

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: P1175367

Luminaire Tested: S125RDRP-S375D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/18/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1175367  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/18/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S375D840-X4F0-XX-UDD-WVL-W  
Description: DEFINE 5 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**

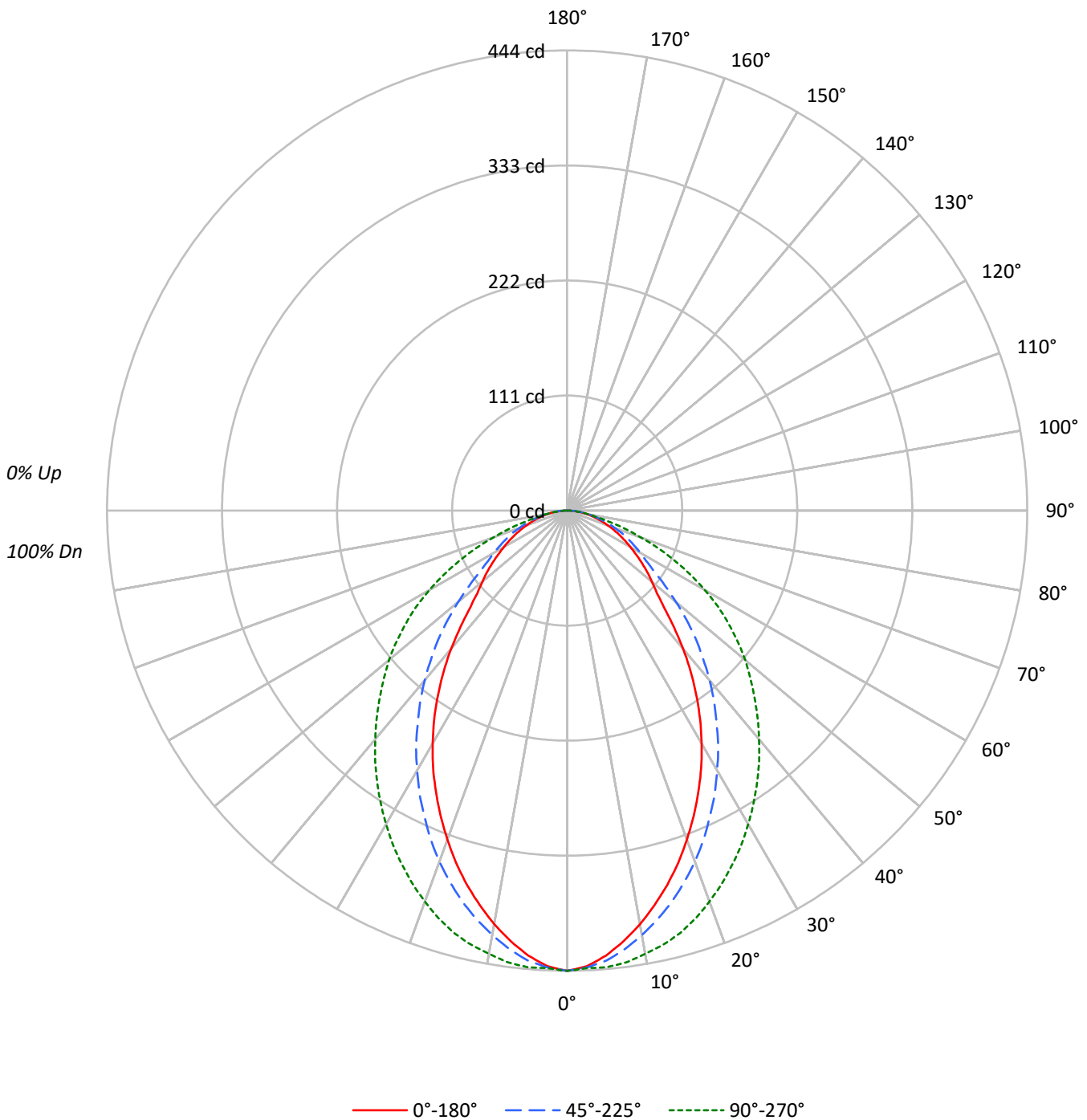
Lumens per Lamp: N/A  
Luminaire Lumens: 836.7 lumens  
Efficiency: N/A  
Efficacy: 66.9 lumens/watt  
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct

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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 86  | 82  | 89  | 84  | 80  | 85  | 81  | 78  | 82  | 79  | 76  |
| 3   | 93  | 84  | 76  | 71  | 91  | 82  | 75  | 70  | 79  | 73  | 69  | 77  | 72  | 68  | 74  | 70  | 66  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 61  | 72  | 65  | 60  | 69  | 64  | 59  | 67  | 62  | 58  |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 52  |
| 6   | 74  | 62  | 54  | 48  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 46  |
| 7   | 69  | 57  | 48  | 43  | 68  | 56  | 48  | 43  | 54  | 47  | 42  | 53  | 47  | 42  | 52  | 46  | 42  |
| 8   | 65  | 52  | 44  | 39  | 63  | 51  | 44  | 39  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  |
| 9   | 61  | 48  | 40  | 35  | 59  | 48  | 40  | 35  | 46  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 41  | 36  | 32  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3058 | 3058 | 3058 |
| 5°  | 2978 | 3012 | 3056 |
| 10° | 2834 | 2907 | 3036 |
| 15° | 2663 | 2784 | 3007 |
| 20° | 2475 | 2641 | 2942 |
| 25° | 2275 | 2474 | 2864 |
| 30° | 2062 | 2299 | 2779 |
| 35° | 1826 | 2114 | 2687 |
| 40° | 1566 | 1922 | 2589 |
| 45° | 1285 | 1711 | 2489 |
| 50° | 1143 | 1470 | 2403 |
| 55° | 1054 | 1230 | 2281 |
| 60° | 971  | 1121 | 2112 |
| 65° | 903  | 1056 | 1867 |
| 70° | 841  | 986  | 1526 |
| 75° | 793  | 912  | 1144 |
| 80° | 749  | 837  | 821  |
| 85° | 687  | 837  | 687  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 2489 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 41.1   | 4.9       |
| 10°-20°   | 110.8  | 13.2      |
| 20°-30°   | 152.5  | 18.2      |
| 30°-40°   | 161.7  | 19.3      |
| 40°-50°   | 141.5  | 16.9      |
| 50°-60°   | 108.6  | 13.0      |
| 60°-70°   | 72.3   | 8.6       |
| 70°-80°   | 37.1   | 4.4       |
