

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: P1058457

Luminaire Tested: S122RDRP-H675D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H675D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 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

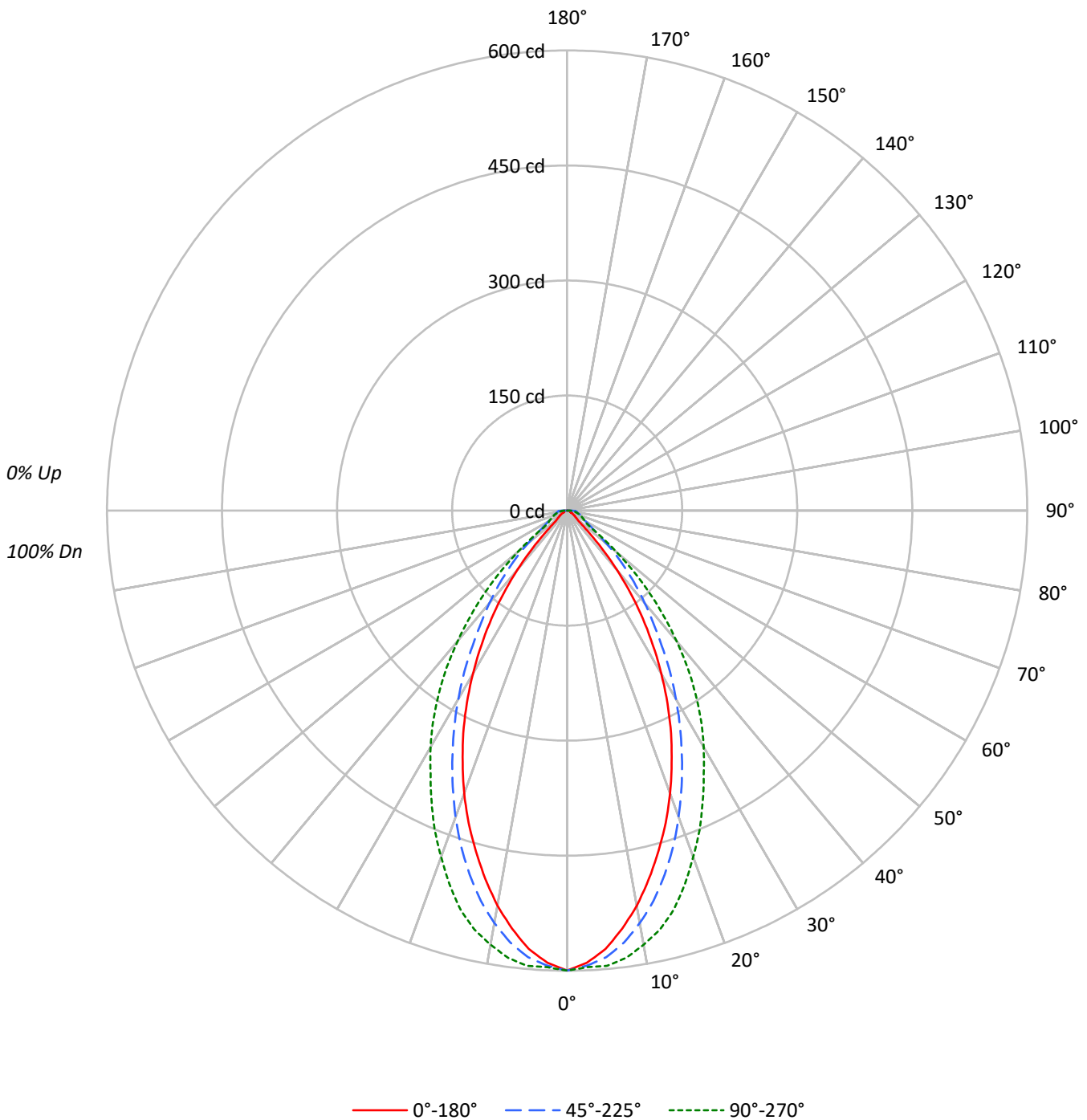
Lumens per Lamp: N/A
Luminaire Lumens: 652.8 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 97 | 98 | 96 | 95 | 95 | 93 | 92 | 90 |
| 2 | 105 | 99 | 94 | 90 | 102 | 97 | 92 | 89 | 94 | 90 | 87 | 91 | 87 | 85 | 88 | 85 | 83 | 81 |
| 3 | 98 | 91 | 85 | 80 | 96 | 89 | 84 | 79 | 86 | 82 | 78 | 84 | 80 | 76 | 81 | 78 | 75 | 74 |
| 4 | 92 | 83 | 77 | 72 | 90 | 82 | 76 | 71 | 80 | 75 | 70 | 78 | 73 | 70 | 76 | 72 | 69 | 67 |
| 5 | 87 | 77 | 70 | 65 | 85 | 76 | 70 | 65 | 74 | 69 | 64 | 72 | 67 | 64 | 71 | 66 | 63 | 61 |
| 6 | 82 | 72 | 65 | 60 | 80 | 71 | 64 | 59 | 69 | 63 | 59 | 68 | 62 | 58 | 66 | 62 | 58 | 56 |
| 7 | 77 | 67 | 60 | 55 | 76 | 66 | 59 | 55 | 64 | 59 | 54 | 63 | 58 | 54 | 62 | 57 | 54 | 52 |
| 8 | 73 | 62 | 55 | 51 | 72 | 62 | 55 | 51 | 60 | 54 | 50 | 59 | 54 | 50 | 58 | 53 | 50 | 48 |
| 9 | 69 | 58 | 52 | 47 | 68 | 58 | 51 | 47 | 57 | 51 | 47 | 56 | 50 | 47 | 55 | 50 | 46 | 45 |
| 10 | 66 | 55 | 48 | 44 | 64 | 54 | 48 | 44 | 53 | 48 | 44 | 53 | 47 | 43 | 52 | 47 | 43 | 42 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11066 | 11066 | 11066 |
| 5° | 10628 | 10825 | 11038 |
| 10° | 9800 | 10230 | 10770 |
| 15° | 8780 | 9386 | 10283 |
| 20° | 7707 | 8348 | 9439 |
| 25° | 6525 | 7209 | 8519 |
| 30° | 5233 | 6051 | 7585 |
| 35° | 3870 | 4841 | 6571 |
| 40° | 2428 | 3791 | 5340 |
| 45° | 952 | 2855 | 3956 |
| 50° | 468 | 1929 | 2423 |
| 55° | 370 | 1264 | 1081 |
| 60° | 284 | 1026 | 993 |
| 65° | 210 | 965 | 965 |
| 70° | 259 | 982 | 982 |
| 75° | 271 | 1098 | 1027 |
| 80° | 404 | 1424 | 1126 |
| 85° | 805 | 2435 | 1630 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 4484 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 54.8 | 8.4 |
| 10°-20° | 138.5 | 21.2 |
| 20°-30° | 165.7 | 25.4 |
| 30°-40° | 139.4 | 21.4 |
