

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: P1060333

Luminaire Tested: S124RDR-S1195D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060333
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-S1195D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

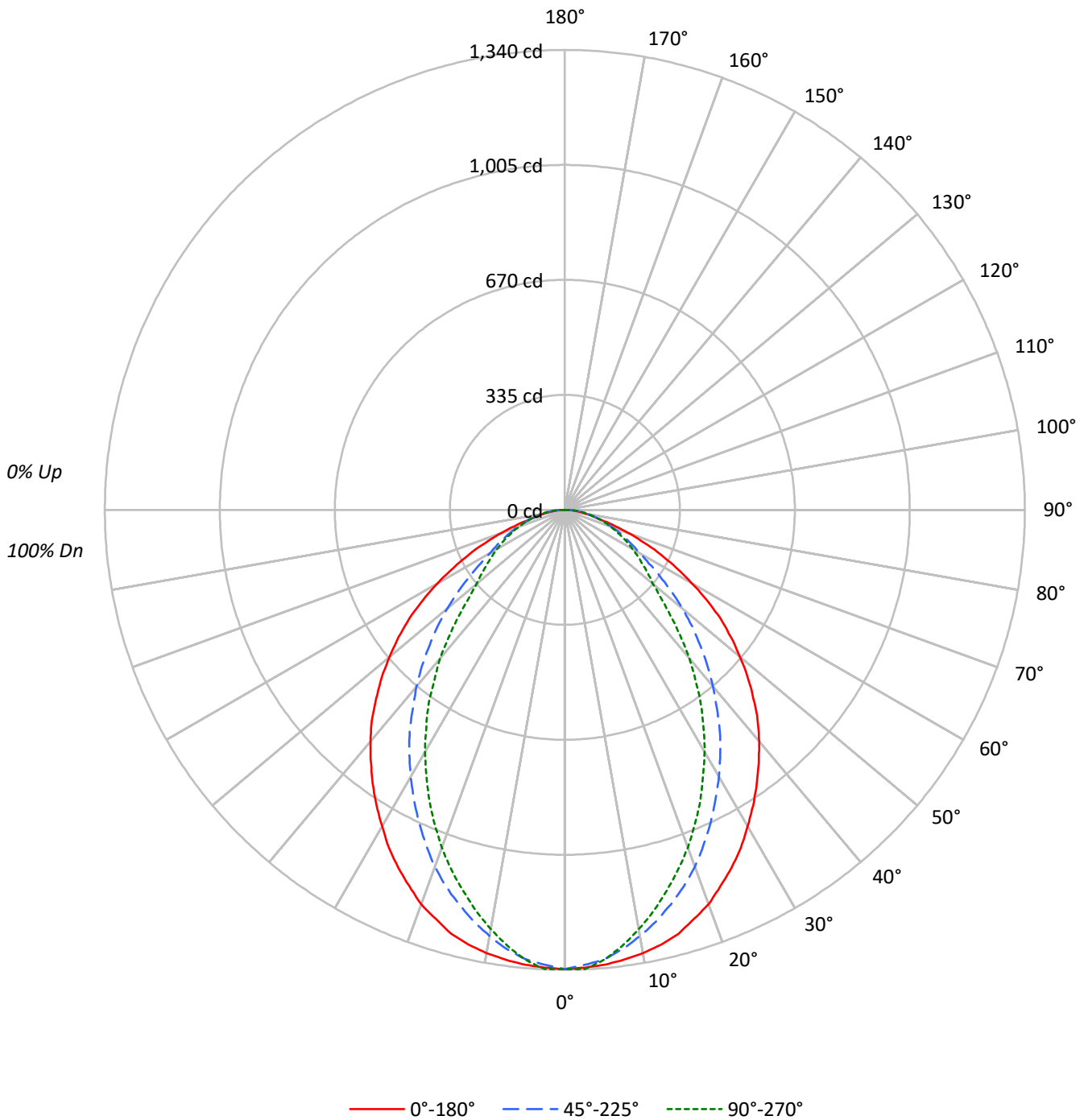
Lumens per Lamp: N/A
Luminaire Lumens: 2580.2 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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 | 102 | 99 | 107 | 104 | 100 | 97 | 99 | 97 | 94 | 96 | 93 | 91 | 92 | 90 | 88 | 86 | | | | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 86 | 82 | 89 | 84 | 80 | 85 | 82 | 78 | 82 | 79 | 76 | 74 | | | | |
| 3 | 93 | 84 | 76 | 71 | 91 | 82 | 75 | 70 | 79 | 74 | 69 | 77 | 72 | 68 | 74 | 70 | 66 | 64 | | | | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 69 | 64 | 59 | 67 | 62 | 58 | 56 | | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 53 | 65 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 52 | 50 | | | | |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 47 | 59 | 52 | 47 | 58 | 51 | 47 | 56 | 51 | 46 | 44 | | | | |
| 7 | 69 | 57 | 48 | 43 | 68 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | | | | |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 39 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | |
| 9 | 61 | 48 | 40 | 35 | 59 | 48 | 40 | 35 | 46 | 40 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 33 | | | | |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 41 | 36 | 32 | 30 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11523 | 11523 | 11523 |
| 5° | 11499 | 11363 | 11376 |
| 10° | 11467 | 11027 | 10849 |
| 15° | 11397 | 10611 | 10233 |
| 20° | 11211 | 10144 | 9596 |
| 25° | 10922 | 9547 | 8874 |
| 30° | 10585 | 8928 | 8099 |
| 35° | 10248 | 8282 | 7273 |
| 40° | 9899 | 7547 | 6346 |
| 45° | 9460 | 6778 | 5305 |
| 50° | 8931 | 5983 | 4487 |
| 55° | 8310 | 5076 | 4156 |
| 60° | 7366 | 4306 | 3927 |
| 65° | 6280 | 3973 | 3717 |
| 70° | 4910 | 3681 | 3522 |
| 75° | 3347 | 3400 | 3400 |
| 80° | 2886 | 3199 | 3273 |
| 85° | 2490 | 3102 | 3419 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9460 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 124.5 | 4.8 |
| 10°-20° | 338.1 | 13.1 |
| 20°-30° | 469.4 | 18.2 |
| 30°-40° | 503.2 | 19.5 |
| 40°-50° | 445.8 | 17.3 |
| 50°-60° | 335.9 | 13.0 |
| 60°-70° | 217.5 | 8.4 |
| 70°-80° | 111.6 | 4.3 |
| 80°-90° | 34.2 | 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° | 932.0 | 36.1 |
| 0°-40° | 1435.2 | 55.6 |
| 0°-60° | 2216.8 | 85.9 |
| 0°-90° | 2580.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2580.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1338 | 1338 | 1338 | 1338 | 1338 | |
| 5° | 1330 | 1332 | 1315 | 1316 | 1316 | 126 |
| 15° | 1278 | 1250 | 1190 | 1160 | 1148 | 360 |
| 25° | 1150 | 1088 | 1005 | 951 | 934 | 529 |
| 35° | 975 | 887 | 788 | 717 | 692 | 610 |
| 45° | 777 | 676 | 557 | 470 | 436 | 599 |
| 55° | 554 | 461 | 338 | 285 | 277 | 492 |
| 65° | 308 | 248 | 195 | 184 | 182 | 306 |
| 75° | 101 | 105 | 102 | 102 | 102 | 119 |
| 85° | 25 | 27 | 31 | 35 | 35 | 29 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P1060333

