

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: P1056413

Luminaire Tested: S125R3DR-S375D830-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056413  
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-S375D830-X4F0-XX-UDD-F-S  
Description: DEFINE 5, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

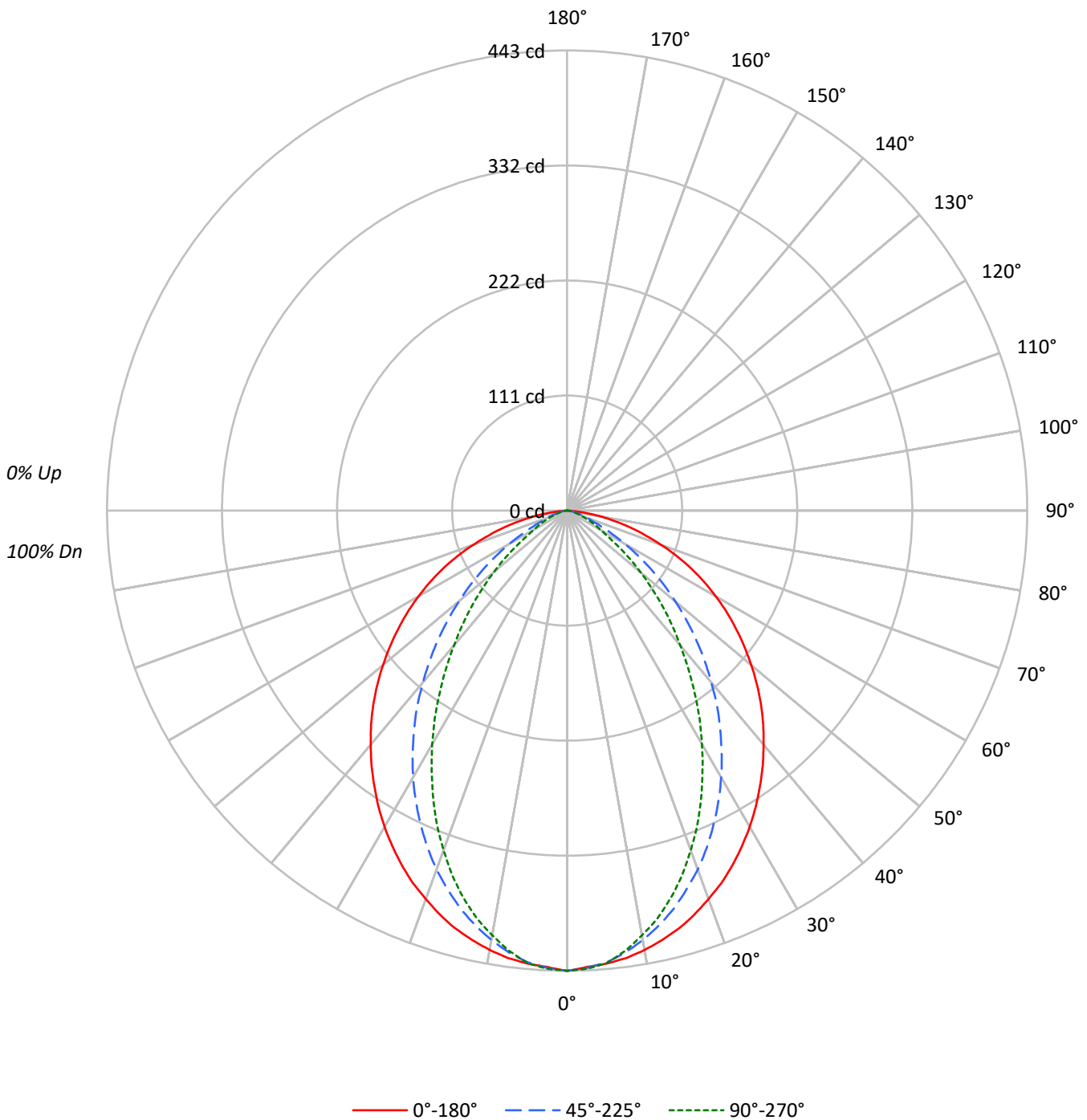
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 800.8 lumens  
Efficiency: N/A  
Efficacy: 63.6 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): 12.6  
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  | 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°  | 3132 | 3132 | 3132 |
| 5°  | 3106 | 3098 | 3103 |
| 10° | 3083 | 3013 | 2980 |
| 15° | 3048 | 2903 | 2825 |
| 20° | 2993 | 2765 | 2617 |
| 25° | 2938 | 2601 | 2381 |
| 30° | 2870 | 2421 | 2120 |
| 35° | 2794 | 2216 | 1844 |
| 40° | 2714 | 1991 | 1560 |
| 45° | 2637 | 1756 | 1292 |
| 50° | 2545 | 1494 | 1015 |
| 55° | 2448 | 1214 | 738  |
| 60° | 2337 | 905  | 527  |
| 65° | 2196 | 597  | 411  |
| 70° | 1984 | 415  | 287  |
| 75° | 1726 | 268  | 224  |
| 80° | 1352 | 199  | 183  |
| 85° | 698  | 170  | 130  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2637 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 41.3   | 5.2       |
| 10°-20°   | 112.2  | 14.0      |
| 20°-30°   | 155.1  | 19.4      |
| 30°-40°   | 164.4  | 20.5      |
| 40°-50°   | 143.5  | 17.9      |
| 50°-60°   | 102.0  | 12.7      |
| 60°-70°   | 56.7   | 7.1       |
| 70°-80°   | 21.8   | 2.7       |
| 80°-90°   | 3.8    | 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°    | 308.6  | 38.5      |
| 0°-40°    | 473.0  | 59.1      |
| 0°-60°    | 718.5  | 89.7      |
| 0°-90°    | 800.8  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 800.8  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 443 | 443   | 443 | 443   | 443 |      |
| 5°  | 438 | 441   | 436 | 435   | 437 | 42   |
| 15° | 416 | 413   | 397 | 388   | 386 | 117  |
| 25° | 377 | 364   | 334 | 313   | 305 | 173  |
| 35° | 324 | 302   | 257 | 226   | 214 | 202  |
| 45° | 264 | 232   | 176 | 140   | 129 | 203  |
| 55° | 199 | 159   | 98  | 68    | 60  | 178  |
| 65° | 131 | 86    | 36  | 26    | 25  | 130  |
