

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: P1056377

Luminaire Tested: S125R3DR-S1090D935-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056377  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125R3DR-S1090D935-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

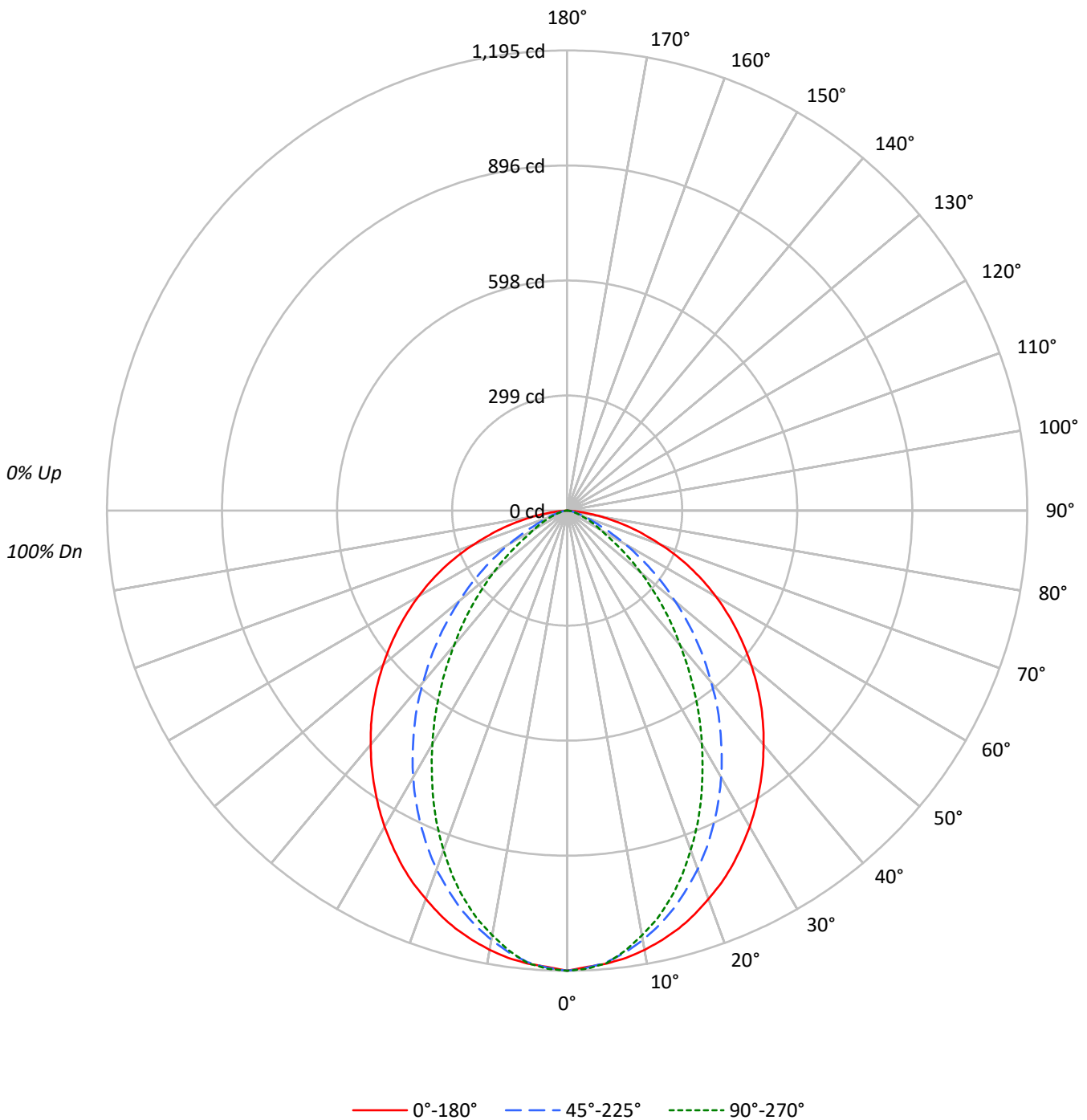
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2159.7 lumens  
Efficiency: N/A  
Efficacy: 62.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11  
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.7  
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   | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 92  | 90  | 88  |
| 2   | 102 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 90  | 86  | 82  | 87  | 84  | 80  | 84  | 81  | 79  | 77  |
| 3   | 95  | 86  | 79  | 73  | 92  | 84  | 78  | 73  | 81  | 76  | 71  | 79  | 74  | 70  | 76  | 72  | 69  | 67  |
| 4   | 88  | 77  | 70  | 64  | 86  | 76  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 59  |
| 5   | 81  | 70  | 62  | 56  | 79  | 69  | 61  | 56  | 67  | 60  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 52  |
| 6   | 76  | 64  | 56  | 50  | 74  | 63  | 55  | 50  | 61  | 54  | 49  | 60  | 54  | 49  | 58  | 53  | 49  | 47  |
| 7   | 71  | 58  | 50  | 45  | 69  | 58  | 50  | 45  | 56  | 49  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |
| 8   | 66  | 54  | 46  | 41  | 65  | 53  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 50  | 44  | 40  | 38  |
| 9   | 62  | 50  | 42  | 37  | 61  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 46  | 41  | 36  | 35  |
| 10  | 58  | 46  | 39  | 34  | 57  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 34  | 32  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8448 | 8448 | 8448 |
| 5°  | 8378 | 8354 | 8370 |
| 10° | 8315 | 8125 | 8038 |
| 15° | 8219 | 7830 | 7620 |
| 20° | 8074 | 7458 | 7059 |
| 25° | 7923 | 7016 | 6421 |
| 30° | 7740 | 6530 | 5717 |
| 35° | 7534 | 5977 | 4975 |
| 40° | 7321 | 5371 | 4207 |
| 45° | 7112 | 4735 | 3484 |
| 50° | 6863 | 4027 | 2737 |
| 55° | 6600 | 3272 | 1990 |
| 60° | 6304 | 2440 | 1424 |
| 65° | 5923 | 1611 | 1111 |
| 70° | 5351 | 1120 | 777  |
| 75° | 4654 | 727  | 604  |
| 80° | 3648 | 541  | 497  |
| 85° | 1882 | 446  | 357  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7112 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 111.3  | 5.2       |
| 10°-20°   | 302.6  | 14.0      |
| 20°-30°   | 418.4  | 19.4      |
| 30°-40°   | 443.3  | 20.5      |
| 40°-50°   | 386.9  | 17.9      |
| 50°-60°   | 275.2  | 12.7      |
| 60°-70°   | 153.0  | 7.1       |
| 70°-80°   | 58.8   | 2.7       |
