

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1061940

Luminaire Tested: S125RDR-H1270D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

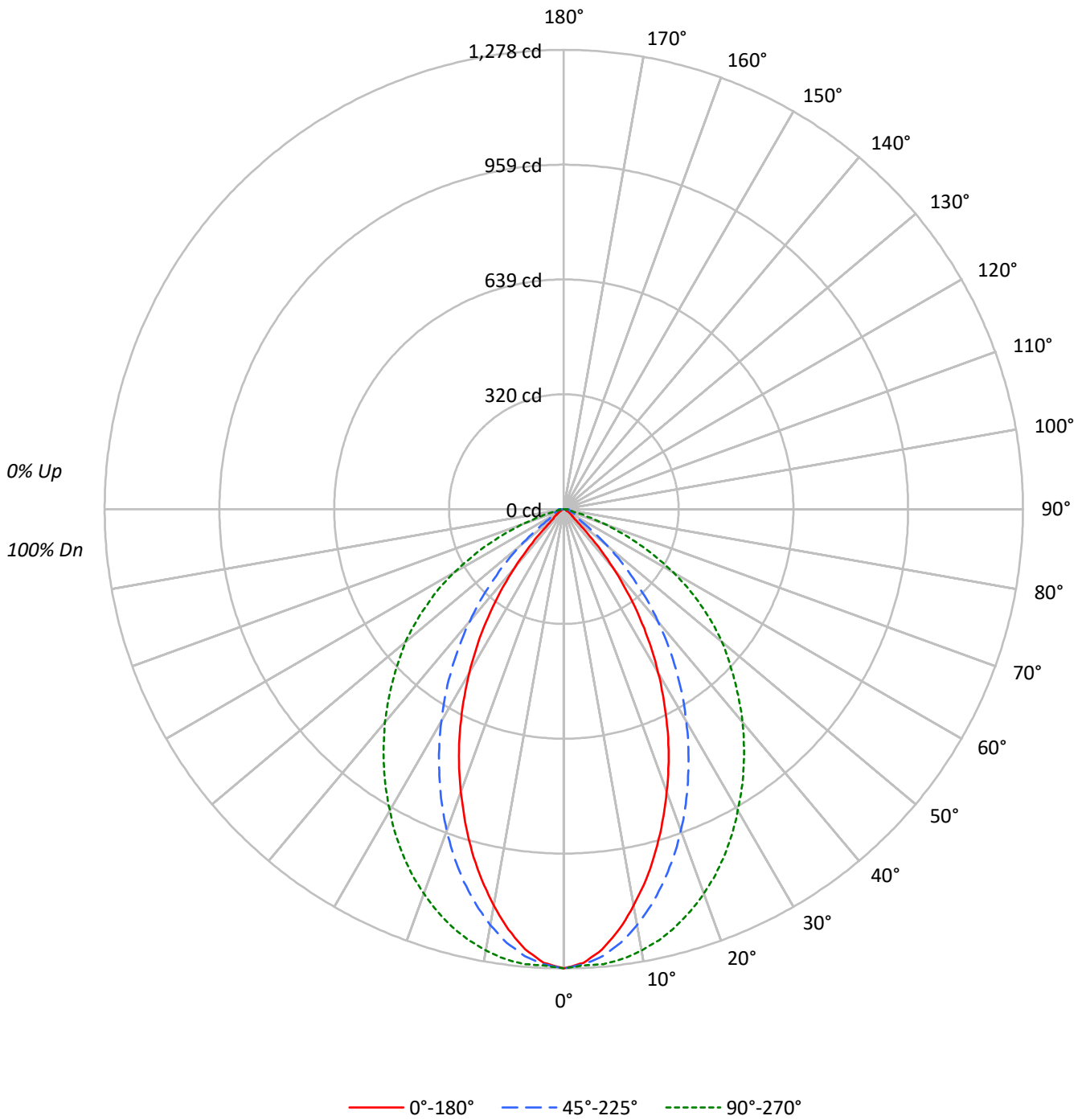
Test Method: LM-79-2019  
Report Number: P1061940  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1270D840-X4F0-XX-UDD-BVL-W  
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1653.5 lumens  
Efficiency: N/A  
Efficacy: 45.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98  
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
Input Voltage (V): 120  
Input Current (Ain): 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 | 0  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |   |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |    |   |
| 2   | 104 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 85  | 82  | 80  |    |    |    |   |
| 3   | 98  | 89  | 83  | 78  | 95  | 88  | 82  | 78  | 85  | 80  | 76  | 83  | 79  | 75  | 80  | 77  | 74  | 72  |    |    |    |   |
| 4   | 91  | 82  | 75  | 70  | 89  | 81  | 74  | 69  | 78  | 73  | 68  | 76  | 71  | 67  | 74  | 70  | 67  | 65  |    |    |    |   |
| 5   | 85  | 75  | 68  | 63  | 83  | 74  | 67  | 62  | 72  | 66  | 62  | 70  | 65  | 61  | 69  | 64  | 60  | 59  |    |    |    |   |
| 6   | 80  | 69  | 62  | 57  | 78  | 68  | 61  | 56  | 67  | 60  | 56  | 65  | 60  | 56  | 64  | 59  | 55  | 53  |    |    |    |   |
| 7   | 75  | 64  | 57  | 52  | 74  | 63  | 56  | 51  | 62  | 56  | 51  | 60  | 55  | 51  | 59  | 54  | 50  | 49  |    |    |    |   |
| 8   | 71  | 59  | 52  | 47  | 69  | 59  | 52  | 47  | 58  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 46  | 45  |    |    |    |   |
| 9   | 67  | 55  | 48  | 44  | 65  | 55  | 48  | 44  | 54  | 48  | 43  | 53  | 47  | 43  | 52  | 47  | 43  | 41  |    |    |    |   |
| 10  | 63  | 52  | 45  | 40  | 62  | 51  | 45  | 40  | 50  | 44  | 40  | 49  | 44  | 40  | 49  | 44  | 40  | 38  |    |    |    |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8799 | 8799 | 8799 |
| 5°  | 8500 | 8627 | 8784 |
| 10° | 7833 | 8221 | 8717 |
| 15° | 7035 | 7652 | 8574 |
| 20° | 6139 | 6981 | 8345 |
| 25° | 5200 | 6225 | 8059 |
| 30° | 4177 | 5419 | 7700 |
| 35° | 3091 | 4572 | 7340 |
| 40° | 1914 | 3650 | 6956 |
| 45° | 747  | 2669 | 6540 |
| 50° | 350  | 1673 | 6160 |
| 55° | 256  | 715  | 5591 |
| 60° | 176  | 508  | 4850 |
| 65° | 116  | 533  | 3772 |
| 70° | 115  | 485  | 2373 |
| 75° | 152  | 492  | 756  |
| 80° | 226  | 563  | 508  |
| 85° | 340  | 1122 | 782  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6540 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 117.2  | 7.1       |
| 10°-20°   | 303.7  | 18.4      |