| 40°-50° | 79.4 | 12.2 |
| 50°-60° | 31.3 | 4.8 |
| 60°-70° | 19.7 | 3.0 |
| 70°-80° | 14.7 | 2.2 |
| 80°-90° | 9.3 | 1.4 |
| 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° | 358.9 | 55.0 |
| 0°-40° | 498.4 | 76.3 |
| 0°-60° | 609.1 | 93.3 |
| 0°-90° | 652.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 652.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 600 | 600 | 600 | 600 | 600 | |
| 5° | 574 | 586 | 584 | 591 | 596 | 53 |
| 15° | 460 | 476 | 491 | 520 | 538 | 128 |
| 25° | 320 | 335 | 354 | 390 | 418 | 146 |
| 35° | 172 | 187 | 215 | 261 | 292 | 107 |
| 45° | 36 | 64 | 109 | 137 | 152 | 34 |
| 55° | 12 | 25 | 39 | 40 | 34 | 10 |
| 65° | 5 | 22 | 22 | 21 | 22 | 5 |
| 75° | 4 | 15 | 15 | 14 | 14 | 4 |
| 85° | 4 | 11 | 12 | 11 | 8 | 3 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 599.7 | 599.7 | 599.7 | 599.7 | 599.7 |
| 2.5° | 590.1 | 600.7 | 594.0 | 594.9 | 595.9 |
| 5° | 573.8 | 586.3 | 584.4 | 591.1 | 595.9 |
| 7.5° | 549.8 | 563.3 | 568.1 | 579.6 | 588.2 |
| 10° | 523.0 | 538.3 | 546.0 | 564.2 | 574.8 |
| 12.5° | 492.2 | 509.5 | 521.0 | 544.1 | 559.4 |
| 15° | 459.6 | 475.9 | 491.3 | 520.1 | 538.3 |
| 17.5° | 427.0 | 443.3 | 459.6 | 491.3 | 510.5 |
| 20° | 392.5 | 407.8 | 425.1 | 458.7 | 480.7 |
| 22.5° | 356.0 | 372.3 | 389.6 | 424.1 | 451.0 |
| 25° | 320.5 | 334.9 | 354.1 | 390.5 | 418.4 |
| 27.5° | 283.1 | 297.5 | 318.6 | 356.0 | 385.7 |
| 30° | 245.6 | 260.0 | 284.0 | 322.4 | 356.0 |
| 32.5° | 208.2 | 223.6 | 249.5 | 291.7 | 325.3 |
| 35° | 171.8 | 187.1 | 214.9 | 261.0 | 291.7 |
| 37.5° | 136.3 | 153.5 | 184.2 | 229.3 | 258.1 |
| 40° | 100.8 | 120.9 | 157.4 | 197.7 | 221.7 |
| 42.5° | 67.2 | 92.1 | 132.4 | 166.0 | 186.2 |
| 45° | 36.5 | 64.3 | 109.4 | 137.2 | 151.6 |
| 47.5° | 20.2 | 41.3 | 87.3 | 109.4 | 118.0 |
| 50° | 16.3 | 28.8 | 67.2 | 83.5 | 84.4 |
| 52.5° | 13.4 | 25.9 | 49.9 | 59.5 | 54.7 |
| 55° | 11.5 | 24.9 | 39.3 | 40.3 | 33.6 |
| 57.5° | 9.6 | 24.0 | 32.6 | 28.8 | 28.8 |
| 60° | 7.7 | 24.0 | 27.8 | 25.9 | 26.9 |
| 62.5° | 5.8 | 24.0 | 24.9 | 23.0 | 24.0 |
| 65° | 4.8 | 22.1 | 22.1 | 21.1 | 22.1 |