| 80°-90°   | 11.0   | 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°    | 304.4  | 36.4      |
| 0°-40°    | 466.1  | 55.7      |
| 0°-60°    | 716.3  | 85.6      |
| 0°-90°    | 836.7  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 836.7  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 444 | 444   | 444 | 444   | 444 |      |
| 5°  | 431 | 437   | 436 | 439   | 442 | 40   |
| 15° | 374 | 382   | 391 | 409   | 422 | 105  |
| 25° | 299 | 310   | 326 | 353   | 377 | 137  |
| 35° | 217 | 227   | 252 | 288   | 320 | 135  |
| 45° | 132 | 143   | 176 | 219   | 256 | 104  |
| 55° | 88  | 90    | 102 | 152   | 190 | 79   |
| 65° | 55  | 56    | 65  | 85    | 115 | 55   |
| 75° | 30  | 32    | 34  | 36    | 43  | 32   |
| 85° | 9   | 10    | 11  | 10    | 9   | 10   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 444.1 | 444.1 | 444.1 | 444.1 | 444.1 |
| 2.5°  | 440.0 | 444.5 | 441.1 | 441.5 | 441.9 |
| 5°    | 430.9 | 436.6 | 435.8 | 438.8 | 442.2 |
| 7.5°  | 418.9 | 424.9 | 426.8 | 434.3 | 439.6 |
| 10°   | 405.3 | 412.1 | 415.8 | 427.2 | 434.3 |
| 12.5° | 389.8 | 397.8 | 403.8 | 418.5 | 429.0 |
| 15°   | 373.6 | 382.3 | 390.6 | 409.1 | 421.9 |
| 17.5° | 356.3 | 365.0 | 375.9 | 397.0 | 412.5 |
| 20°   | 337.8 | 347.2 | 360.4 | 383.0 | 401.5 |
| 22.5° | 319.0 | 328.8 | 343.8 | 368.7 | 389.8 |
| 25°   | 299.4 | 309.5 | 325.7 | 353.3 | 377.0 |
| 27.5° | 280.1 | 289.5 | 308.4 | 337.8 | 363.8 |
| 30°   | 259.4 | 269.2 | 289.2 | 321.6 | 349.5 |
| 32.5° | 238.7 | 248.5 | 271.5 | 305.4 | 334.8 |
| 35°   | 217.2 | 227.3 | 251.5 | 288.4 | 319.7 |
| 37.5° | 195.7 | 206.2 | 233.0 | 271.1 | 304.3 |
| 40°   | 174.2 | 185.5 | 213.8 | 253.7 | 288.0 |
| 42.5° | 152.3 | 164.4 | 194.2 | 236.8 | 272.2 |
| 45°   | 132.0 | 142.9 | 175.7 | 219.4 | 255.6 |
| 47.5° | 117.3 | 123.7 | 156.1 | 201.7 | 239.8 |
| 50°   | 106.7 | 109.7 | 137.2 | 184.7 | 224.3 |
| 52.5° | 97.3  | 99.2  | 118.8 | 168.9 | 207.4 |
| 55°   | 87.8  | 89.7  | 102.5 | 152.3 | 190.0 |
| 57.5° | 78.8  | 79.9  | 90.5  | 135.7 | 172.7 |
| 60°   | 70.5  | 71.3  | 81.4  | 119.1 | 153.4 |
| 62.5° | 63.0  | 63.3  | 72.8  | 102.2 | 134.2 |
| 65°   | 55.4  | 55.8  | 64.8  | 85.2  | 114.6 |
| 67.5° | 48.6  | 48.6  | 57.3  | 69.7  | 95.8  |
| 70°   | 41.8  | 41.8  | 49.0  | 56.6  | 75.8  |
| 72.5° | 35.8  | 36.6  | 41.5  | 45.6  | 59.2  |
| 75°   | 29.8  | 31.7  | 34.3  | 36.2  | 43.0  |
| 77.5° | 24.1  | 26.4  | 27.5  | 28.3  | 28.7  |
| 80°   | 18.9  | 20.4  | 21.1  | 21.5  | 20.7  |
| 82.5° | 13.9  | 15.1  | 15.5  | 15.5  | 14.3  |
| 85°   | 8.7   | 9.8   | 10.6  | 10.2  | 8.7   |