| 20°-30°   | 386.8  | 23.4      |
| 30°-40°   | 360.0  | 21.8      |
| 40°-50°   | 247.8  | 15.0      |
| 50°-60°   | 140.3  | 8.5       |
| 60°-70°   | 66.3   | 4.0       |
| 70°-80°   | 20.7   | 1.3       |
| 80°-90°   | 10.8   | 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°    | 807.6  | 48.8      |
| 0°-40°    | 1167.6 | 70.6      |
| 0°-60°    | 1555.7 | 94.1      |
| 0°-90°    | 1653.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1653.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1278 | 1278  | 1278 | 1278  | 1278 |      |
| 5°  | 1230 | 1247  | 1248 | 1260  | 1271 | 114  |
| 15° | 987  | 1020  | 1074 | 1154  | 1203 | 275  |
| 25° | 684  | 728   | 819  | 957   | 1061 | 312  |
| 35° | 368  | 419   | 544  | 730   | 873  | 227  |
| 45° | 77   | 122   | 274  | 496   | 672  | 72   |
| 55° | 21   | 24    | 60   | 285   | 466  | 20   |
| 65° | 7    | 8     | 33   | 102   | 232  | 8    |
| 75° | 6    | 13    | 18   | 20    | 28   | 6    |
| 85° | 4    | 11    | 14   | 13    | 10   | 5    |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1278.0 | 1278.0 | 1278.0 | 1278.0 | 1278.0 |
| 2.5°  | 1263.8 | 1276.6 | 1268.1 | 1269.5 | 1270.9 |
| 5°    | 1229.8 | 1246.8 | 1248.2 | 1259.6 | 1270.9 |
| 7.5°  | 1180.1 | 1201.4 | 1217.0 | 1244.0 | 1262.4 |
| 10°   | 1120.4 | 1146.0 | 1175.8 | 1219.8 | 1246.8 |
| 12.5° | 1056.5 | 1086.3 | 1127.5 | 1190.0 | 1228.3 |
| 15°   | 986.9  | 1019.6 | 1073.5 | 1154.5 | 1202.8 |
| 17.5° | 913.1  | 950.0  | 1015.3 | 1111.9 | 1172.9 |
| 20°   | 837.8  | 877.6  | 952.8  | 1063.6 | 1138.9 |
| 22.5° | 762.6  | 803.7  | 887.5  | 1011.1 | 1101.9 |
| 25°   | 684.5  | 728.5  | 819.4  | 957.1  | 1060.8 |
| 27.5° | 604.9  | 650.4  | 751.2  | 901.7  | 1016.7 |
| 30°   | 525.4  | 573.7  | 681.6  | 844.9  | 968.5  |
| 32.5° | 447.3  | 495.6  | 613.5  | 788.1  | 921.6  |
| 35°   | 367.8  | 418.9  | 543.9  | 729.9  | 873.3  |
| 37.5° | 288.3  | 343.6  | 475.7  | 670.3  | 823.6  |
| 40°   | 213.0  | 265.5  | 406.1  | 612.0  | 773.9  |
| 42.5° | 142.0  | 193.1  | 343.6  | 553.8  | 722.8  |
| 45°   | 76.7   | 122.1  | 274.1  | 495.6  | 671.7  |
| 47.5° | 41.2   | 65.3   | 214.4  | 438.8  | 622.0  |
| 50°   | 32.7   | 36.9   | 156.2  | 386.2  | 575.1  |
| 52.5° | 27.0   | 29.8   | 102.2  | 336.5  | 521.2  |
| 55°   | 21.3   | 24.1   | 59.6   | 285.4  | 465.8  |
| 57.5° | 17.0   | 19.9   | 38.3   | 237.1  | 411.8  |
| 60°   | 12.8   | 15.6   | 36.9   | 190.3  | 352.2  |
| 62.5° | 9.9    | 11.4   | 34.1   | 146.3  | 289.7  |
| 65°   | 7.1    | 8.5    | 32.7   | 102.2  | 231.5  |
| 67.5° | 5.7    | 7.1    | 29.8   | 65.3   | 173.2  |
| 70°   | 5.7    | 5.7    | 24.1   | 42.6   | 117.9  |
| 72.5° | 5.7    | 9.9    | 21.3   | 28.4   | 71.0   |