| 80°-90°   | 10.2   | 0.5       |
| 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°    | 832.3  | 38.5      |
| 0°-40°    | 1275.6 | 59.1      |
| 0°-60°    | 1937.7 | 89.7      |
| 0°-90°    | 2159.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2159.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1195 | 1195  | 1195 | 1195  | 1195 |      |
| 5°  | 1181 | 1189  | 1177 | 1174  | 1180 | 112  |
| 15° | 1123 | 1113  | 1070 | 1047  | 1041 | 316  |
| 25° | 1016 | 981   | 900  | 844   | 823  | 468  |
| 35° | 873  | 813   | 693  | 608   | 576  | 546  |
| 45° | 711  | 626   | 474  | 378   | 348  | 548  |
| 55° | 536  | 429   | 266  | 184   | 162  | 479  |
| 65° | 354  | 232   | 96   | 71    | 66   | 350  |
| 75° | 170  | 66    | 27   | 22    | 22   | 181  |
| 85° | 23   | 7     | 6    | 4     | 4    | 34   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1195.0 | 1195.0 | 1195.0 | 1195.0 | 1195.0 |
| 2.5°  | 1186.1 | 1198.3 | 1188.3 | 1189.4 | 1190.5 |
| 5°    | 1180.6 | 1189.4 | 1177.2 | 1173.9 | 1179.5 |
| 7.5°  | 1171.7 | 1178.4 | 1157.3 | 1149.6 | 1152.9 |
| 10°   | 1158.4 | 1160.7 | 1131.9 | 1120.8 | 1119.7 |
| 12.5° | 1141.8 | 1138.5 | 1103.1 | 1085.4 | 1084.3 |
| 15°   | 1123.0 | 1113.1 | 1069.9 | 1046.7 | 1041.2 |
| 17.5° | 1099.8 | 1084.3 | 1031.2 | 1001.3 | 992.5  |
| 20°   | 1073.2 | 1052.2 | 991.4  | 952.6  | 938.3  |
| 22.5° | 1046.7 | 1017.9 | 947.1  | 898.4  | 882.9  |
| 25°   | 1015.7 | 981.4  | 899.5  | 844.2  | 823.2  |
| 27.5° | 982.5  | 941.6  | 850.9  | 786.7  | 761.2  |
| 30°   | 948.2  | 900.6  | 800.0  | 728.0  | 700.4  |
| 32.5° | 911.7  | 857.5  | 746.8  | 668.3  | 639.5  |
| 35°   | 873.0  | 813.2  | 692.6  | 608.5  | 576.5  |
| 37.5° | 834.3  | 767.9  | 639.5  | 549.9  | 516.7  |
| 40°   | 793.3  | 721.4  | 582.0  | 490.2  | 455.9  |
| 42.5° | 753.5  | 673.8  | 527.8  | 433.7  | 402.7  |
| 45°   | 711.4  | 626.2  | 473.6  | 378.4  | 348.5  |
| 47.5° | 668.3  | 576.5  | 419.3  | 326.4  | 296.5  |
| 50°   | 624.0  | 527.8  | 366.2  | 275.5  | 248.9  |
| 52.5° | 579.8  | 479.1  | 316.4  | 226.8  | 203.6  |
| 55°   | 535.5  | 429.3  | 265.5  | 183.7  | 161.5  |
| 57.5° | 491.3  | 380.6  | 218.0  | 143.8  | 123.9  |
| 60°   | 445.9  | 330.8  | 172.6  | 106.2  | 100.7  |
| 62.5° | 400.5  | 282.1  | 133.9  | 87.4   | 83.0   |
| 65°   | 354.1  | 232.4  | 96.3   | 70.8   | 66.4   |
| 67.5° | 307.6  | 187.0  | 69.7   | 54.2   | 50.9   |
| 70°   | 258.9  | 142.7  | 54.2   | 40.9   | 37.6   |
| 72.5° | 212.4  | 102.9  | 38.7   | 29.9   | 28.8   |
| 75°   | 170.4  | 66.4   | 26.6   | 22.1   | 22.1   |
| 77.5° | 128.3  | 39.8   | 18.8   | 16.6   | 16.6   |