| 87.5° | 4.1   | 5.7   | 6.0   | 5.3   | 4.1   |
| 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 | 10.50            | 12.00 | 10.86 | 12.31 | 12.62 | 14.52          | 16.02 | 14.89 | 16.33 | 16.65 |
|                 | 3H   | 12.08            | 13.43 | 12.46 | 13.75 | 14.12 | 15.91          | 17.26 | 16.29 | 17.58 | 17.95 |
|                 | 4H   | 12.73            | 13.99 | 13.13 | 14.34 | 14.72 | 16.32          | 17.58 | 16.72 | 17.93 | 18.31 |
|                 | 6H   | 13.24            | 14.40 | 13.65 | 14.77 | 15.16 | 16.52          | 17.69 | 16.94 | 18.05 | 18.45 |
|                 | 8H   | 13.42            | 14.53 | 13.84 | 14.92 | 15.32 | 16.58          | 17.69 | 17.01 | 18.08 | 18.48 |
|                 | 12H  | 13.54            | 14.60 | 13.97 | 14.99 | 15.42 | 16.61          | 17.67 | 17.04 | 18.06 | 18.49 |
| 4H              | 2H   | 11.27            | 12.53 | 11.67 | 12.88 | 13.25 | 14.65          | 15.91 | 15.05 | 16.26 | 16.64 |
|                 | 3H   | 13.05            | 14.09 | 13.46 | 14.49 | 14.90 | 16.22          | 17.27 | 16.63 | 17.67 | 18.07 |
|                 | 4H   | 13.82            | 14.76 | 14.25 | 15.17 | 15.61 | 16.73          | 17.67 | 17.17 | 18.09 | 18.53 |
|                 | 6H   | 14.46            | 15.28 | 14.92 | 15.72 | 16.18 | 17.06          | 17.88 | 17.52 | 18.32 | 18.78 |
|                 | 8H   | 14.69            | 15.45 | 15.15 | 15.90 | 16.36 | 17.16          | 17.92 | 17.62 | 18.37 | 18.84 |
|                 | 12H  | 14.86            | 15.54 | 15.34 | 16.02 | 16.49 | 17.23          | 17.92 | 17.71 | 18.39 | 18.87 |
| 8H              | 4H   | 14.20            | 14.97 | 14.66 | 15.41 | 15.88 | 16.83          | 17.60 | 17.30 | 18.04 | 18.51 |
|                 | 6H   | 14.98            | 15.61 | 15.48 | 16.10 | 16.58 | 17.25          | 17.88 | 17.75 | 18.38 | 18.85 |
|                 | 8H   | 15.30            | 15.86 | 15.81 | 16.37 | 16.86 | 17.41          | 17.98 | 17.93 | 18.49 | 18.98 |
|                 | 12H  | 15.56            | 16.06 | 16.07 | 16.55 | 17.12 | 17.55          | 18.05 | 18.06 | 18.54 | 19.11 |
| 12H             | 4H   | 14.24            | 14.92 | 14.72 | 15.40 | 15.87 | 16.83          | 17.52 | 17.31 | 17.99 | 18.47 |
|                 | 6H   | 15.05            | 15.62 | 15.57 | 16.13 | 16.62 | 17.26          | 17.83 | 17.78 | 18.34 | 18.83 |
|                 | 8H   | 15.44            | 15.94 | 15.95 | 16.43 | 17.00 | 17.48          | 17.98 | 17.99 | 18.47 | 19.03 |