

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: P1058526

Luminaire Tested: S122RDRP-H865D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058526
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H865D830-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

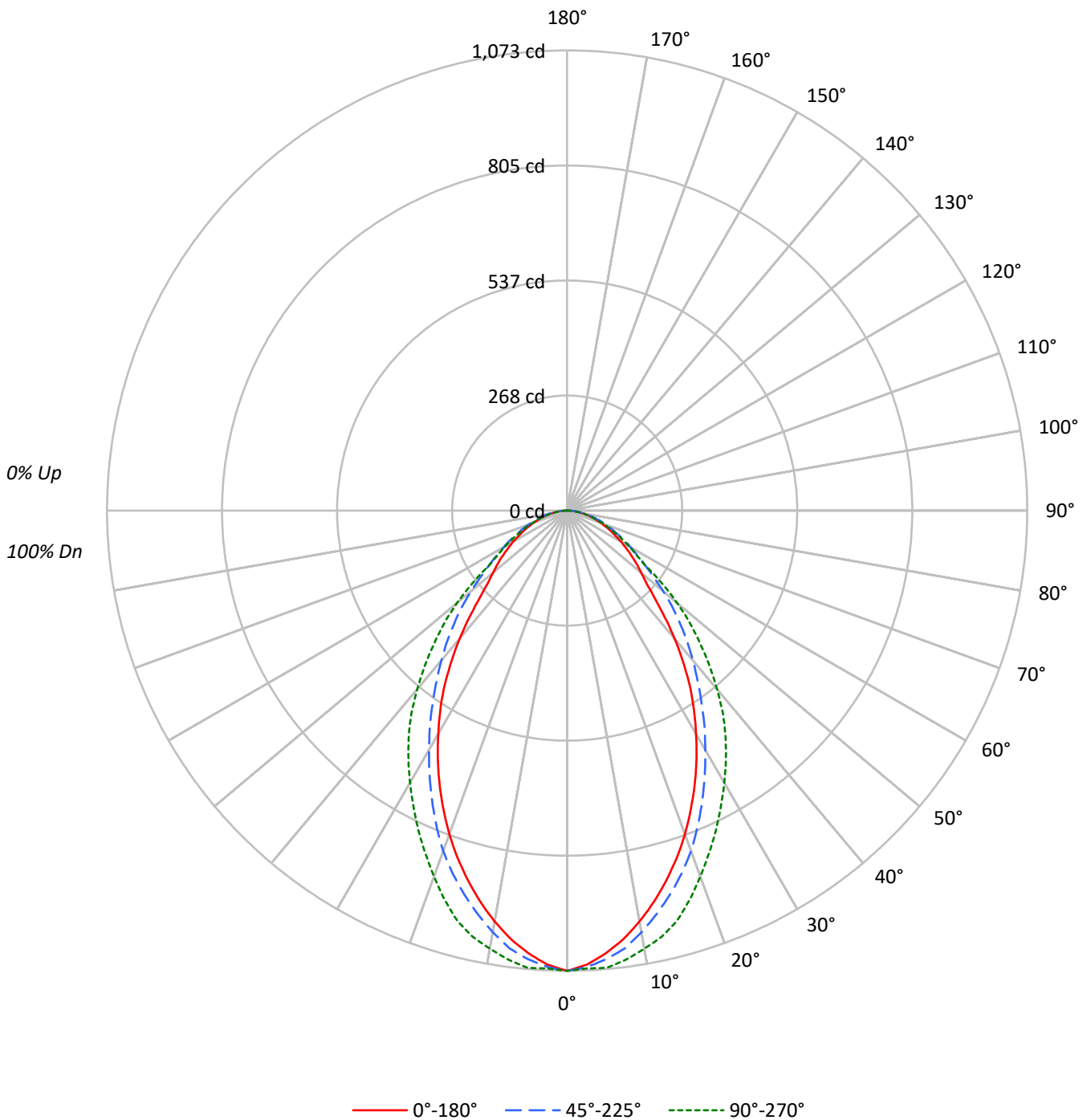
Lumens per Lamp: N/A
Luminaire Lumens: 1749.6 lumens
Efficiency: N/A
Efficacy: 56.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (A_{in}): 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 | 110 | 106 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 |
| 3 | 94 | 85 | 78 | 73 | 92 | 84 | 77 | 72 | 81 | 75 | 71 | 78 | 74 | 70 | 76 | 72 | 68 | 67 |
| 4 | 88 | 77 | 69 | 64 | 85 | 76 | 69 | 63 | 73 | 67 | 62 | 71 | 66 | 62 | 69 | 65 | 61 | 59 |
| 5 | 81 | 70 | 62 | 56 | 80 | 69 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 52 |
| 6 | 76 | 64 | 56 | 50 | 74 | 63 | 56 | 50 | 61 | 55 | 50 | 60 | 54 | 49 | 58 | 53 | 49 | 47 |
| 7 | 71 | 59 | 51 | 46 | 69 | 58 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 45 | 54 | 49 | 44 | 43 |
| 8 | 67 | 54 | 47 | 41 | 65 | 54 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 50 | 45 | 41 | 39 |
| 9 | 63 | 50 | 43 | 38 | 61 | 50 | 43 | 38 | 49 | 42 | 38 | 48 | 42 | 37 | 47 | 41 | 37 | 36 |
| 10 | 59 | 47 | 40 | 35 | 58 | 46 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 38 | 34 | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19803 | 19803 | 19803 |
| 5° | 19195 | 19451 | 19816 |
| 10° | 18227 | 18703 | 19438 |
| 15° | 17063 | 17703 | 18914 |
| 20° | 15772 | 16587 | 17834 |
| 25° | 14331 | 15178 | 16728 |
| 30° | 12810 | 13720 | 15614 |
| 35° | 11229 | 12295 | 14505 |
| 40° | 9397 | 10979 | 13092 |
| 45° | 7529 | 9726 | 11443 |
| 50° | 6459 | 8382 | 9608 |
| 55° | 5903 | 7129 | 7090 |
| 60° | 5366 | 6303 | 6174 |
| 65° | 4886 | 5641 | 5392 |
| 70° | 4483 | 5169 | 4796 |
| 75° | 4199 | 4770 | 4199 |
| 80° | 3921 | 4410 | 3677 |
| 85° | 3917 | 4637 | 3176 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 11443 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 99.1 | 5.7 |
| 10°-20° | 262.3 | 15.0 |
| 20°-30° | 346.0 | 19.8 |
| 30°-40° | 348.4 | 19.9 |