| 75° | 63  | 25    | 10  | 8     | 8   | 67   |
| 85° | 9   | 2     | 2   | 2     | 2   | 13   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 443.1 | 443.1 | 443.1 | 443.1 | 443.1 |
| 2.5°  | 439.8 | 444.3 | 440.6 | 441.0 | 441.4 |
| 5°    | 437.7 | 441.0 | 436.5 | 435.3 | 437.3 |
| 7.5°  | 434.5 | 436.9 | 429.1 | 426.2 | 427.5 |
| 10°   | 429.5 | 430.4 | 419.7 | 415.6 | 415.2 |
| 12.5° | 423.4 | 422.1 | 409.0 | 402.5 | 402.0 |
| 15°   | 416.4 | 412.7 | 396.7 | 388.1 | 386.0 |
| 17.5° | 407.8 | 402.0 | 382.4 | 371.3 | 368.0 |
| 20°   | 397.9 | 390.1 | 367.6 | 353.2 | 347.9 |
| 22.5° | 388.1 | 377.4 | 351.2 | 333.1 | 327.4 |
| 25°   | 376.6 | 363.9 | 333.5 | 313.0 | 305.2 |
| 27.5° | 364.3 | 349.1 | 315.5 | 291.7 | 282.3 |
| 30°   | 351.6 | 333.9 | 296.6 | 269.9 | 259.7 |
| 32.5° | 338.0 | 317.9 | 276.9 | 247.8 | 237.1 |
| 35°   | 323.7 | 301.5 | 256.8 | 225.6 | 213.7 |
| 37.5° | 309.3 | 284.7 | 237.1 | 203.9 | 191.6 |
| 40°   | 294.1 | 267.5 | 215.8 | 181.7 | 169.0 |
| 42.5° | 279.4 | 249.8 | 195.7 | 160.8 | 149.3 |
| 45°   | 263.8 | 232.2 | 175.6 | 140.3 | 129.2 |
| 47.5° | 247.8 | 213.7 | 155.5 | 121.0 | 109.9 |
| 50°   | 231.4 | 195.7 | 135.8 | 102.2 | 92.3  |
| 52.5° | 215.0 | 177.6 | 117.3 | 84.1  | 75.5  |
| 55°   | 198.6 | 159.2 | 98.5  | 68.1  | 59.9  |
| 57.5° | 182.2 | 141.1 | 80.8  | 53.3  | 45.9  |
| 60°   | 165.3 | 122.7 | 64.0  | 39.4  | 37.3  |
| 62.5° | 148.5 | 104.6 | 49.6  | 32.4  | 30.8  |
| 65°   | 131.3 | 86.2  | 35.7  | 26.3  | 24.6  |
| 67.5° | 114.0 | 69.3  | 25.8  | 20.1  | 18.9  |
| 70°   | 96.0  | 52.9  | 20.1  | 15.2  | 13.9  |
| 72.5° | 78.8  | 38.2  | 14.4  | 11.1  | 10.7  |
| 75°   | 63.2  | 24.6  | 9.8   | 8.2   | 8.2   |
| 77.5° | 47.6  | 14.8  | 7.0   | 6.2   | 6.2   |
| 80°   | 33.2  | 8.6   | 4.9   | 4.5   | 4.5   |
| 82.5° | 20.1  | 4.5   | 3.3   | 2.9   | 2.9   |
| 85°   | 8.6   | 2.5   | 2.1   | 1.6   | 1.6   |
| 87.5° | 1.6   | 0.8   | 0.8   | 0.8   | 0.8   |
| 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 | 15.13            | 16.57 | 15.49 | 16.89 | 17.20 | 7.76           | 9.21  | 8.13  | 9.52  | 9.83  |
|                 | 3H   | 16.69            | 17.97 | 17.06 | 18.30 | 18.66 | 8.33           | 9.61  | 8.70  | 9.94  | 10.30 |
