

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: P1055230

Luminaire Tested: S122R3DRP-S675D840-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1055230  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122R3DRP-S675D840-X4F0-XX-UDD-F-B  
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

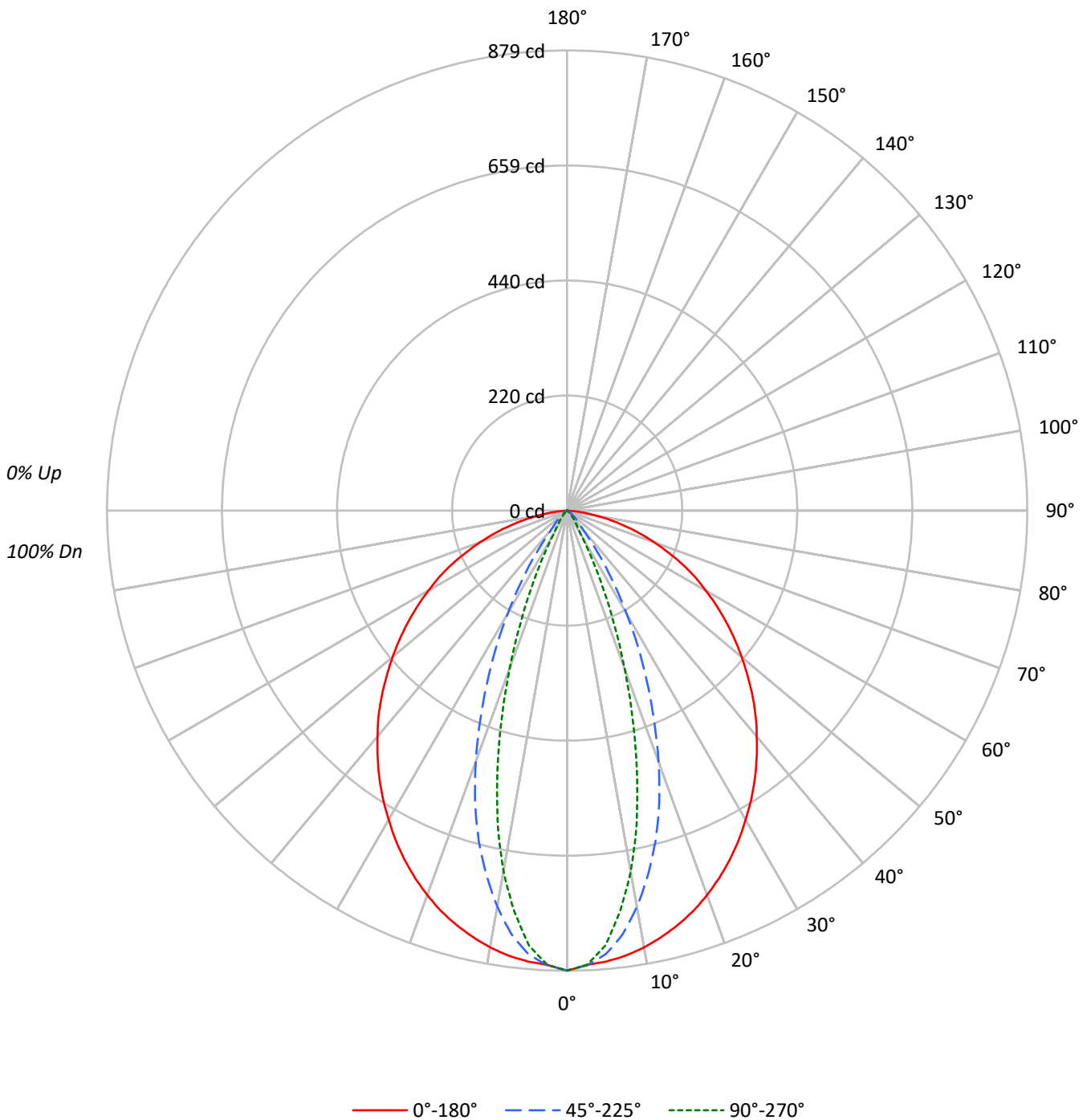
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 799.3 lumens  
Efficiency: N/A  
Efficacy: 30.3 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7  
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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   | 112 | 109 | 106 | 103 | 110 | 106 | 104 | 101 | 102 | 100 | 98  | 99  | 97  | 95  | 95  | 94  | 92  | 91  |    |    |    |    | 91  |   |  |   |
| 2   | 105 | 99  | 94  | 90  | 103 | 97  | 93  | 89  | 94  | 90  | 87  | 91  | 88  | 85  | 88  | 86  | 83  | 81  |    |    |    |    | 81  |   |  |   |
| 3   | 98  | 91  | 85  | 80  | 96  | 89  | 84  | 79  | 86  | 82  | 78  | 84  | 80  | 77  | 82  | 78  | 75  | 74  |    |    |    |    | 74  |   |  |   |
| 4   | 92  | 83  | 77  | 72  | 90  | 82  | 76  | 71  | 80  | 75  | 70  | 78  | 73  | 70  | 76  | 72  | 69  | 67  |    |    |    |    | 67  |   |  |   |
| 5   | 87  | 77  | 70  | 65  | 85  | 76  | 70  | 65  | 74  | 69  | 64  | 72  | 68  | 64  | 71  | 66  | 63  | 61  |    |    |    |    | 61  |   |  |   |
| 6   | 82  | 72  | 65  | 60  | 80  | 71  | 64  | 59  | 69  | 63  | 59  | 68  | 63  | 59  | 66  | 62  | 58  | 56  |    |    |    |    | 56  |   |  |   |
| 7   | 77  | 67  | 60  | 55  | 76  | 66  | 59  | 55  | 65  | 59  | 55  | 63  | 58  | 54  | 62  | 57  | 54  | 52  |    |    |    |    | 52  |   |  |   |
| 8   | 73  | 62  | 56  | 51  | 72  | 62  | 55  | 51  | 61  | 55  | 51  | 60  | 54  | 50  | 59  | 54  | 50  | 49  |    |    |    |    | 49  |   |  |   |
| 9   | 70  | 59  | 52  | 48  | 68  | 58  | 52  | 47  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  | 45  |    |    |    |    | 45  |   |  |   |
| 10  | 66  | 55  | 49  | 45  | 65  | 55  | 49  | 44  | 54  | 48  | 44  | 53  | 48  | 44  | 52  | 48  | 44  | 43  |    |    |    |    | 43  |   |  |   |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 16646 | 16646 | 16646 |
| 5°  | 16441 | 16171 | 15865 |
| 10° | 16300 | 14784 | 13463 |
| 15° | 16064 | 12796 | 10082 |
| 20° | 15758 | 10282 | 6454  |
| 25° | 15369 | 7536  | 3313  |
| 30° | 14913 | 4927  | 1083  |
| 35° | 14458 | 2734  | 631   |
| 40° | 13937 | 1098  | 349   |
| 45° | 13421 | 731   | 134   |
| 50° | 12830 | 416   | 59    |
| 55° | 12241 | 201   | 33    |
| 60° | 11595 | 76    | 0     |
| 65° | 10912 | 45    | 0     |