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1338.2 | 1338.2 | 1338.2 | 1338.2 | 1338.2 |
| 2.5° | 1335.0 | 1339.7 | 1327.1 | 1336.6 | 1339.7 |
| 5° | 1330.3 | 1331.9 | 1314.6 | 1316.1 | 1316.1 |
| 7.5° | 1322.4 | 1319.3 | 1291.0 | 1283.1 | 1281.5 |
| 10° | 1311.4 | 1302.0 | 1261.1 | 1245.4 | 1240.7 |
| 12.5° | 1297.3 | 1280.0 | 1228.1 | 1206.1 | 1196.6 |
| 15° | 1278.4 | 1250.1 | 1190.3 | 1160.5 | 1147.9 |
| 17.5° | 1250.1 | 1213.9 | 1151.0 | 1113.3 | 1099.1 |
| 20° | 1223.4 | 1174.6 | 1107.0 | 1059.8 | 1047.2 |
| 22.5° | 1185.6 | 1133.7 | 1056.7 | 1006.4 | 990.6 |
| 25° | 1149.5 | 1088.1 | 1004.8 | 951.3 | 934.0 |
| 27.5° | 1110.1 | 1041.0 | 951.3 | 894.7 | 872.7 |
| 30° | 1064.5 | 990.6 | 897.9 | 838.1 | 814.5 |
| 32.5° | 1020.5 | 941.9 | 842.8 | 776.8 | 751.6 |
| 35° | 974.9 | 886.9 | 787.8 | 717.0 | 691.9 |
| 37.5° | 927.7 | 835.0 | 726.5 | 657.3 | 624.3 |
| 40° | 880.6 | 783.1 | 671.4 | 592.8 | 564.5 |
| 42.5° | 831.8 | 729.6 | 614.8 | 533.1 | 496.9 |
| 45° | 776.8 | 676.2 | 556.6 | 470.2 | 435.6 |
| 47.5° | 723.3 | 624.3 | 503.2 | 408.8 | 377.4 |
| 50° | 666.7 | 569.2 | 446.6 | 355.4 | 334.9 |
| 52.5° | 610.1 | 512.6 | 391.5 | 314.5 | 305.1 |
| 55° | 553.5 | 460.7 | 338.1 | 284.6 | 276.8 |
| 57.5° | 490.6 | 407.3 | 290.9 | 257.9 | 251.6 |
| 60° | 427.7 | 349.1 | 250.0 | 232.7 | 228.0 |
| 62.5° | 366.4 | 298.8 | 221.7 | 207.6 | 204.4 |
| 65° | 308.2 | 248.4 | 195.0 | 184.0 | 182.4 |
| 67.5° | 251.6 | 204.4 | 169.8 | 163.5 | 160.4 |
| 70° | 195.0 | 163.5 | 146.2 | 143.1 | 139.9 |
| 72.5° | 144.7 | 132.1 | 124.2 | 122.7 | 121.1 |
| 75° | 100.6 | 105.4 | 102.2 | 102.2 | 102.2 |
| 77.5° | 80.2 | 81.8 | 83.3 | 84.9 | 83.3 |
| 80° | 58.2 | 62.9 | 64.5 | 67.6 | 66.0 |
| 82.5° | 40.9 | 44.0 | 48.7 | 50.3 | 51.9 |
| 85° | 25.2 | 26.7 | 31.4 | 34.6 | 34.6 |
| 87.5° | 11.0 | 12.6 | 15.7 | 18.9 | 20.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)