| 67.5° | 4.8 | 20.2 | 20.2 | 19.2 | 20.2 |
| 70° | 4.8 | 19.2 | 18.2 | 18.2 | 18.2 |
| 72.5° | 3.8 | 17.3 | 17.3 | 16.3 | 16.3 |
| 75° | 3.8 | 15.4 | 15.4 | 14.4 | 14.4 |
| 77.5° | 3.8 | 14.4 | 14.4 | 13.4 | 12.5 |
| 80° | 3.8 | 12.5 | 13.4 | 12.5 | 10.6 |
| 82.5° | 3.8 | 11.5 | 12.5 | 11.5 | 8.6 |
| 85° | 3.8 | 10.6 | 11.5 | 10.6 | 7.7 |
| 87.5° | 2.9 | 10.6 | 10.6 | 8.6 | 5.8 |
| 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 | 6.05 | 7.27 | 6.41 | 7.58 | 7.90 | 8.07 | 9.29 | 8.44 | 9.60 | 9.92 |
| | 3H | 7.59 | 8.68 | 7.97 | 9.01 | 9.38 | 10.04 | 11.13 | 10.42 | 11.46 | 11.82 |
| | 4H | 8.15 | 9.16 | 8.55 | 9.51 | 9.89 | 10.96 | 11.97 | 11.36 | 12.32 | 12.71 |
| | 6H | 8.70 | 9.63 | 9.11 | 10.00 | 10.39 | 11.84 | 12.77 | 12.26 | 13.14 | 13.54 |
| | 8H | 8.99 | 9.87 | 9.42 | 10.26 | 10.67 | 12.25 | 13.13 | 12.68 | 13.52 | 13.92 |
| | 12H | 9.34 | 10.19 | 9.78 | 10.57 | 11.00 | 12.69 | 13.53 | 13.12 | 13.91 | 14.34 |
| 4H | 2H | 7.23 | 8.25 | 7.64 | 8.60 | 8.98 | 8.69 | 9.70 | 9.10 | 10.05 | 10.44 |
| | 3H | 9.44 | 10.27 | 9.85 | 10.67 | 11.08 | 10.93 | 11.77 | 11.35 | 12.17 | 12.58 |
| | 4H | 10.49 | 11.24 | 10.93 | 11.66 | 12.10 | 12.00 | 12.75 | 12.44 | 13.17 | 13.62 |
| | 6H | 11.38 | 12.03 | 11.85 | 12.48 | 12.95 | 13.12 | 13.77 | 13.58 | 14.21 | 14.68 |
| | 8H | 11.76 | 12.37 | 12.23 | 12.82 | 13.29 | 13.64 | 14.25 | 14.11 | 14.69 | 15.16 |
| | 12H | 12.18 | 12.72 | 12.67 | 13.20 | 13.68 | 14.22 | 14.75 | 14.70 | 15.24 | 15.71 |
| 8H | 4H | 11.29 | 11.90 | 11.76 | 12.34 | 12.82 | 12.50 | 13.10 | 12.97 | 13.55 | 14.02 |
| | 6H | 12.67 | 13.17 | 13.17 | 13.66 | 14.15 | 13.90 | 14.39 | 14.40 | 14.89 | 15.37 |
| | 8H | 13.39 | 13.83 | 13.91 | 14.35 | 14.84 | 14.63 | 15.08 | 15.16 | 15.60 | 16.09 |
| | 12H | 14.14 | 14.53 | 14.65 | 15.03 | 15.60 | 15.47 | 15.86 | 15.98 | 16.36 | 16.93 |
| 12H | 4H | 11.45 | 11.99 | 11.94 | 12.47 | 12.95 | 12.60 | 13.13 | 13.09 | 13.62 | 14.09 |
| | 6H | 13.00 | 13.45 | 13.52 | 13.96 | 14.46 | 14.11 | 14.56 | 14.64 | 15.08 | 15.57 |
| | 8H | 13.91 | 14.31 | 14.43 | 14.80 | 15.38 | 15.00 | 15.39 | 15.51 | 15.89 | 16.46 |