

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: P1058148

Luminaire Tested: S122RDR-S865D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058148
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: S122RDR-S865D850-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

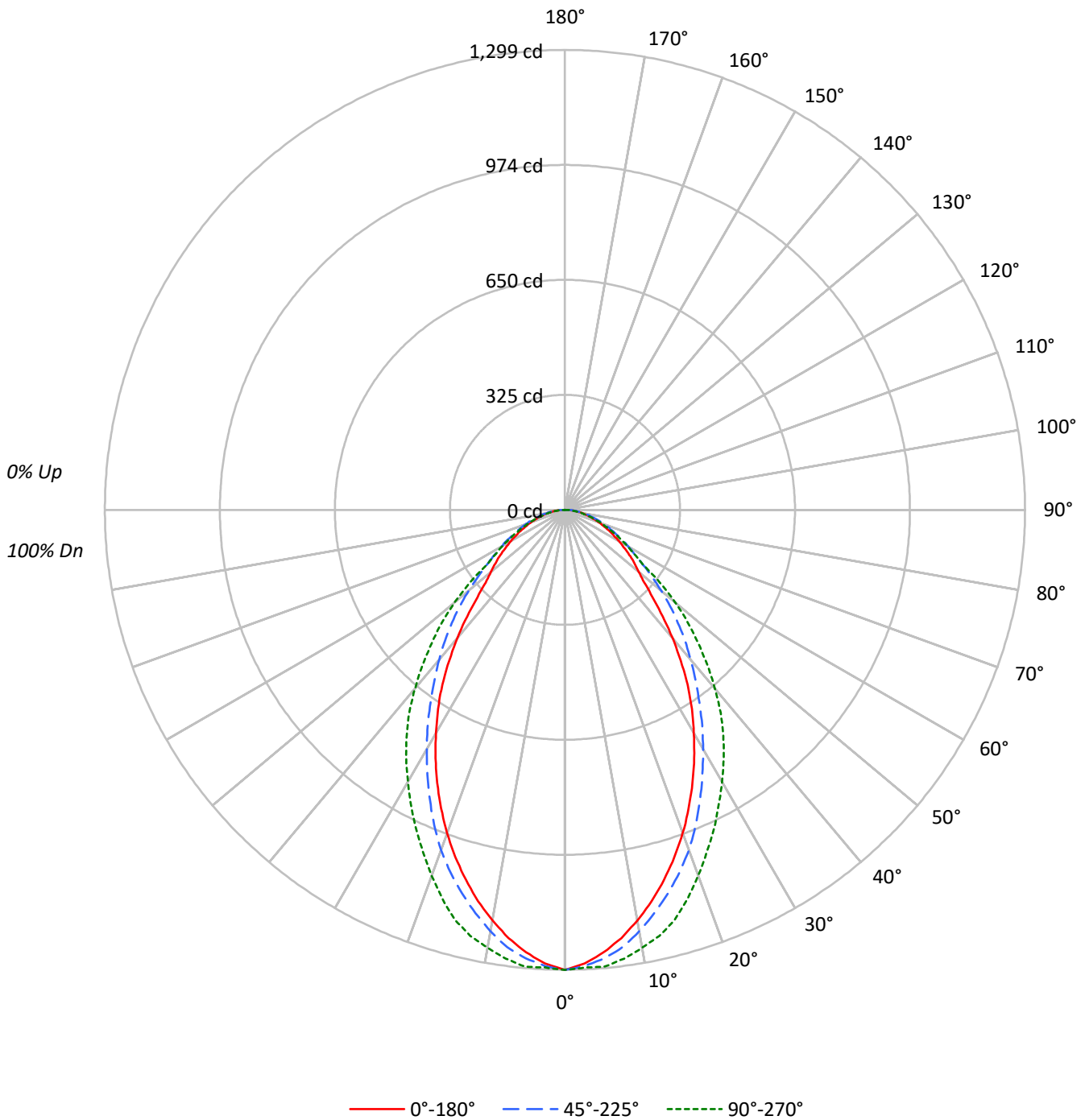
Lumens per Lamp: N/A
Luminaire Lumens: 2118.3 lumens
Efficiency: N/A
Efficacy: 60.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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 | 110 | 106 | 103 | 99 | 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° | 23977 | 23977 | 23977 |
| 5° | 23241 | 23550 | 23991 |
| 10° | 22069 | 22646 | 23536 |
| 15° | 20658 | 21432 | 22901 |
| 20° | 19095 | 20082 | 21593 |
| 25° | 17353 | 18377 | 20254 |
| 30° | 15509 | 16611 | 18904 |
| 35° | 13597 | 14888 | 17562 |
| 40° | 11374 | 13294 | 15852 |
| 45° | 9115 | 11777 | 13854 |
| 50° | 7820 | 10148 | 11632 |
| 55° | 7148 | 8631 | 8586 |
| 60° | 6495 | 7632 | 7477 |
| 65° | 5916 | 6833 | 6528 |
| 70° | 5428 | 6258 | 5805 |
| 75° | 5083 | 5775 | 5083 |
| 80° | 4750 | 5345 | 4452 |
| 85° | 4742 | 5611 | 3853 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 13854 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 119.9 | 5.7 |
| 10°-20° | 317.6 | 15.0 |
| 20°-30° | 418.9 | 19.8 |
| 30°-40° | 421.8 | 19.9 |
| 40°-50° | 343.3 | 16.2 |
| 50°-60° | 234.1 | 11.0 |
| 60°-70° | 151.9 | 7.2 |
| 70°-80° | 83.7 | 3.9 |
| 80°-90° | 27.3 | 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° | 856.4 | 40.4 |
| 0°-40° | 1278.1 | 60.3 |
| 0°-60° | 1855.5 | 87.6 |
| 0°-90° | 2118.3 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2118.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1299 | 1299 | 1299 | 1299 | 1299 | |
| 5° | 1255 | 1278 | 1271 | 1283 | 1295 | 117 |
| 15° | 1081 | 1109 | 1122 | 1168 | 1199 | 303 |
| 25° | 852 | 880 | 903 | 943 | 995 | 391 |
| 35° | 604 | 634 | 661 | 718 | 780 | 375 |
| 45° | 349 | 393 | 451 | 490 | 531 | 275 |
| 55° | 222 | 244 | 268 | 270 | 267 | 199 |
| 65° | 136 | 161 | 156 | 148 | 150 | 135 |
| 75° | 71 | 88 | 81 | 73 | 71 | 76 |
| 85° | 22 | 29 | 26 | 21 | 18 | 24 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1058148