| 70° | 9788  | 55    | 0     |
| 75° | 8425  | 73    | 0     |
| 80° | 6394  | 0     | 0     |
| 85° | 2630  | 217   | 0     |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13421 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 78.8   | 9.9       |
| 10°-20°   | 183.0  | 22.9      |
| 20°-30°   | 185.8  | 23.2      |
| 30°-40°   | 139.4  | 17.4      |
| 40°-50°   | 97.6   | 12.2      |
| 50°-60°   | 59.8   | 7.5       |
| 60°-70°   | 35.6   | 4.5       |
| 70°-80°   | 16.4   | 2.1       |
| 80°-90°   | 2.9    | 0.4       |
| 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°    | 447.6  | 56.0      |
| 0°-40°    | 587.0  | 73.4      |
| 0°-60°    | 744.4  | 93.1      |
| 0°-90°    | 799.3  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 799.3  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 879 | 879   | 879 | 879   | 879 |      |
| 5°  | 864 | 872   | 850 | 834   | 834 | 82   |
| 15° | 819 | 775   | 652 | 552   | 514 | 231  |
| 25° | 735 | 606   | 360 | 206   | 158 | 338  |
| 35° | 625 | 407   | 118 | 35    | 27  | 391  |
| 45° | 501 | 215   | 27  | 8     | 5   | 386  |
| 55° | 371 | 66    | 6   | 2     | 1   | 331  |
| 65° | 243 | 19    | 1   | 1     | 0   | 240  |
| 75° | 115 | 2     | 1   | 1     | 0   | 122  |
| 85° | 12  | 0     | 1   | 1     | 0   | 21   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 878.6 | 878.6 | 878.6 | 878.6 | 878.6 |
| 2.5°  | 868.5 | 881.6 | 869.5 | 867.5 | 868.5 |
| 5°    | 864.5 | 872.5 | 850.3 | 834.2 | 834.2 |
| 7.5°  | 857.4 | 857.4 | 816.0 | 782.7 | 772.6 |
| 10°   | 847.3 | 836.2 | 768.5 | 715.0 | 699.8 |
| 12.5° | 834.2 | 807.9 | 713.0 | 637.2 | 613.0 |
| 15°   | 819.0 | 774.6 | 652.4 | 552.4 | 514.0 |
| 17.5° | 801.8 | 737.2 | 584.7 | 460.5 | 416.1 |
| 20°   | 781.6 | 696.8 | 510.0 | 366.6 | 320.1 |
| 22.5° | 759.4 | 652.4 | 434.2 | 282.8 | 233.3 |
| 25°   | 735.2 | 605.9 | 360.5 | 206.0 | 158.5 |
| 27.5° | 709.9 | 557.4 | 292.9 | 141.4 | 96.9  |
| 30°   | 681.7 | 507.0 | 225.2 | 83.8  | 49.5  |
| 32.5° | 654.4 | 458.5 | 168.6 | 45.4  | 36.4  |
| 35°   | 625.1 | 407.0 | 118.2 | 35.3  | 27.3  |
| 37.5° | 594.8 | 358.5 | 72.7  | 26.3  | 20.2  |
| 40°   | 563.5 | 309.0 | 44.4  | 19.2  | 14.1  |
| 42.5° | 533.2 | 262.6 | 35.3  | 13.1  | 9.1   |
| 45°   | 500.9 | 215.1 | 27.3  | 8.1   | 5.0   |
| 47.5° | 467.6 | 171.7 | 20.2  | 5.0   | 3.0   |
| 50°   | 435.3 | 133.3 | 14.1  | 3.0   | 2.0   |
| 52.5° | 402.9 | 98.0  | 9.1   | 2.0   | 1.0   |
| 55°   | 370.6 | 65.6  | 6.1   | 2.0   | 1.0   |
| 57.5° | 338.3 | 46.5  | 4.0   | 1.0   | 1.0   |
| 60°   | 306.0 | 36.4  | 2.0   | 1.0   | 0.0   |
| 62.5° | 275.7 | 28.3  | 2.0   | 1.0   | 1.0   |
