

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: P1057930

Luminaire Tested: S122RDRP-S290D935-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057930  
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-S290D935-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: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

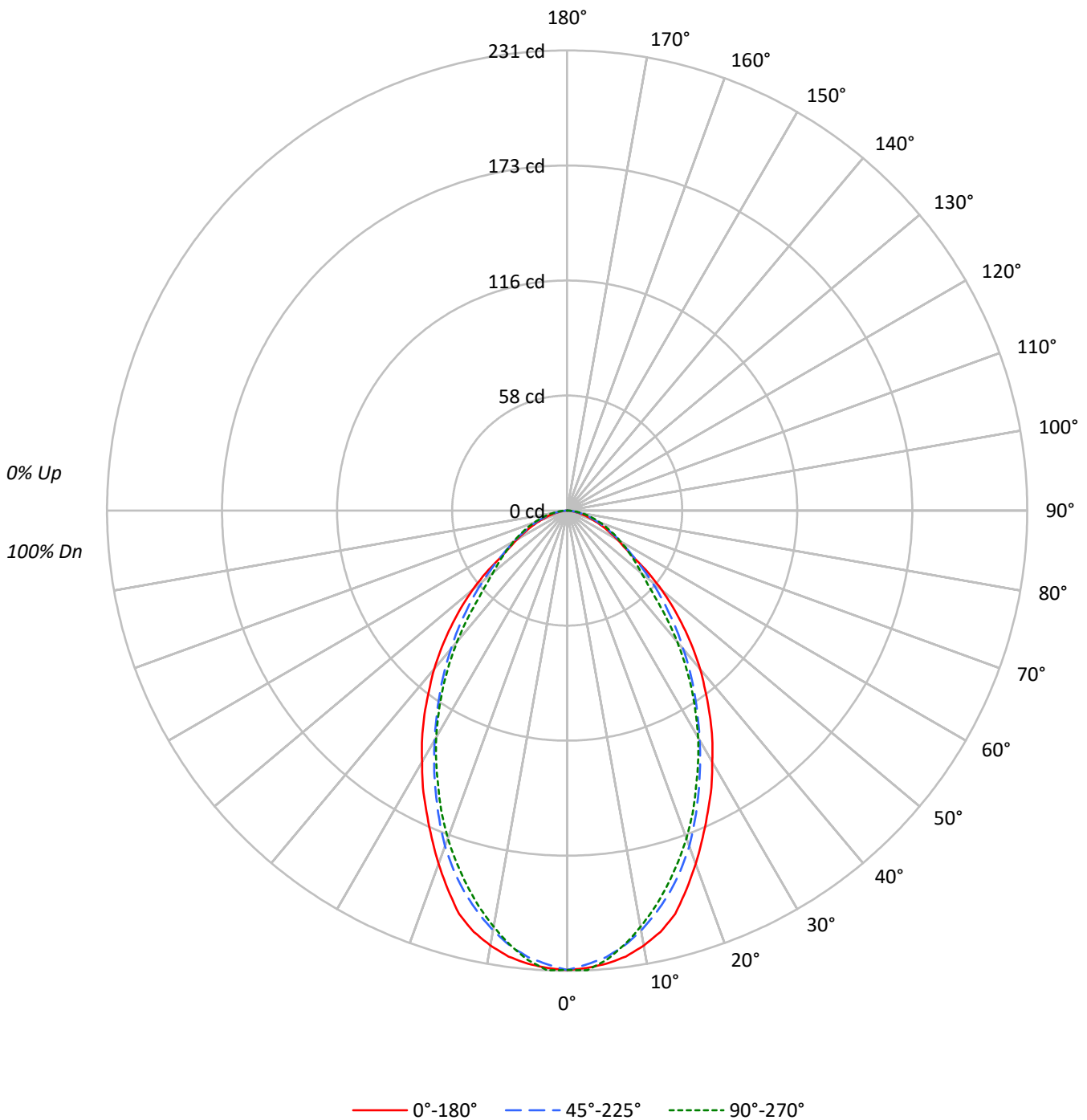
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 350.2 lumens  
Efficiency: N/A  
Efficacy: 28.0 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): 12.5  
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  | 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°  | 4255 | 4255 | 4255 |
| 5°  | 4229 | 4168 | 4195 |
| 10° | 4154 | 4010 | 3976 |
| 15° | 4004 | 3794 | 3718 |
| 20° | 3705 | 3519 | 3438 |
| 25° | 3400 | 3176 | 3117 |
| 30° | 3104 | 2832 | 2800 |
| 35° | 2811 | 2505 | 2449 |
| 40° | 2503 | 2185 | 2069 |
| 45° | 2156 | 1879 | 1657 |
| 50° | 1780 | 1582 | 1392 |
| 55° | 1287 | 1313 | 1251 |
| 60° | 1070 | 1126 | 1137 |
| 65° | 913  | 978  | 1044 |
| 70° | 755  | 874  | 950  |
| 75° | 627  | 734  | 863  |
| 80° | 468  | 584  | 776  |
| 85° | 148  | 318  | 699  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2156 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 21.3   | 6.1       |
| 10°-20°   | 56.1   | 16.0      |
| 20°-30°   | 72.6   | 20.7      |
| 30°-40°   | 71.2   | 20.3      |
| 40°-50°   | 56.1   | 16.0      |
| 50°-60°   | 36.8   | 10.5      |
| 60°-70°   | 22.4   | 6.4       |
| 70°-80°   | 11.2   | 3.2       |
| 80°-90°   | 2.4    | 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°    | 150.1  | 42.9      |
| 0°-40°    | 221.3  | 63.2      |
| 0°-60°    | 314.2  | 89.7      |
| 0°-90°    | 350.2  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 350.2  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 231 | 231   | 231 | 231   | 231 |      |
| 5°  | 228 | 228   | 225 | 226   | 226 | 22   |
| 15° | 210 | 207   | 199 | 196   | 195 | 58   |
| 25° | 167 | 162   | 156 | 155   | 153 | 77   |
| 35° | 125 | 118   | 111 | 111   | 109 | 78   |
| 45° | 83  | 78    | 72  | 67    | 64  | 64   |
| 55° | 40  | 42    | 41  | 39    | 39  | 38   |