CATALOG NUMBER: S122RDR-S865D850-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1299.4 | 1299.4 | 1299.4 | 1299.4 | 1299.4 |
| 2.5° | 1282.6 | 1303.6 | 1289.6 | 1291.0 | 1293.8 |
| 5° | 1254.7 | 1278.4 | 1271.4 | 1282.6 | 1295.2 |
| 7.5° | 1219.7 | 1243.5 | 1246.3 | 1263.0 | 1278.4 |
| 10° | 1177.8 | 1204.4 | 1208.6 | 1233.7 | 1256.1 |
| 12.5° | 1131.7 | 1161.1 | 1166.6 | 1203.0 | 1232.3 |
| 15° | 1081.4 | 1109.4 | 1121.9 | 1168.0 | 1198.8 |
| 17.5° | 1028.3 | 1054.9 | 1074.4 | 1116.3 | 1151.3 |
| 20° | 972.4 | 997.6 | 1022.7 | 1060.5 | 1099.6 |
| 22.5° | 912.4 | 940.3 | 964.1 | 1001.8 | 1046.5 |
| 25° | 852.3 | 880.2 | 902.6 | 943.1 | 994.8 |
| 27.5° | 790.8 | 818.7 | 841.1 | 884.4 | 940.3 |
| 30° | 727.9 | 757.3 | 779.6 | 828.5 | 887.2 |
| 32.5° | 666.5 | 695.8 | 720.9 | 772.6 | 834.1 |
| 35° | 603.6 | 634.3 | 660.9 | 718.1 | 779.6 |
| 37.5° | 536.5 | 571.4 | 605.0 | 662.3 | 722.3 |
| 40° | 472.2 | 511.4 | 551.9 | 605.0 | 658.1 |
| 42.5° | 408.0 | 451.3 | 501.6 | 546.3 | 595.2 |
| 45° | 349.3 | 392.6 | 451.3 | 490.4 | 530.9 |
| 47.5° | 303.2 | 339.5 | 402.4 | 434.5 | 470.8 |
| 50° | 272.4 | 297.6 | 353.5 | 378.6 | 405.2 |
| 52.5° | 247.3 | 268.3 | 307.4 | 324.1 | 338.1 |
| 55° | 222.2 | 244.5 | 268.3 | 269.7 | 266.9 |
| 57.5° | 197.0 | 222.2 | 234.7 | 224.9 | 230.5 |
| 60° | 176.0 | 201.2 | 206.8 | 197.0 | 202.6 |
| 62.5° | 153.7 | 181.6 | 181.6 | 171.9 | 174.6 |
| 65° | 135.5 | 160.7 | 156.5 | 148.1 | 149.5 |
| 67.5° | 117.4 | 142.5 | 135.5 | 127.1 | 127.1 |
| 70° | 100.6 | 124.3 | 116.0 | 107.6 | 107.6 |
| 72.5° | 85.2 | 104.8 | 99.2 | 89.4 | 88.0 |
| 75° | 71.3 | 88.0 | 81.0 | 72.7 | 71.3 |
| 77.5° | 57.3 | 71.3 | 65.7 | 58.7 | 55.9 |
| 80° | 44.7 | 57.3 | 50.3 | 44.7 | 41.9 |
| 82.5° | 33.5 | 43.3 | 37.7 | 32.1 | 29.3 |
| 85° | 22.4 | 29.3 | 26.5 | 21.0 | 18.2 |
| 87.5° | 11.2 | 19.6 | 16.8 | 14.0 | 11.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)