| 40°-50° | 283.5 | 16.2 |
| 50°-60° | 193.3 | 11.0 |
| 60°-70° | 125.5 | 7.2 |
| 70°-80° | 69.1 | 3.9 |
| 80°-90° | 22.5 | 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° | 707.3 | 40.4 |
| 0°-40° | 1055.7 | 60.3 |
| 0°-60° | 1532.5 | 87.6 |
| 0°-90° | 1749.6 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1749.6 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1073 | 1073 | 1073 | 1073 | 1073 | |
| 5° | 1036 | 1056 | 1050 | 1059 | 1070 | 97 |
| 15° | 893 | 916 | 927 | 965 | 990 | 250 |
| 25° | 704 | 727 | 746 | 779 | 822 | 323 |
| 35° | 498 | 524 | 546 | 593 | 644 | 310 |
| 45° | 288 | 324 | 373 | 405 | 438 | 227 |
| 55° | 184 | 202 | 222 | 223 | 220 | 164 |
| 65° | 112 | 133 | 129 | 122 | 124 | 111 |
| 75° | 59 | 73 | 67 | 60 | 59 | 62 |
| 85° | 18 | 24 | 22 | 17 | 15 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1073.2 | 1073.2 | 1073.2 | 1073.2 | 1073.2 |
| 2.5° | 1059.4 | 1076.7 | 1065.1 | 1066.3 | 1068.6 |
| 5° | 1036.3 | 1055.9 | 1050.1 | 1059.4 | 1069.8 |
| 7.5° | 1007.4 | 1027.1 | 1029.4 | 1043.2 | 1055.9 |
| 10° | 972.8 | 994.7 | 998.2 | 1019.0 | 1037.4 |
| 12.5° | 934.7 | 959.0 | 963.6 | 993.6 | 1017.8 |
| 15° | 893.2 | 916.3 | 926.7 | 964.7 | 990.1 |
| 17.5° | 849.3 | 871.3 | 887.4 | 922.0 | 950.9 |
| 20° | 803.2 | 824.0 | 844.7 | 875.9 | 908.2 |
| 22.5° | 753.6 | 776.6 | 796.3 | 827.4 | 864.3 |
| 25° | 703.9 | 727.0 | 745.5 | 778.9 | 821.6 |
| 27.5° | 653.2 | 676.2 | 694.7 | 730.5 | 776.6 |
| 30° | 601.2 | 625.5 | 643.9 | 684.3 | 732.8 |
| 32.5° | 550.5 | 574.7 | 595.5 | 638.2 | 688.9 |
| 35° | 498.5 | 523.9 | 545.8 | 593.2 | 643.9 |
| 37.5° | 443.1 | 472.0 | 499.7 | 547.0 | 596.6 |
| 40° | 390.1 | 422.4 | 455.8 | 499.7 | 543.5 |
| 42.5° | 337.0 | 372.7 | 414.3 | 451.2 | 491.6 |
| 45° | 288.5 | 324.3 | 372.7 | 405.1 | 438.5 |
| 47.5° | 250.4 | 280.4 | 332.4 | 358.9 | 388.9 |
| 50° | 225.0 | 245.8 | 292.0 | 312.7 | 334.7 |
| 52.5° | 204.3 | 221.6 | 253.9 | 267.7 | 279.3 |
| 55° | 183.5 | 201.9 | 221.6 | 222.7 | 220.4 |
| 57.5° | 162.7 | 183.5 | 193.9 | 185.8 | 190.4 |
| 60° | 145.4 | 166.2 | 170.8 | 162.7 | 167.3 |
| 62.5° | 126.9 | 150.0 | 150.0 | 141.9 | 144.2 |
| 65° | 111.9 | 132.7 | 129.2 | 122.3 | 123.5 |
