
| 25°   | 287.0 | 277.6 | 268.1 | 266.8 | 263.1 |
| 27.5° | 269.4 | 258.0 | 248.5 | 247.9 | 244.8 |
| 30°   | 250.4 | 238.5 | 228.4 | 229.0 | 225.8 |
| 32.5° | 232.8 | 221.4 | 209.4 | 210.1 | 206.3 |
| 35°   | 214.5 | 202.5 | 191.1 | 190.5 | 186.7 |
| 37.5° | 195.6 | 184.2 | 173.5 | 171.0 | 167.2 |
| 40°   | 178.5 | 167.2 | 155.8 | 151.4 | 147.6 |
| 42.5° | 160.2 | 150.1 | 140.0 | 133.1 | 128.1 |
| 45°   | 141.9 | 133.1 | 123.6 | 114.8 | 109.1 |
| 47.5° | 124.3 | 117.3 | 109.1 | 98.4  | 94.6  |
| 50°   | 106.6 | 101.6 | 94.6  | 85.2  | 83.3  |
| 52.5° | 88.3  | 86.4  | 82.0  | 75.7  | 75.1  |
| 55°   | 68.8  | 72.5  | 70.0  | 67.5  | 66.9  |
| 57.5° | 58.0  | 58.7  | 60.6  | 59.9  | 59.9  |
| 60°   | 49.8  | 49.8  | 52.4  | 53.0  | 53.0  |
| 62.5° | 42.3  | 42.9  | 45.4  | 46.7  | 46.7  |
| 65°   | 36.0  | 36.6  | 38.5  | 40.4  | 41.0  |
| 67.5° | 29.6  | 30.9  | 32.8  | 34.7  | 35.3  |
| 70°   | 24.0  | 25.2  | 27.8  | 29.6  | 30.3  |
| 72.5° | 19.6  | 20.2  | 22.7  | 24.6  | 25.2  |
| 75°   | 15.1  | 15.8  | 17.7  | 20.2  | 20.8  |
| 77.5° | 10.7  | 12.0  | 13.9  | 15.8  | 17.0  |
| 80°   | 7.6   | 8.2   | 9.5   | 12.0  | 12.6  |
| 82.5° | 4.4   | 5.0   | 6.3   | 8.2   | 8.8   |
| 85°   | 1.3   | 1.9   | 2.5   | 4.4   | 5.7   |
| 87.5° | 0.0   | 0.0   | 0.0   | 1.3   | 2.5   |
| 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 | 13.04            | 14.43 | 13.40 | 14.75 | 15.06 | 13.21          | 14.61 | 13.57 | 14.92 | 15.23 |
|                 | 3H   | 14.17            | 15.41 | 14.55 | 15.74 | 16.10 | 14.67          | 15.91 | 15.05 | 16.24 | 16.61 |
|                 | 4H   | 14.52            | 15.68 | 14.92 | 16.03 | 16.41 | 15.21          | 16.38 | 15.61 | 16.73 | 17.11 |
|                 | 6H   | 14.70            | 15.77 | 15.12 | 16.14 | 16.54 | 15.62          | 16.70 | 16.04 | 17.06 | 17.46 |
|                 | 8H   | 14.73            | 15.75 | 15.16 | 16.14 | 16.54 | 15.75          | 16.77 | 16.18 | 17.16 | 17.56 |
|                 | 12H  | 14.71            | 15.69 | 15.15 | 16.07 | 16.50 | 15.83          | 16.81 | 16.27 | 17.19 | 17.62 |
| 4H              | 2H   | 13.49            | 14.66 | 13.90 | 15.01 | 15.39 | 13.64          | 14.80 | 14.04 | 15.15 | 15.53 |
|                 | 3H   | 14.83            | 15.79 | 15.24 | 16.19 | 16.59 | 15.31          | 16.27 | 15.72 | 16.67 | 17.07 |
|                 | 4H   | 15.28            | 16.13 | 15.71 | 16.55 | 16.99 | 15.98          | 16.83 | 16.41 | 17.25 | 17.69 |
|                 | 6H   | 15.55            | 16.29 | 16.01 | 16.74 | 17.20 | 16.51          | 17.25 | 16.97 | 17.70 | 18.16 |
|                 | 8H   | 15.59            | 16.29 | 16.06 | 16.73 | 17.20 | 16.68          | 17.37 | 17.14 | 17.82 | 18.29 |
|                 | 12H  | 15.59            | 16.20 | 16.07 | 16.68 | 17.16 | 16.80          | 17.41 | 17.28 | 17.90 | 18.37 |
| 8H              | 4H   | 15.49            | 16.18 | 15.96 | 16.63 | 17.10 | 16.12          | 16.82 | 16.59 | 17.26 | 17.73 |
|                 | 6H   | 15.84            | 16.41 | 16.34 | 16.90 | 17.38 | 16.76          | 17.33 | 17.26 | 17.82 | 18.30 |
|                 | 8H   | 15.91            | 16.42 | 16.43 | 16.94 | 17.43 | 16.99          | 17.50 | 17.51 | 18.01 | 18.50 |
|                 | 12H  | 15.93            | 16.38 | 16.44 | 16.88 | 17.44 | 17.17          | 17.62 | 17.69 | 18.12 | 18.69 |
| 12H             | 4H   | 15.50            | 16.12 | 15.99 | 16.60 | 17.07 | 16.11          | 16.73 | 16.60 | 17.21 | 17.68 |
|                 | 6H   | 15.86            | 16.37 | 16.38 | 16.89 | 17.38 | 16.75          | 17.26 | 17.27 | 17.77 | 18.27 |
|                 | 8H   | 15.98            | 16.43 | 16.49 | 16.92 | 17.49 | 17.03          | 17.48 | 17.54 | 17.97 | 18.54 |