| 80°   | 89.6   | 23.2   | 13.3   | 12.2   | 12.2   |
| 82.5° | 54.2   | 12.2   | 8.9    | 7.7    | 7.7    |
| 85°   | 23.2   | 6.6    | 5.5    | 4.4    | 4.4    |
| 87.5° | 4.4    | 2.2    | 2.2    | 2.2    | 2.2    |
| 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 | 18.58            | 20.02 | 18.94 | 20.33 | 20.65 | 11.21          | 12.66 | 11.58 | 12.97 | 13.28 |
|                 | 3H   | 20.13            | 21.42 | 20.51 | 21.75 | 22.11 | 11.78          | 13.06 | 12.15 | 13.39 | 13.75 |
|                 | 4H   | 20.66            | 21.86 | 21.06 | 22.21 | 22.59 | 11.90          | 13.10 | 12.30 | 13.45 | 13.83 |
|                 | 6H   | 20.99            | 22.10 | 21.41 | 22.47 | 22.86 | 11.96          | 13.07 | 12.38 | 13.44 | 13.83 |
|                 | 8H   | 21.08            | 22.13 | 21.50 | 22.52 | 22.92 | 11.97          | 13.02 | 12.40 | 13.41 | 13.81 |
|                 | 12H  | 21.10            | 22.10 | 21.53 | 22.49 | 22.92 | 11.96          | 12.96 | 12.39 | 13.35 | 13.78 |
| 4H              | 2H   | 18.47            | 19.67 | 18.87 | 20.02 | 20.40 | 11.78          | 12.98 | 12.18 | 13.33 | 13.71 |
|                 | 3H   | 20.14            | 21.13 | 20.55 | 21.53 | 21.93 | 12.45          | 13.44 | 12.86 | 13.84 | 14.24 |
|                 | 4H   | 20.69            | 21.57 | 21.12 | 21.99 | 22.43 | 12.61          | 13.49 | 13.04 | 13.91 | 14.35 |
|                 | 6H   | 21.08            | 21.84 | 21.54 | 22.29 | 22.75 | 12.72          | 13.48 | 13.18 | 13.93 | 14.39 |
|                 | 8H   | 21.18            | 21.90 | 21.65 | 22.34 | 22.81 | 12.73          | 13.44 | 13.20 | 13.89 | 14.36 |
|                 | 12H  | 21.23            | 21.86 | 21.72 | 22.35 | 22.82 | 12.73          | 13.36 | 13.22 | 13.85 | 14.32 |
| 8H              | 4H   | 20.59            | 21.30 | 21.06 | 21.75 | 22.22 | 12.88          | 13.59 | 13.34 | 14.03 | 14.50 |
|                 | 6H   | 20.98            | 21.56 | 21.48 | 22.06 | 22.54 | 13.01          | 13.60 | 13.51 | 14.09 | 14.57 |
|                 | 8H   | 21.08            | 21.61 | 21.60 | 22.12 | 22.61 | 13.04          | 13.56 | 13.56 | 14.08 | 14.57 |
|                 | 12H  | 21.15            | 21.61 | 21.66 | 22.11 | 22.67 | 13.06          | 13.52 | 13.57 | 14.02 | 14.58 |
| 12H             | 4H   | 20.55            | 21.19 | 21.04 | 21.67 | 22.14 | 12.89          | 13.52 | 13.38 | 14.01 | 14.48 |
|                 | 6H   | 20.92            | 21.45 | 21.44 | 21.96 | 22.45 | 13.02          | 13.55 | 13.54 | 14.06 | 14.55 |
|                 | 8H   | 21.05            | 21.52 | 21.56 | 22.01 | 22.58 | 13.08          | 13.54 | 13.59 | 14.04 | 14.61 |