|                 | 4H   | 17.21            | 18.41 | 17.61 | 18.76 | 19.14 | 8.45           | 9.65  | 8.85  | 10.00 | 10.38 |
|                 | 6H   | 17.55            | 18.65 | 17.96 | 19.02 | 19.41 | 8.52           | 9.62  | 8.93  | 9.99  | 10.39 |
|                 | 8H   | 17.63            | 18.68 | 18.06 | 19.07 | 19.47 | 8.52           | 9.57  | 8.95  | 9.96  | 10.37 |
|                 | 12H  | 17.65            | 18.66 | 18.08 | 19.04 | 19.47 | 8.51           | 9.52  | 8.94  | 9.90  | 10.33 |
| 4H              | 2H   | 15.02            | 16.23 | 15.43 | 16.58 | 16.96 | 8.33           | 9.53  | 8.73  | 9.88  | 10.26 |
|                 | 3H   | 16.69            | 17.68 | 17.10 | 18.08 | 18.48 | 9.00           | 9.99  | 9.41  | 10.39 | 10.79 |
|                 | 4H   | 17.24            | 18.12 | 17.67 | 18.54 | 18.98 | 9.16           | 10.04 | 9.59  | 10.46 | 10.90 |
|                 | 6H   | 17.63            | 18.40 | 18.09 | 18.84 | 19.30 | 9.27           | 10.04 | 9.73  | 10.48 | 10.94 |
|                 | 8H   | 17.74            | 18.45 | 18.20 | 18.90 | 19.36 | 9.28           | 10.00 | 9.75  | 10.44 | 10.91 |
|                 | 12H  | 17.78            | 18.42 | 18.27 | 18.90 | 19.37 | 9.29           | 9.92  | 9.77  | 10.40 | 10.87 |
| 8H              | 4H   | 17.14            | 17.86 | 17.61 | 18.30 | 18.77 | 9.43           | 10.14 | 9.90  | 10.59 | 11.06 |
|                 | 6H   | 17.53            | 18.11 | 18.03 | 18.61 | 19.09 | 9.56           | 10.15 | 10.06 | 10.64 | 11.12 |
|                 | 8H   | 17.64            | 18.16 | 18.16 | 18.67 | 19.16 | 9.59           | 10.12 | 10.11 | 10.63 | 11.12 |
|                 | 12H  | 17.70            | 18.16 | 18.21 | 18.66 | 19.23 | 9.61           | 10.08 | 10.13 | 10.57 | 11.14 |
| 12H             | 4H   | 17.11            | 17.74 | 17.59 | 18.22 | 18.69 | 9.44           | 10.08 | 9.93  | 10.56 | 11.03 |
|                 | 6H   | 17.48            | 18.00 | 17.99 | 18.51 | 19.01 | 9.58           | 10.10 | 10.09 | 10.61 | 11.10 |
|                 | 8H   | 17.61            | 18.07 | 18.12 | 18.56 | 19.13 | 9.64           | 10.10 | 10.15 | 10.59 | 11.16 |