| 65°   | 243.4 | 19.2  | 1.0   | 1.0   | 0.0   |
| 67.5° | 209.0 | 12.1  | 1.0   | 1.0   | 0.0   |
| 70°   | 176.7 | 7.1   | 1.0   | 1.0   | 0.0   |
| 72.5° | 145.4 | 4.0   | 1.0   | 1.0   | 0.0   |
| 75°   | 115.1 | 2.0   | 1.0   | 1.0   | 0.0   |
| 77.5° | 85.8  | 1.0   | 0.0   | 1.0   | 0.0   |
| 80°   | 58.6  | 0.0   | 0.0   | 1.0   | 0.0   |
| 82.5° | 34.3  | 0.0   | 0.0   | 1.0   | 0.0   |
| 85°   | 12.1  | 0.0   | 1.0   | 1.0   | 0.0   |
| 87.5° | 0.0   | 0.0   | 1.0   | 1.0   | 0.0   |
| 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 | 15.98            | 17.24 | 16.35 | 17.56 | 17.87 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 19.72            | 20.84 | 20.10 | 21.17 | 21.54 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 21.03            | 22.07 | 21.44 | 22.43 | 22.81 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 21.89            | 22.84 | 22.30 | 23.21 | 23.61 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 22.10            | 23.01 | 22.53 | 23.40 | 23.80 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 22.17            | 23.03 | 22.60 | 23.41 | 23.84 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 4H              | 2H   | 15.74            | 16.78 | 16.14 | 17.13 | 17.51 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 3H   | 19.48            | 20.33 | 19.89 | 20.73 | 21.14 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 4H   | 20.77            | 21.53 | 21.21 | 21.95 | 22.40 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 21.69            | 22.35 | 22.16 | 22.79 | 23.26 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 21.95            | 22.56 | 22.42 | 23.01 | 23.48 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 22.05            | 22.59 | 22.54 | 23.07 | 23.55 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 8H              | 4H   | 20.63            | 21.24 | 21.10 | 21.69 | 22.16 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 21.53            | 22.02 | 22.03 | 22.52 | 23.00 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 21.79            | 22.23 | 22.31 | 22.75 | 23.24 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 12H  | 21.90            | 22.29 | 22.42 | 22.79 | 23.36 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
| 12H             | 4H   | 20.58            | 21.12 | 21.07 | 21.60 | 22.08 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 6H   | 21.47            | 21.91 | 21.99 | 22.43 | 22.92 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |
|                 | 8H   | 21.74            | 22.13 | 22.26 | 22.63 | 23.20 | 0.00           | 0.00 | 0.00 | 0.00 | 0.00 |