| 65° | 21  | 21    | 22  | 24    | 24  | 21   |
| 75° | 9   | 9     | 10  | 12    | 12  | 9    |
| 85° | 1   | 1     | 2   | 3     | 3   | 1    |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 230.6 | 230.6 | 230.6 | 230.6 | 230.6 |
| 2.5°  | 229.8 | 230.2 | 228.0 | 230.2 | 230.9 |
| 5°    | 228.3 | 228.3 | 225.0 | 226.5 | 226.5 |
| 7.5°  | 225.8 | 225.4 | 220.3 | 220.3 | 219.9 |
| 10°   | 221.7 | 220.3 | 214.0 | 212.9 | 212.2 |
| 12.5° | 216.6 | 214.0 | 206.7 | 204.9 | 203.8 |
| 15°   | 209.6 | 206.7 | 198.6 | 196.0 | 194.6 |
| 17.5° | 199.3 | 196.4 | 189.4 | 186.5 | 185.0 |
| 20°   | 188.7 | 184.3 | 179.2 | 176.6 | 175.1 |
| 22.5° | 177.7 | 172.5 | 167.8 | 165.9 | 164.5 |
| 25°   | 167.0 | 161.5 | 156.0 | 155.3 | 153.1 |
| 27.5° | 156.8 | 150.2 | 144.6 | 144.3 | 142.4 |
| 30°   | 145.7 | 138.8 | 132.9 | 133.3 | 131.4 |
| 32.5° | 135.5 | 128.9 | 121.9 | 122.3 | 120.0 |
| 35°   | 124.8 | 117.8 | 111.2 | 110.9 | 108.7 |
| 37.5° | 113.8 | 107.2 | 101.0 | 99.5  | 97.3  |
| 40°   | 103.9 | 97.3  | 90.7  | 88.1  | 85.9  |
| 42.5° | 93.2  | 87.4  | 81.5  | 77.5  | 74.5  |
| 45°   | 82.6  | 77.5  | 72.0  | 66.8  | 63.5  |
| 47.5° | 72.3  | 68.3  | 63.5  | 57.3  | 55.1  |
| 50°   | 62.0  | 59.1  | 55.1  | 49.6  | 48.5  |
| 52.5° | 51.4  | 50.3  | 47.7  | 44.1  | 43.7  |
| 55°   | 40.0  | 42.2  | 40.8  | 39.3  | 38.9  |
| 57.5° | 33.8  | 34.1  | 35.2  | 34.9  | 34.9  |
| 60°   | 29.0  | 29.0  | 30.5  | 30.8  | 30.8  |
| 62.5° | 24.6  | 25.0  | 26.4  | 27.2  | 27.2  |
| 65°   | 20.9  | 21.3  | 22.4  | 23.5  | 23.9  |
| 67.5° | 17.3  | 18.0  | 19.1  | 20.2  | 20.6  |
| 70°   | 14.0  | 14.7  | 16.2  | 17.3  | 17.6  |
| 72.5° | 11.4  | 11.7  | 13.2  | 14.3  | 14.7  |
| 75°   | 8.8   | 9.2   | 10.3  | 11.7  | 12.1  |
| 77.5° | 6.2   | 7.0   | 8.1   | 9.2   | 9.9   |
| 80°   | 4.4   | 4.8   | 5.5   | 7.0   | 7.3   |
| 82.5° | 2.6   | 2.9   | 3.7   | 4.8   | 5.1   |
| 85°   | 0.7   | 1.1   | 1.5   | 2.6   | 3.3   |
| 87.5° | 0.0   | 0.0   | 0.0   | 0.7   | 1.5   |
| 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 | 11.15            | 12.54 | 11.51 | 12.86 | 13.17 | 11.34          | 12.73 | 11.70 | 13.05 | 13.36 |
|                 | 3H   | 12.28            | 13.53 | 12.66 | 13.86 | 14.22 | 12.80          | 14.04 | 13.18 | 14.37 | 14.73 |