| 67.5° | 96.9 | 117.7 | 111.9 | 105.0 | 105.0 |
| 70° | 83.1 | 102.7 | 95.8 | 88.9 | 88.9 |
| 72.5° | 70.4 | 86.5 | 81.9 | 73.9 | 72.7 |
| 75° | 58.9 | 72.7 | 66.9 | 60.0 | 58.9 |
| 77.5° | 47.3 | 58.9 | 54.2 | 48.5 | 46.2 |
| 80° | 36.9 | 47.3 | 41.5 | 36.9 | 34.6 |
| 82.5° | 27.7 | 35.8 | 31.2 | 26.5 | 24.2 |
| 85° | 18.5 | 24.2 | 21.9 | 17.3 | 15.0 |
| 87.5° | 9.2 | 16.2 | 13.8 | 11.5 | 9.2 |
| 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 | 17.09 | 18.53 | 17.46 | 18.84 | 19.16 | 17.34 | 18.78 | 17.71 | 19.09 | 19.41 |
| | 3H | 18.62 | 19.91 | 19.00 | 20.24 | 20.60 | 18.70 | 19.99 | 19.08 | 20.31 | 20.68 |
| | 4H | 19.18 | 20.39 | 19.58 | 20.74 | 21.12 | 19.18 | 20.39 | 19.58 | 20.73 | 21.12 |
| | 6H | 19.61 | 20.72 | 20.02 | 21.09 | 21.48 | 19.53 | 20.64 | 19.94 | 21.01 | 21.40 |
| | 8H | 19.76 | 20.82 | 20.19 | 21.21 | 21.61 | 19.64 | 20.69 | 20.06 | 21.08 | 21.49 |
| | 12H | 19.87 | 20.88 | 20.30 | 21.27 | 21.70 | 19.70 | 20.72 | 20.14 | 21.10 | 21.53 |
| 4H | 2H | 17.66 | 18.87 | 18.07 | 19.22 | 19.60 | 17.86 | 19.07 | 18.26 | 19.42 | 19.80 |
| | 3H | 19.47 | 20.47 | 19.88 | 20.87 | 21.27 | 19.44 | 20.44 | 19.85 | 20.84 | 21.24 |
| | 4H | 20.21 | 21.11 | 20.64 | 21.53 | 21.97 | 20.03 | 20.93 | 20.47 | 21.35 | 21.79 |
| | 6H | 20.80 | 21.58 | 21.26 | 22.02 | 22.48 | 20.50 | 21.28 | 20.96 | 21.73 | 22.19 |
| | 8H | 21.01 | 21.74 | 21.47 | 22.18 | 22.65 | 20.65 | 21.38 | 21.12 | 21.83 | 22.29 |
| | 12H | 21.17 | 21.82 | 21.66 | 22.30 | 22.77 | 20.76 | 21.41 | 21.24 | 21.89 | 22.36 |
| 8H | 4H | 20.48 | 21.20 | 20.94 | 21.65 | 22.12 | 20.32 | 21.05 | 20.79 | 21.50 | 21.97 |
| | 6H | 21.23 | 21.83 | 21.73 | 22.33 | 22.80 | 20.91 | 21.51 | 21.41 | 22.01 | 22.49 |
| | 8H | 21.56 | 22.10 | 22.07 | 22.61 | 23.10 | 21.13 | 21.67 | 21.65 | 22.19 | 22.68 |
| | 12H | 21.84 | 22.32 | 22.35 | 22.81 | 23.38 | 21.32 | 21.79 | 21.83 | 22.29 | 22.85 |
| 12H | 4H | 20.49 | 21.14 | 20.97 | 21.62 | 22.09 | 20.36 | 21.01 | 20.84 | 21.49 | 21.96 |
| | 6H | 21.28 | 21.82 | 21.79 | 22.33 | 22.82 | 20.98 | 21.52 | 21.50 | 22.03 | 22.52 |
| | 8H | 21.67 | 22.15 | 22.18 | 22.64 | 23.21 | 21.27 | 21.74 | 21.78 | 22.24 | 22.80 |