| 75°   | 5.7    | 12.8   | 18.5   | 19.9   | 28.4   |
| 77.5° | 5.7    | 14.2   | 15.6   | 15.6   | 15.6   |
| 80°   | 5.7    | 12.8   | 14.2   | 14.2   | 12.8   |
| 82.5° | 5.7    | 11.4   | 12.8   | 14.2   | 11.4   |
| 85°   | 4.3    | 11.4   | 14.2   | 12.8   | 9.9    |
| 87.5° | 4.3    | 11.4   | 12.8   | 11.4   | 7.1    |
| 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 | 0.00             | 0.00 | 0.00 | 0.11 | 0.43 | 16.80          | 18.09 | 17.16 | 18.40 | 18.72 |
|                 | 3H   | 0.00             | 0.12 | 0.00 | 0.45 | 0.82 | 17.52          | 18.66 | 17.90 | 18.99 | 19.36 |
|                 | 4H   | 0.00             | 0.94 | 0.28 | 1.29 | 1.68 | 17.54          | 18.61 | 17.95 | 18.96 | 19.34 |
|                 | 6H   | 1.15             | 2.12 | 1.56 | 2.49 | 2.89 | 17.49          | 18.47 | 17.91 | 18.84 | 19.23 |
|                 | 8H   | 1.79             | 2.71 | 2.22 | 3.10 | 3.51 | 17.47          | 18.39 | 17.90 | 18.78 | 19.19 |
|                 | 12H  | 2.38             | 3.27 | 2.82 | 3.65 | 4.08 | 17.45          | 18.34 | 17.89 | 18.72 | 19.15 |
| 4H              | 2H   | 1.32             | 2.38 | 1.72 | 2.73 | 3.11 | 16.59          | 17.65 | 16.99 | 18.00 | 18.39 |
|                 | 3H   | 2.13             | 2.99 | 2.54 | 3.40 | 3.80 | 17.35          | 18.21 | 17.76 | 18.62 | 19.02 |
|                 | 4H   | 3.14             | 3.91 | 3.57 | 4.33 | 4.78 | 17.38          | 18.15 | 17.81 | 18.57 | 19.01 |
|                 | 6H   | 4.42             | 5.08 | 4.88 | 5.53 | 6.00 | 17.35          | 18.02 | 17.82 | 18.47 | 18.94 |
|                 | 8H   | 5.00             | 5.62 | 5.47 | 6.07 | 6.54 | 17.34          | 17.96 | 17.81 | 18.41 | 18.88 |
|                 | 12H  | 5.57             | 6.12 | 6.05 | 6.60 | 7.08 | 17.35          | 17.90 | 17.83 | 18.38 | 18.85 |
| 8H              | 4H   | 4.55             | 5.17 | 5.02 | 5.62 | 6.09 | 17.26          | 17.88 | 17.73 | 18.33 | 18.80 |
|                 | 6H   | 6.11             | 6.62 | 6.62 | 7.12 | 7.60 | 17.25          | 17.76 | 17.75 | 18.25 | 18.74 |
|                 | 8H   | 6.91             | 7.37 | 7.43 | 7.88 | 8.38 | 17.26          | 17.72 | 17.78 | 18.23 | 18.73 |
|                 | 12H  | 7.76             | 8.16 | 8.27 | 8.65 | 9.23 | 17.32          | 17.72 | 17.84 | 18.22 | 18.79 |
| 12H             | 4H   | 4.77             | 5.32 | 5.26 | 5.80 | 6.28 | 17.22          | 17.77 | 17.70 | 18.25 | 18.73 |
|                 | 6H   | 6.48             | 6.94 | 7.01 | 7.46 | 7.95 | 17.20          | 17.66 | 17.73 | 18.18 | 18.67 |
|                 | 8H   | 7.48             | 7.88 | 7.99 | 8.38 | 8.95 | 17.25          | 17.65 | 17.77 | 18.15 | 18.72 |