|                 | 4H   | 12.64            | 13.80 | 13.04 | 14.15 | 14.53 | 13.34          | 14.50 | 13.74 | 14.85 | 15.23 |
|                 | 6H   | 12.82            | 13.89 | 13.23 | 14.26 | 14.65 | 13.75          | 14.82 | 14.16 | 15.19 | 15.58 |
|                 | 8H   | 12.85            | 13.86 | 13.28 | 14.25 | 14.66 | 13.87          | 14.89 | 14.30 | 15.28 | 15.68 |
|                 | 12H  | 12.83            | 13.80 | 13.26 | 14.19 | 14.62 | 13.96          | 14.93 | 14.39 | 15.31 | 15.74 |
| 4H              | 2H   | 11.61            | 12.77 | 12.01 | 13.12 | 13.50 | 11.76          | 12.93 | 12.16 | 13.27 | 13.66 |
|                 | 3H   | 12.95            | 13.91 | 13.36 | 14.31 | 14.71 | 13.44          | 14.39 | 13.85 | 14.80 | 15.20 |
|                 | 4H   | 13.39            | 14.25 | 13.83 | 14.67 | 15.11 | 14.10          | 14.96 | 14.53 | 15.37 | 15.82 |
|                 | 6H   | 13.67            | 14.41 | 14.13 | 14.85 | 15.32 | 14.63          | 15.37 | 15.09 | 15.82 | 16.28 |
|                 | 8H   | 13.71            | 14.41 | 14.18 | 14.85 | 15.32 | 14.80          | 15.49 | 15.26 | 15.94 | 16.41 |
|                 | 12H  | 13.71            | 14.32 | 14.19 | 14.80 | 15.28 | 14.92          | 15.53 | 15.40 | 16.02 | 16.49 |
| 8H              | 4H   | 13.61            | 14.30 | 14.08 | 14.75 | 15.22 | 14.25          | 14.94 | 14.71 | 15.39 | 15.86 |
|                 | 6H   | 13.96            | 14.53 | 14.46 | 15.02 | 15.50 | 14.88          | 15.45 | 15.38 | 15.94 | 16.42 |
|                 | 8H   | 14.03            | 14.54 | 14.55 | 15.06 | 15.55 | 15.11          | 15.62 | 15.63 | 16.13 | 16.63 |
|                 | 12H  | 14.05            | 14.50 | 14.56 | 14.99 | 15.56 | 15.30          | 15.75 | 15.81 | 16.24 | 16.81 |
| 12H             | 4H   | 13.62            | 14.24 | 14.11 | 14.72 | 15.19 | 14.23          | 14.85 | 14.72 | 15.33 | 15.80 |
|                 | 6H   | 13.98            | 14.49 | 14.50 | 15.01 | 15.50 | 14.87          | 15.38 | 15.39 | 15.90 | 16.39 |
|                 | 8H   | 14.10            | 14.55 | 14.61 | 15.04 | 15.61 | 15.15          | 15.60 | 15.66 | 16.09 | 16.66 |